

BODIES

OF

A History of
Rape Kit Protocols
in US Emergency
Nursing and Global
Humanitarian Medicine

EVIDENCE

JAIMIE MORSE

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Bodies of Evidence

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A HISTORY OF RAPE KIT PROTOCOLS
IN US EMERGENCY NURSING
AND GLOBAL HUMANITARIAN MEDICINE

Jaimie Morse



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For survivors

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ABBREVIATIONS

ACEP	American College of Emergency Physicians
ACOG	American College of Obstetricians and Gynecologists
ANA	American Nurses Association
AWHONN	Association of Women's Health, Obstetric and Neonatal Nurses
BWHBC	Boston Women's Health Book Collective
CDC	Centers for Disease Control and Prevention
CEDAW	Convention on the Elimination of All Forms of Discrimination against Women
CODIS	Combined DNA Index System
FIGO	Fédération Internationale de Gynécologie et d'Obstétrique (International Federation of Gynecology and Obstetrics)
HIV	human immunodeficiency virus
IAFN	International Association of Forensic Nurses
ICC	International Criminal Court
ICRC	International Committee of the Red Cross
ICTR	International Criminal Tribunal for Rwanda
ICTY	International Criminal Tribunal for the former Yugoslavia

IRC	International Rescue Committee
MSF	Médecins Sans Frontières (Doctors Without Borders)
NCVS	National Crime Victimization Survey
NDIS	National DNA Index System
NISVS	National Intimate Partner and Sexual Violence Survey
NVAW	National Violence Against Women Survey
PEP	post-exposure prophylaxis
SANE	Sexual Assault Nurse Examiner
SART	Sexual Assault Response Team
STD	sexually transmitted disease
STI	sexually transmitted infection
STS	science and technology studies
UK FCO	United Kingdom Foreign and Commonwealth Office
UK PSVI	United Kingdom Preventing Sexual Violence in Conflict Initiative
UNFPA	United Nations Population Fund
UNHCR	United Nations High Commissioner for Refugees
VAWA	Violence Against Women Act
WHO	World Health Organization

INTRODUCTION

What Is a “Rape Kit”?

MANY PEOPLE’S FAMILIARITY WITH the term *rape kit* in the United States stems from its representation in media—whether in fictional television shows, such as *CSI* or *Law & Order: Special Victims Unit*, or in news stories exposing the so-called rape kit backlog. In the former, rape kits are depicted, usually offscreen, as forensic evidence collection techniques that provide incontrovertible proof, usually DNA, of sexual assault. With the literal discovery of traces from the crime on victims’ bodies, rape kits in TV crime procedurals are often framed as crucial mechanisms in the delivery of justice. Their provision of seemingly objective, scientific evidence suggests a welcome solution to the thorny problems of both identifying perpetrators and adjudicating conflicting accounts.

Contrary to these popular television portrayals of rape kits as definitive arbiters of justice, a number of exposés in the early to mid-2000s revealed that while tens of thousands of rape kits had been administered, their DNA evidence was not sent for testing.¹ Media images depicted shelves lined with rows of cardboard boxes presumably containing potentially probative evidence. Warehouses of untested kits sparked outrage because they seemed to index not just the criminal justice system’s failure to prosecute individual cases, but also, more broadly, its apparent indifference to the problem of sexual assault.

In response, prominent rape kit advocates called on law enforcement agencies to test all kits in police custody and develop better tracking systems to follow kits from evidence collection to processing.² In so doing, advocacy to end rape kit backlogs has positioned the kits as a key answer to failures to prosecute rape cases and achieve justice for victims. Millions of dollars have been allocated by the federal government to clear rape kit

backlogs on the assumption that testing all kits will increase case investigation and prosecution. If only rape kits were actually processed, so the logic goes, perpetrators would be held accountable. Survivors might finally receive validation and closure.³ Consistent throughout such representations of rape kits, then, is the assumption that the kits themselves are not the problem—if anything, their true potential and value have been curtailed by the faulty system in which they are embedded.

But what if the critique of rape kits' processing (or lack thereof) has prevented us from asking a difficult and much more troubling question: What if rape kits themselves *are* part of the problem? What if the very principles and assumptions upon which they are founded, and the expectations and possibilities they engender, are not helping the vast majority of survivors, but are in fact harming them in various ways? This harm could range from subjecting them to invasive, and potentially retraumatizing, physical examinations that *fail* in most cases to produce probative evidence, to undermining survivors' legibility and perceived credibility *as* victims, to reinforcing the very myths around sexual assault that many anti-rape activists have sought to combat.

In this book, I take up two questions that rarely arise in public discourse about rape kits: How often do rape kits produce probative evidence? And, even when evidence is available, does it answer the key legal question of consent? Ultimately, what's at stake is whether rape kits are a help or a hindrance for survivors of sexual violence. The gravity of such questions demands precise definitions. The striking images of cardboard evidence boxes aside, rape kits have never been reducible to a set of physical objects. Indeed, part of what I seek to do in this book is broaden and deepen people's understanding of what we're talking about when we refer to a "rape kit"—and whether the term even means the same thing over time and when it travels to different contexts.

The term *rape kit* is popular shorthand for a forensic evidence collection kit that is sent to state crime labs for analysis. Rape kits are administered in hospitals and clinics as part of a more comprehensive medical forensic exam. These exams became a federal entitlement through the passage of the first Violence Against Women Act in 1994.⁴ In this book, I focus on medical forensic exams for adult and adolescent survivors. Medical forensic exams may include not only collection of blood, semen, saliva, and physical debris from the patient's body (what we commonly think of when we hear the term rape kit), but also diagnosis of bodily injury, completion of medical-legal forms to document clinical findings, and administration of post-rape

therapeutics to address the potential health impacts of rape, including risk of pregnancy and sexually transmitted infections.⁵ Therefore, what we think of when we hear the term rape kit is more accurately understood as a collection of objects, techniques, medical routines, and particular ways of thinking about sexual assault that, when taken together, introduced and instantiated new standards of medical-legal care for patient-victims—what I term a *rape kit assemblage*.⁶ In this way, the *assemblage* is much more than the singular, neatly contained set of physical objects that the word *kit* implies.

Accordingly, this book charts the emergence, evolution, and institutionalization of the practices and protocols that constitute the rape kit assemblage, first in the United States through the lens of practitioner-activists in emergency nursing, and then in global humanitarian contexts through the work of international medical aid organizations. This is a historical and ongoing process driven by the hard work, advocacy, and commitment of numerous noteworthy individuals and groups seeking to better support sexual assault survivors. I emphasize this to contextualize the book's seemingly contrary finding that, *despite* the laudable intentions behind rape kits and the broader medical forensic exams of which they are just one part, they have had a range of unintended and paradoxically negative effects. This is not a story of an inherently “good thing” (rape kits) being derailed by ill-intentioned actors or an indifferent system. It is, rather, the story of how efforts toward the worthy goal of supporting survivors of sexual violence nonetheless produced an assemblage of instruments, routines, and “best practices” that rely upon and reinforce questionable assumptions—not only about sexual assault itself, but also about the uneasy intersection of law and medicine. These efforts have produced a problematic set of evidentiary expectations that often undermine the very people they are meant to serve.⁷

In telling this story, I examine four more specific questions. First, how did the rape kit assemblage become a rights project in emergency medicine? Second, how have evidence collection techniques evolved over time and what impacts have they had on making sexual violence legible? Third, how did rape kit protocols become a tool to advocate for victims of sexual assault in internationally designated humanitarian emergencies? And finally, what do we learn about the interface of medicine and law when we shift the rape kit assemblage from the United States, where medical infrastructures are dense, to conflict zones, where state infrastructures of all kinds are weaker?

The medical sociologist and feminist science and technology studies (STS) scholar Adele Clarke called for researchers to follow biomedical “things” as

they travel.⁸ I follow rape kit protocols that emerged within nursing in the United States beginning in the 1970s, to their uptake and codification in international guidelines, to more recent attempts at adaptation for use in conflict zones. This history reveals how practitioner-activists created new medical routines that sought to align the goals of clinical medicine and criminal law in order to advance the rights of patients. These routines and methods gradually became a more monolithic thing, a new standard of post-rape care, that included rape kits but importantly reframed and went beyond historical methods of forensic examination to include attention to trauma and reproductive health care.

New protocols and guidelines played a crucial role in transforming the rape kit from an instrument of forensic evidence collection into just one part of a more comprehensive set of practices. Clinical guidelines, as procedural standards, were meant to serve as a pathway to rights by changing medical practice and establishing new norms about what is minimally owed to patient-victims in rich and poor countries alike.⁹ Medical guidelines have been characterized as a form of “soft” law because they specify the procedures health care practitioners should follow and articulate in specific terms which drugs or medical devices practitioners should prescribe.¹⁰ Through new standards, the rape kit assemblage simultaneously became a traveling technology of care and a technology of governance and law.¹¹

Bodies of Evidence follows this assemblage over time and across contexts. I begin with an analysis of nurse activism in the United States, demonstrating how some of their models came to influence subsequent international standards adopted by the World Health Organization (WHO) and the United Nations High Commissioner for Refugees (UNHCR). While many actors and institutions facilitated this transition, nursing standards had a particular influence on new global standards because they reflected reforms advanced by women’s movements and provided step-by-step instructions that could be emulated. The people at the helm of this work hoped to advance women’s rights to justice and rights to health care simultaneously.¹² I thus examine two domains rarely considered together, though both have rich historiographies apart: criminal law (as distinct from civil or constitutional law) and humanitarian medicine.

In practice, however, as new standards for post-rape care were implemented more widely, the question arose of whether medical healing and legal justice could be made compatible. The dilemma was, in part, a long-standing one in medical ethics: the *problem of dual obligations* that occurs when clinicians’

obligations to a third party, in this case the state, conflict with their obligations to the patient.¹³ For example, mandatory reporting laws may conflict with laws protecting patient privacy and confidentiality. If state law requires clinicians to report cases of sexual assault to law enforcement, but a survivor does not want to file a police report or share what happened with anyone other than the clinician, then the clinician's obligations to comply with state requirements conflict with the clinician's obligations to maintain the survivor's privacy and confidentiality. In the case of the rape kit assemblage, however, this problem of dual obligations extends beyond clinicians to position not only medical and legal professionals but also patient-victims in the unenviable liminal zone in which care and justice meet and create friction.

This friction is thrown into particularly sharp relief in humanitarian emergencies. The experiences of prominent medical humanitarian aid organization Médecins Sans Frontières (MSF, or Doctors Without Borders) in providing post-rape care over nearly three decades have exemplified these tensions.¹⁴ Investigations of mass rape have threatened to contravene patient rights to confidentiality and security, drawing attention to the weaknesses of legal systems themselves, including the risk that suspected perpetrators might have powerful allies among the police and military. In turn, the investigations have revealed that weak health care systems can also be subject to interference, jeopardizing patient privacy and safety. For medical professionals wanting to help those who have been raped in conflict zones, the problem of dual obligations, already well documented in high-resource settings, is exacerbated and heightens the chances of doing more harm than good for patients.

My objective in this book is to distill lessons and insights from this history that raise important questions for anti-rape activism today. I take up the question of how the evidentiary logics of criminal law and the therapeutic logics of clinical medicine became linked in the medical forensic exam, and trace the work involved in making this tool seem portable and relevant in humanitarian emergencies.¹⁵ I show how the rape kit assemblage was increasingly championed as a *rights project* in medicine that effectively expanded the conceptualization of a human right to health to include not only access to health care but also documentation of harm. Such documentation was seen as a way to make survivors of sexual violence believable by capturing their words, looking for corroborating marks on the body, and rendering their claims legible and, thereby, credible.

Yet one of my key findings is that rape kits and injury detection techniques often produce inconclusive evidence at best or fail to produce any evidence

at all—a phenomenon I term the *knowledge problem of rape kits and injury detection techniques*. This is true both within the United States and in global conflict zones, and though the exacerbating factors and broader implications vary, the difficulty stems from problematic assumptions and unresolved contradictions shared across these contexts. My second, related finding, which is even more troubling, is that this absence or ambiguity of evidence can have an unintended discrediting effect on survivors. I refer to this as the *probative paradox*, whereby the measures championed for their potential to “prove” cases of sexual violence can serve ultimately, if unintentionally, to have the opposite effect. For despite frequently failing to produce probative evidence, rape kits and injury detection techniques institutionalize the expectation and valorization of physical evidence as key to “real,” credible cases of rape, further reinforcing various misconceptions about rape itself—for example, that it is perpetrated by strangers, that it always involves the use of force, and that it always results in bodily injury.¹⁶ But not only is medical evidence alone incapable of answering the key legal question of consent, the documented absence of such evidence can be construed by defense attorneys and interpreted by a broader public as actually disproving survivors’ accounts, as if the absence of evidence proves the absence of crime. And so the measures put in place to better serve survivors can become mechanisms by which their credibility can be challenged.

Bodies of Evidence juxtaposes both of these problems—the knowledge problem of rape kits and injury detection techniques, and the probative paradox—in the United States and in humanitarian emergency contexts in order to draw attention to the contradictions “baked into” the rape kit assemblage. It is tempting to assume that the real problem is one of implementation—either a lack of institutional follow-through resulting in “rape kit backlogs” in resource-rich settings like the United States, or weak or nonexistent state infrastructure and health care making rape kit administration next to impossible in international conflict zones. But the competing objectives of clinical medicine and criminal law, the limitations of medical evidence, and the paradoxical effect of its absence are not problems solved by simply increasing funding, resources, training, or accountability. These problems manifest at different scales and their stakes vary in intensity and visibility across contexts, but they remain fundamentally the same. They are present even when and where forensic labs exist, specially trained doctors and nurses collect evidence, and specially designated police and prosecutors handle sexual assault cases. And they are present even in places where

mass rape is widespread and known to all, where one might *expect* bodily injury to be more common and easily documented, but more often is not. At what point, then, do we begin to ask whether the problem is not with rape kits' resulting legal bodies of evidence but with the very assumptions and logics underlying efforts to collect them?

To be clear, practitioner-activists in emergency nursing and humanitarian medicine have gone to great lengths to combat the unintended discrediting effect that absence or ambiguity of evidence can have on survivors. They have demonstrated that absence of evidence is often consistent with a survivor's account, for example, if the assault involved threat, rather than use, of force. They have worked to ensure that survivors have access to lifesaving sexual and reproductive health care, even when it was controversial or dismissed as too difficult. They have rightfully institutionalized specialized medical care and support services as critical to the health and well-being of survivors. Likewise, there are circumstances in which evidence *is* discovered and may be useful, or when having a medical-legal document that records the survivor's account may assist survivors in pursuing legal cases, especially if they choose not to file a police report at the time of the exam.

Part of what I hope to do in this book is to disaggregate the rape kit assemblage into its component parts. I do so to make clear how the legal evidentiary elements of the rape kit and injury detection techniques have become linked with the therapeutic elements of acute medical care, pregnancy prevention, and presumptive treatment of sexually transmitted infections. I show how linking the evidentiary and therapeutic elements can serve to undermine the initial reform agenda: to better support survivors. Most importantly, my hope is that by openly discussing the difficulty and rarity of producing probative physical evidence, survivors will be aware of how common this problem is and be assured that it *does not mean the assault did not happen*. By parsing the rape kit assemblage's evidentiary and therapeutic elements, we can delink the essential administration of post-rape therapeutics from the assumptions that evidence collection routines reinforce. Both evidence and therapeutics are part of the assemblage as a whole, but it is analytically useful to distinguish them in order to consider how best to support survivors in the future. Indeed, it is precisely because some elements of the contemporary rape kit assemblage—both in the United States and in humanitarian conflict settings—are valuable and worth preserving that, I argue, it is vital to understand just what it comprises. Then, ultimately, we can discern whether and how to disaggregate those elements that help survivors from those elements that harm.

WHAT ACTUALLY IS A RAPE KIT?

To this end, then, it is useful to elaborate on what exactly a rape kit is—both the more specific and popularly imagined physical “kit” that is sent to a crime lab and the more expansive rape kit assemblage I’ve theorized above and will discuss more below. What are we talking about, practically and concretely? Often, we think of a box of swabs that a forensic examiner uses to collect biological specimens from a victim’s body, such as blood, semen, saliva, and other sources of suspect DNA that is sent to a forensic crime lab for testing. However, we usually do not get to see what is inside the box—let alone a detailed inventory of what is actually enclosed. But other forms of evidence, such as bodily injury, are also a key part of the examination, and examiners need instructions on how to document these. A detailed record of the patient’s account of the sexual assault is also critical in guiding the exam and interpreting the findings. To understand what a rape kit is, then, we have to unpack all elements of the examination itself.

A useful starting point is what the Smithsonian National Museum of American History calls an “early example of what is commonly known as ‘rape kit’”: the Vitullo Evidence Collection Kit for Sexual Assault Examination. The Vitullo Kit is considered one of the first standardized forensic evidence collection kits to investigate rape cases in the United States. Before forensic DNA profiling became available in the 1980s, anti-rape activist Marty Goddard and the organization she founded, Citizens Committee for Victim Assistance, collaborated with police sergeant Louis R. Vitullo in the 1970s to create what became known as the Vitullo Kit.¹⁷

Before creating the kit, Goddard and her colleague at the University of Illinois at Chicago, Cynthia Porter-Gehrie, interviewed police, attorneys, doctors, and nurses in Chicago and other US cities to determine why rape cases were not being prosecuted.¹⁸ They found that evidence was often not collected or was not collected properly by physicians and nurses. There was no protocol to follow, or training, for those who treated victims at hospitals. Based on these interviews, Goddard developed what became known as the Vitullo Kit in order to standardize evidence collection and provide instructions to examiners; at that time, these were predominantly male physicians assisted by female nurses.

Figures 1 and 2 are photographs of the Vitullo Kit and its contents circa 1982.¹⁹ A cardboard box contains tools for specimen collection from the



FIGURE 2. Vitullo Evidence Collection Kit for Sexual Assault Examination circa 1982 (open box with instructions). Reprinted with permission from the National Museum of American History, Smithsonian Institution and Cooper Hewitt, Smithsonian Design Museum.

victim’s body: cotton-tipped swabs; glass slides on which to smear semen collected via swabbing; a comb; paper bags for the victim’s undergarments; and labeled envelopes for samples. The kit also included instructions on how to collect the samples (with a brief summary of the instructions also pasted inside the cardboard box) and relevant forms, including a medical report form to be signed by the examiner and an authorization form to release evidence to police to be signed by the victim. Both the “Notes to Examining Physician” and the “Medical Report Form for Sexual Assault Cases” bear the name of the Citizens Committee for Victim Assistance.

As we can see in figures 1 and 2, the Vitullo Kit included not only the tools required for specimen collection, but also instructions to guide the exam and a form for recording the survivor’s account and any clinical findings. Importantly, this form also prompted examiners to provide antibiotics for presumptively treating gonorrhea and emergency contraception for preventing pregnancy. As these inclusions make clear, the “kit” is not a singular, tidy thing. The tools in the box are intended for specimen collection. But in

the instructions and forms, we can also see the influence of women's rights activism through attention to women's health; these were the prompts to provide prophylactic treatment of sexually transmitted infection (what was referred to then as "venereal disease") and prevent pregnancy. The Vitullo Kit itself does not contain the antibiotics or emergency contraceptive pills, but the instructions and forms remind the examiner to provide them. In essence, both evidence collection and medical treatment occur simultaneously during the patient-provider encounter.

While accounts of Goddard's work mention that she consulted with female nurses, often missing is the history of advocacy by nurses themselves to standardize, professionalize, and routinely administer rape kits and the more comprehensive medical forensic exam for sexual assault, of which specimen collection is just one part.²⁰ In the 1970s and 1980s, nurses were key allies of the feminist anti-rape and women's health movements who helped to translate social movement demands into new medical routines in hospital emergency departments. Nurses created more elaborate protocols to provide specific guidance to examiners and over time created trainings that emphasized the trauma that survivors experience.

To illustrate the contributions of nurses and their allies in medicine, it is helpful to note what is *not* included in the Vitullo Kit. The kit focused predominantly on specimen collection, but documentation of physical injury is also a critical part of the broader exam. The Vitullo Kit does not contain the tools for documentation of bodily injury, such as a ruler to measure the size of a wound or a camera for photographs; it does not contain the medical supplies a hospital is expected to provide, such as a pregnancy test, antibiotics, emergency contraceptive pills, or medical instruments needed to conduct the full exam, such as disposable rubber gloves or a speculum for a pelvic exam. The kit developers presumed that a hospital would supply those things; they are referenced on the forms but are not included in the kit.

I note these missing items for two reasons: first, to highlight the resources necessary to use the kit that are generally taken for granted in the United States but that are far from assured in humanitarian emergencies, and second, to emphasize that while one can certainly speak of a material "rape kit," in a much broader but more accurate sense it is not reducible to a set of physical objects. Indeed, the very mundane nature of many of the contents foregrounds that what makes a rape kit a rape kit is not the objects themselves, but the intentions for their use, the assumptions underlying their provision,

and the expectations regarding their processing and medical-legal value. By looking at but also beyond the contents of the Vitullo Kit, we can then see the linkage of forensics and therapeutics as the new focus of anti-rape activism. While the immediate purpose of the kit was to standardize evidence collection and facilitate prosecution, it came to include so much more—not only a menu of therapeutics intended to address the health impacts of an assault, but also a new way of thinking about what constitutes the “best practice” standard of care for survivors of sexual violence. This is how a collection of seemingly mundane objects—from swabs to slides, envelopes, forms, antibiotics, and emergency contraceptive pills—came to represent a new way of thinking about sexual assault and what was minimally owed to survivors of sexual violence, what I refer to as the rape kit assemblage.

In the decades since the Vitullo Kit was first created, contemporary rape kits have remained largely the same. The precise contents vary to some extent by jurisdiction, but in other ways are remarkably similar to the original Vitullo Kit.²¹ What has changed is that, since the advent of forensic DNA profiling, any specimens collected are now potential sources of suspect DNA.²²

When we follow this assemblage from the United States to global contexts of humanitarian emergencies, the instruments and the practices involved in post-rape care necessarily change. In these contexts, a useful starting point is the United Nations Population Fund (UNFPA) Reproductive Health Kit 3 (hereafter, UNFPA Kit 3) for post-rape treatment.²³ The UNFPA is the lead United Nations agency for sexual and reproductive health. Figures 3 and 4 are photographs of the UNFPA Kit 3 for post-rape treatment. It is a cardboard box with a pink cross on it containing post-rape therapeutics: emergency contraceptive pills to prevent pregnancy (i.e., emergency contraception, also commonly known as Plan B), antibiotics to presumptively treat bacterial sexually transmitted infections, and post-exposure prophylaxis, or PEP, to prevent HIV (human immunodeficiency virus) transmission.

Prior to 2019, the UNFPA Kit 3 included a copy of the clinical guidelines on how to treat survivors of rape in humanitarian emergencies first published by the WHO and UNHCR in 2002 and revised two years later; it now includes a post-rape care checklist based on WHO and UNHCR guidelines that includes a link to view and download the most recent edition online.²⁴ Figure 5 shows the cover of the WHO and UNHCR (2004) guidelines.²⁵ The clinical guidelines contain sample medical forms that

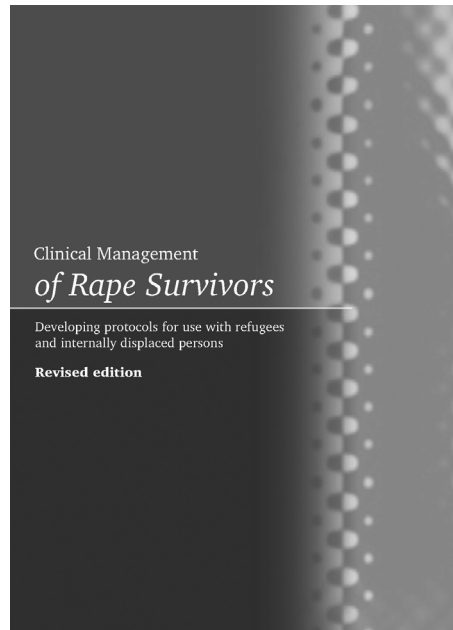


FIGURE 3. UNFPA Reproductive Health Kit 3 for post-rape treatment in 2025 (box). Reprinted with permission from the United Nations Population Fund. Photo credit: Junior Mayindu/UNFPA DRC.



FIGURE 4. UNFPA Reproductive Health Kit 3 for post-rape treatment in 2025 (contents). The two bottles with labels turned away from the camera are antiretroviral drugs for post-exposure prophylaxis for HIV. Reprinted with permission from the United Nations Population Fund. Photo credit: Junior Mayindu/UNFPA DRC.

FIGURE 5. Cover of the WHO and UNHCR 2004 guidelines on clinical management of rape in humanitarian settings. Source: WHO and UNHCR, *Clinical Management* (2004), <https://www.unhcr.org/media/clinical-management-rape-survivors-developing-protocols-use-refugees-and-internally-displaced>.



include pictograms to record physical injury and a sample medical certificate to record the patient's account of the assault and any clinical findings. Given the improbability of forensic crime labs existing in such contexts, tools to collect biological specimens are not included in the kit. The focus of evidence collection instead is the creation of documentary evidence: medical forms that record the patient's account of the assault, the date that the patient was examined, and any clinical findings.

As in the United States, what constitutes the rape kit assemblage in humanitarian settings is shaped by both concrete and more abstract factors. Examples of the concrete are the relative scarcity and reduced quality of resources as well as the more volatile conditions in conflict zones. Some more abstract considerations include the political exigencies involved where humanitarian organizations are allowed, often only tenuously, to operate, and the risks involved where patient confidentiality and privacy are threatened or nonexistent. Documentation of injury has been a particular flash point of controversy in humanitarian medicine because it is associated with both human rights advocacy and investigation of war crimes. Recording evidence of any kind can be perceived as violating the principle of medical neutrality, thereby putting staff and patients at risk of retaliation.

As this discussion suggests, the terms *rape kit* and *rape kit assemblage* may seem like misnomers in humanitarian contexts. It is true that, while the WHO and UNHCR guidelines did (and still do) recommend collection of forensic evidence *if* it can be stored and analyzed, in practical terms, rape kits like those in the United States are generally not feasible in these settings. Injury detection is more rudimentary, and documents are often the only type of evidence available. Consequently, there is no counterpart to the US rape kits in humanitarian settings; instead, the only “kit” per se that is provided, the UNFPA Kit 3, contains post-rape therapeutics like emergency contraception, prophylactic antibiotics, and post-exposure prophylaxis to prevent HIV because hospitals and clinics cannot be assumed to provide them. These differences notwithstanding, I use the same term, rape kit assemblage, in both contexts to underscore that the orienting assumption embedded in “best practice” clinical standards of care has remained the same in both contexts—namely, that the evidentiary elements and therapeutic elements should be linked in the patient-provider encounter as a rights project in emergency medicine. To explain what I mean, figures 6 and 7 illustrate how the evidentiary elements of the rape kit assemblage differ somewhat in each context, but the underlying logic of linking evidence collection and post-rape therapeutics remains the same. Notably, the therapeutic elements are nearly the same in both contexts; they differ slightly with respect to which preventative vaccines are indicated. As I discuss in this book, although the linking of evidentiary and therapeutic elements has been (and still is) contested and controversial in humanitarian medicine, the most recent WHO and UNHCR guidelines published in collaboration with UNFPA in 2020 continue to recommend that international medical aid organizations provide access to post-rape therapeutics and issue medical certificates as documentary evidence so that survivors may pursue legal redress in the future.

Accordingly, as I detail in the second half of the book, while the contents and associated practices of the rape kit assemblage are different in humanitarian settings, it is precisely these differences that reveal the institutional conditions and social relations assumed for their non-conflict-zone counterparts. Conversely, taking note of the thorny issues that remain the same as the rape kit assemblage travels can sharpen our understanding of which contradictions have little to do with context, but lie instead, potentially unresolvable, at the assemblage’s core.

Rape Kit Assemblage in the United States

The collection of objects, techniques, medical routines, and particular ways of thinking about sexual assault and providing medical-legal care for patient-victims—in short, all of the items below as well as their underlying logics and expectations

Rape Kit Protocols



Clinical guidelines and protocols codifying the paired administration of evidentiary and therapeutic elements of post-rape care as the “best practices” standard, including instructions for how to do so

Evidentiary Elements

Rape Kit

The physical sexual assault forensic evidence collection kit that is sent to a crime lab for analysis (including but not limited to cotton swabs, envelopes, and evidence seals)



Kit box



Swabs



Evidence seals



Collection envelopes



Labels



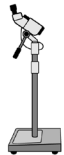
Comb



Collection boxes

Injury Detection Techniques

Diagnostic tools and techniques to identify injury on the body that are frequently used with rape kits, but not materially included in the rape kit per se (including but not limited to gross visualization, toluidine blue, colposcopy)



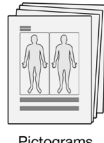
Colposcope



Toluidine blue



Camera



Pictograms



Speculum

Documents

Patient medical records and state/police forms (where applicable) that contain the survivor's account of the assault and any clinical findings



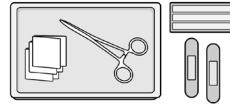
State/police report



Electronic medical record

Therapeutic Elements

Acute Medical Care



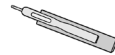
Sutures/Wound Care

Post-Rape Therapeutics

to address potential health impacts (e.g., pregnancy, sexually transmitted infections)



Emergency contraceptive pill



Pregnancy test



Antibiotics



HIV Post-exposure prophylaxis (PEP)



Hepatitis B vaccine



Human papilloma virus (HPV) vaccine

FIGURE 6. Diagram of the rape kit assemblage in the United States. Illustrated by Eva Mae Baucom Natividad.

Rape Kit Assemblage in Humanitarian Settings

The collection of objects, techniques, medical routines, and particular ways of thinking about sexual assault and providing medical-legal care for patient-victims—in short, all of the items below as well as their underlying logics and expectations

Rape Kit Protocols



Clinical guidelines and protocols codifying the paired administration of evidentiary and therapeutic elements of post-rape care as the “best practices” standard, including instructions for how to do so

Evidentiary Elements

Rape Kit

A “rape kit” in the US sense of forensic evidence collection tools generally is not feasible and does not exist in humanitarian settings. The only “kit” per se associated with post-rape care contains post-rape therapeutics (see right).



No kit

Injury Detection Techniques

Typically more rudimentary diagnosis of injury on the body



Pictograms



Speculum

Documents

Patient medical records, state/police forms (where applicable), and medical certificates, sometimes provided by medical humanitarian aid organizations, which contain the survivor’s account of the assault and any clinical findings



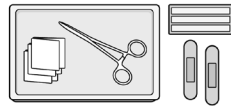
Patient record



Medical certificate

Therapeutic Elements

Acute Medical Care



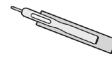
Sutures/Wound Care

Post-Rape Therapeutics

to address potential health impacts (e.g., pregnancy, sexually transmitted infections)



Emergency contraceptive pill



Pregnancy test



Antibiotics



HIV Post-exposure prophylaxis (PEP)



Hepatitis B vaccine



Tetanus vaccine

FIGURE 7. Diagram of the rape kit assemblage in humanitarian settings. To refer to a forensic “rape kit” in humanitarian settings is inaccurate, but I have retained this box in the diagram in order to foreground the differences between the rape kit assemblage in the United States versus in humanitarian settings and to hopefully forestall any confusion related to discussion of the UNFPA post-rape care “kit.” Illustrated by Eva Mae Baucom Natividad.

LEGAL MOBILIZATION IN MEDICINE
AND THE POLITICS OF KNOWLEDGE IN POST-RAPE CARE

To chart this history of anti-rape activism in emergency medicine, I bring together two bodies of scholarship that are rarely placed in conversation with one another. The first is law and social movements, or what socio-legal scholars refer to as “legal mobilization” through courts.²⁶ The second is health and social movements, or what STS scholars have referred to as “political mobilization in health,”²⁷ or simply “health social movements.”²⁸ The first body of work focuses on social movements’ use of litigation as a means of social justice but rarely examines health-related claims or the mobilization of law in medical settings.²⁹ The second body of work focuses on patient activism and health-based social movements but rarely places law or legal processes at the center of analysis.³⁰

I contribute to both areas of scholarship by examining the distinctive features of legal mobilization when brought to bear in biomedical and health care settings, or what I term *legal mobilization in medicine*.³¹ Attempts to align the objectives of medicine and law in post-rape care have led to hybrid forms of medical practice, expansion of professional jurisdiction for nurses, and new methods of knowledge production.

However, as I will show, this alignment has not always served the interests of patients. The problem of dual obligations, discussed above, has already been anticipated and critiqued by an interdisciplinary literature in women’s, gender, and sexuality studies (WGSS) that examines feminist alliances with law enforcement in the United States and the widely institutionalized criminal justice policy responses to domestic and sexual violence enacted since the 1970s.³² Critiques catalog state capture of social movement aims through the co-optation of feminist agendas within law enforcement priorities. But most of this scholarship has yet to attend to the impacts of criminal law on the production of biomedical knowledge about sexual assault in emergency medicine.

By using STS methods to examine the production of clinical knowledge itself, I argue that medical evidence collection techniques help define what they purport to measure, thereby having profound symbolic and material effects on the credibility of victims’ narratives, which crimes are deemed justiciable, and ultimately how events come to be remembered. In this way, I show how controversies surrounding interpretation of clinical findings are, in part, struggles over how to make sexual violence legible, and therefore credible, through biomedical knowledge production.

I also extend WGSS scholarship on feminist alliances with the state in the United States to the domain of humanitarian medicine, asking how the stakes and dynamics of linking clinical medicine and criminal law in post-rape care change when implemented in volatile settings where health care institutions and state infrastructures of all kinds are weak or nonexistent. WGSS scholars have long identified the perils of transnational feminist interventions—and specifically US second-wave feminist projects—becoming forms of cultural imperialism, and they have asked whether and how these risks can be overcome through intentional collaboration.³³ WGSS scholarship on transnational feminist movements to address gender-based violence has focused on the discursive move to recast women's rights as human rights and on how these claims do or do not resonate with, or are adapted to fit, local contexts by activists working in particular places.³⁴

To date though, to my knowledge, the adaptation of rape kit protocols for use in humanitarian emergencies has not received sustained attention. In this book, I ask how the intrusion of criminal legal logics into emergency medicine may be transforming humanitarian medicine as the rape kit assemblage travels not only across national borders, but also across different scales of violence. Standard bioethics concerns characterize some aspects of controversies surrounding the administration of these exams in conflict zones—for example, the meaning and possibility of informed patient consent, how to prevent breaches of privacy and confidentiality, and how to manage potential conflicts of interest. However, I argue that a significant but tacit politics of visibility has emerged through debates about what the exam can and cannot make known, and therefore what it can make legible to courts and societies more broadly.

By following the rape kit assemblage as a rights project in emergency medicine, I also contribute to historiographies of forensic medicine by attending to the impacts of women's rights activism on practices of forensic examination following sexual assault.³⁵ Just as Western biomedicine globalized in earlier epochs, so did its state branch of forensic medicine.³⁶ Historically, forensic examiners were concerned with evidence collection to assist with criminal case investigation. They have conducted autopsies to determine cause of death in suspicious deaths; they have also examined living patients to look for marks on the body that could help adjudicate crime. State forensic examiners, it must be noted, have also been associated with human rights violations and the cover-up of state crimes.³⁷

I argue that three features of the rape kit assemblage distinguish the new standard of care from older practices in forensic medicine: (1) the addition

of specialized medical care (e.g., emergency contraception and prophylactic treatment of sexually transmitted infections) to evidence collection routines; (2) attention to trauma and psychological impacts of rape on patient-victims during the patient-provider encounter; and (3) the creation of specific protocols to standardize, professionalize, and guide routine administration of the exam.

In this book, I seek to illustrate this shift, first through nurse activism to create new clinical guidelines that linked evidence collection and post-rape therapeutics as a rights project in US emergency medicine, and then through the work of international medical aid organizations to adapt rape kit protocols for use with refugees and internally displaced persons.³⁸ By demonstrating the influence of clinical nursing guidelines on the content and recommendations articulated in the first WHO and UNHCR guidelines for use in humanitarian settings, I show how the addition of post-rape therapeutics to evidence collection routines became a defining feature of new international standards of care and, in the process, also redefined what counts as a human right to health in these settings.

FROM US EMERGENCY NURSING TO GLOBAL HUMANITARIAN MEDICINE

The book is organized in two parts to follow the emergence and transnational travel of the object of study (the rape kit assemblage) from US emergency nursing to settings of global humanitarian crisis. In part I, I trace a genealogy of rape kits and their protocols through nurse activism in emergency medicine in the United States, where the story begins in the 1970s. In part II, I examine how rape kit protocols disseminated beyond the United States, eventually influencing international guidelines and sparking controversies regarding their use in humanitarian medicine. After connecting the domestic and humanitarian contexts through the transnational trajectory of the protocols, I then compare and contrast the impacts and ethical concerns that arise in each context, demonstrating the promises and pitfalls of this new approach to addressing rape. That the chapters progress chronologically at the same time that they expand globally is no coincidence, but reflects the temporal and spatial dynamics and diffusion of transnational rights advocacy work. The two halves of the book complement each other and help us fully understand both the history and the contemporary reach of the rape

kit assemblage. By including and contrasting these disparate settings, I also aim to counter arguments that the “blame” for the assemblage’s associated problems can be attributed to any one set of actors or conditions.

In chapter 1, I present a historical case study of practitioner-activists in nursing who promoted these reforms in the United States beginning in the 1970s, ultimately forming the new specialty of forensic nursing. Through the 1970s and 1980s, anti-rape activists and their allies in nursing sought to harness the investigative tools of forensic medicine to increase prosecution of rape. At the same time, they tried to humanize the post-rape clinical encounter by adding therapeutics, giving attention to trauma, and, perhaps most importantly, advocating for nurses—almost always women at the time—to administer the exam independently of physicians—then almost always men. Through their activism, I demonstrate how the rape kit became an assemblage of objects, techniques, and routines, combining specialized medical care and forensic evidence collection, and reflecting the sensibilities of the women’s health movement. The chapter documents the emergence of a new professional role for nurses: what was initially referred to as the Sexual Assault Nurse Clinician or Sexual Assault Nurse Examiner (SANE), which in turn eventually evolved into the broader subspecialty of forensic nursing that was recognized by the American Nurses Association in 1995. I also discuss, however, the conflict built into this new role for nurse examiners as they attempted to provide health care and collect evidence at the same time.

In chapter 2, I explain the “knowledge problem” of rape kits and injury detection techniques—an issue generally acknowledged by medical professionals in the field but rarely discussed in popular discourse. To do so, I describe the contributions of nurses to clinical research on indicators of bodily injury, and I demonstrate how nurses discovered the often inconclusive and nonspecific character of ano-genital injury, which can have an unintended discrediting effect on survivors of sexual violence. I then discuss how research funded through federal initiatives to end rape kit backlogs has provided some of the best evidence that rape kits often do not generate suspect DNA profiles, significantly limiting their ability to facilitate investigation and prosecution as intended. I demonstrate how the evidence that rape kits and injury detection techniques are designed to produce often cannot answer the key legal question of *consent*, thereby limiting its probative value in court.

At the same time that both medical forensic exams and the forensic nursing role were becoming stabilized in US emergency medicine in the 1990s, rape in war became a focus of global anti-rape activism. Further

complicating matters, the HIV pandemic made rape potentially life-threatening. Allegations of rape as a weapon of war and an instrument of genocide in Bosnia and Rwanda ignited concerns that women could suffer the immediate impacts of rape, including unwanted pregnancy and HIV. In chapter 3, I chronicle how feminist activists advocated for post-rape care to be considered a core component of lifesaving health care in humanitarian emergencies. I show how a human right to health was conceptualized to include not only a right to health care, but also a right to documentation of harm through the publication of the first WHO and UNHCR guidelines on what was called “clinical management of rape.” To implement these rights in conflict zones, the UNFPA created, among other reproductive health kits, its own Kit 3 for post-rape treatment. The chapter illustrates how the rape kit assemblage became a traveling technology of care and a technology of governance and law through the promulgation of new international standards of care.

Chapter 4 focuses on MSF (Médecins Sans Frontières), one of the most prominent medical humanitarian aid organizations. Operating in contexts where forensic crime labs do not exist or cannot function, MSF has instead developed its own medical certificates to record a patient’s account and document any clinical findings as evidence that could be used to facilitate prosecution in domestic or international courts. Their work in this area began in the 1990s, and the organization has one of the largest archives of medical certificates in the world. Yet MSF’s experiences demonstrate that the intrusion of criminal legal logics in humanitarian medicine can be difficult to avoid, even for a relatively well-funded and highly visible organization based in Europe. I trace the history of the organization’s work in this area through three historical case studies: the Republic of Congo (or Congo-Brazzaville) from 1998 to 2000; the Darfur region of Sudan from 2003 to 2005; and the eastern region of the Democratic Republic of Congo (DRC, or Congo-Kinshasa) from 2002 to 2014. What becomes clear in these contexts is that even when mass rape is widely evident and known to all, there may be no visible, clinical evidence of bodily injury for a variety of reasons—many of which are similar to those in high-resource settings, such as a delay between when the assault occurred and when the patient was able to seek medical care, or an assault that involved the threat of force rather than the use of force. As I show, though the conditions in humanitarian aid settings are extreme, and the stakes are arguably more dangerous and existential, both the knowledge problem and the probative paradox associated with rape kits and injury detection techniques, as outlined in earlier chapters, endure.

I conclude with a discussion of how a comparative and historical analysis of the assumptions, techniques, and methods of knowledge production embedded in the rape kit assemblage prompts crucial questions about the intersection between medicine, law, care, and justice—a profoundly consequential, yet contested, zone of meaning and practice. I return to the risks of publicly discussing the limitations of rape kits and injury detection techniques in producing probative evidence, but argue that it is imperative that survivors know these limitations—in part, so they can make an informed decision about whether or not to participate in evidence collection or undergo forensic examination. I hope that by naming the probative paradox at the heart of the evidentiary elements of the rape kit assemblage that we can better work to combat the harmful assumption that credible cases necessarily generate physical evidence. I call for greater investment in medical care and ongoing support with funding streams that are distinct from policing and criminal legal systems so that survivors have access to lifesaving post-rape therapeutics and a meaningful choice about whether or not to participate in investigation and prosecution.

FOLLOWING THE OBJECT:
RESEARCHING THE RAPE KIT ASSEMBLAGE

I first encountered rape kits when I volunteered at a rape crisis center as a victim advocate. I served in this role for one year. At the time, I did not know that I would later pursue a PhD or write a book on the subject. I was on call to provide support and accompaniment to survivors of sexual violence when they had rape kit evidence collected shortly after reporting an assault. I was part of what was called a Sexual Assault Response Team, or SART, that involved police, prosecutors, nurse examiners, and rape crisis center staff and volunteers. The medical forensic exams were conducted in a dedicated facility by nurse examiners who were designated as Sexual Assault Nurse Examiners, or SANEs. I went through fifty-two hours of training on domestic and sexual violence. My role as a rape victim advocate was to provide confidential support to survivors during the exam. I would meet with them first to ensure that they knew that the exam was voluntary and that they could stop or take breaks. With their permission, I would sit with them while the nurse asked them what had happened and collected evidence. The nurse would offer emergency contraception and antibiotics to presumptively

treat bacterial sexually transmitted infections. At that time, if the suspect was considered high risk for HIV, the survivor could begin a twenty-eight-day regimen of antivirals called post-exposure prophylaxis, or PEP, to prevent HIV. The nurse would ask the survivor to share details about the assault to help guide evidence collection. After the exam was finished and a survivor had left, I would sometimes stay afterward to talk to the nurse. It was often just the two of us, late at night, at the exam site. Nurses sometimes lamented that they hadn't been able to recover any potential sources of suspect DNA. Some patients had bruises or cuts, but many did not.

Low prosecution rates were a known problem. The district attorney who trained my cohort of volunteers emphasized that most cases turned on the question of consent; evidence alone often could not answer the question of consent. She said that unless she thought a jury could be convinced that the victim did not consent, she would not take the case. What this meant was that, despite significant investment of resources in collecting evidence and pursuing prosecution, very few cases were going to go court and even fewer were resulting in conviction. Reasons for low prosecution rates included a lack of witnesses (e.g., if the assault was behind closed doors), or the suspect was known to the victim; in the latter case, juries were often reluctant to believe one person's testimony over another. However, I do not remember anyone discussing the problems of absent or ambiguous evidence *per se*. I became concerned that survivors were enduring a very invasive exam—one that often involved a pelvic exam just a few hours or days after an assault and quite literally could be experienced as reenacting the assault—and yet very few cases were going to court. Based on my informal conversations with nurses, it seemed that the exam rarely produced conclusive evidence and in some cases resulted in no physical evidence at all.

I do not use any of the specific observations or interactions from that time in this book, but the experience informs the questions that I ask and made me a better reader of the published literature on rape kits and the evolution of post-rape medical care. In terms of methodology, as mentioned above, I seek to implement the classic STS methodology of “following the object” by following the rape kit assemblage as it traveled over time and space. I use comparative and historical methods in sociology to do so, combining archival, interview-based, and ethnographic methods to trace the origins and transnational travels of the rape kit assemblage.³⁹ To reconstruct the history and controversies surrounding the object at different points in time, I conducted over fifty in-depth interviews with nurses, doctors, lawyers, activists,

and other experts involved in this history. I also conducted fieldwork at international meetings in global centers of diplomatic and humanitarian policymaking (including Geneva, London, Paris, and The Hague). To verify my understanding of the history and locate key moments in contemporaneous primary source documents, I conducted archival research and reviewed published and unpublished literature in medicine, law, and global health.

I carried out the research in three phases. In phase 1, between March 2011 and October 2012, I traced the history of anti-rape activism in nursing through what became the new specialty of forensic nursing. I used nurse activism as a historical lens to examine how the rape kit assemblage emerged and became stabilized as best practice in the United States beginning in the 1970s. To identify early nurse reformers who entered the publication record, I used the first lists of known Sexual Assault Nurse Examiner, or SANE, programs published in the *Journal of Emergency Nursing* in 1991 and 1996 to generate a list of possible authors; many of these published infrequently (if at all) or only in state-specific nursing association journals. I supplemented this inventory of possible authors with publicly available lists of the International Association of Forensic Nurses (IAFN) leadership and award winners. After identifying prominent leaders in forensic nursing, I used their writings to reconstruct the history of this new specialty. I retrieved published journal articles and editorials through the National Library of Medicine's online search engine PubMed and used citation patterns to identify additional manuscripts.⁴⁰ I examined how nurses articulated their initial reasons for reform, what barriers they identified over time, and how they responded to those barriers. To verify my understanding of this history, I interviewed nurses and allied physicians who participated in the reform efforts under study. I also attended the IAFN Twentieth Annual Scientific Assembly in October 2012, which included presentations and events commemorating the twentieth anniversary of the association's founding. The conference facilitated formal and informal conversations with early nurse reformers about the development of the specialty. I also conducted archival research using materials held in the Boston Women's Health Book Collective Records collection at Schlesinger Library of the Radcliffe Institute for Advanced Study; with this collection, I could further document the early links between feminist anti-rape and feminist women's health activism that informed the work of early nurse reformers in the 1970s and 1980s.

In phase 2, between June 2013 and December 2014, I followed clinical guidelines on post-rape care into a major global initiative to facilitate

investigation and prosecution of rape as a war crime; this was the United Kingdom's Preventing Sexual Violence [in conflict] Initiative (UK PSVI) organized by the UK Foreign and Commonwealth Office (UK FCO) under the leadership of former British Foreign Secretary William Hague and celebrity UNHCR Ambassador Angelina Jolie. The initiative generated controversy surrounding the ethics of linking therapeutics and evidence collection in humanitarian medicine. The UK FCO convened an expert working group that included some of the leading figures and organizations engaged in work to address rape in war. A key output of the initiative was the development and publication of a new international protocol to document rape as a war crime.⁴¹ I served as an invited expert commentator on the first and second editions of the UK protocol published in 2014 and 2017, respectively. Rape kit protocols and guidelines on medical forensic examination were among the models considered for emulation in the new UK protocol, including US standards adapted for use in conflict zones by the American human rights advocacy organization Physicians for Human Rights, in collaboration with American forensic nurses. As part of this process, I attended diplomatic, expert, and public forums to discuss the UK protocol's purpose and content, culminating in the UK's Global Summit to End Sexual Violence in Conflict in London in June 2014, the largest event ever held on the subject. My role as an invited expert enabled me to observe the controversies that emerged surrounding the utility, appropriateness, and ethics of linking therapeutics and evidence collection in settings of protracted armed conflict and episodic political violence. While many of these proceedings were confidential, my informal conversations with experts, practitioners, and activists engaged in this initiative gave me insight into the challenges of adapting and implementing standards of post-rape care for use in conflict zones. These networks also facilitated formal and informal interviews with practitioner-activists in humanitarian medicine, international criminal law, and human rights advocacy who were based in Western Europe at the time (Copenhagen, Geneva, The Hague, London, and Paris).

My international fieldwork overlapped with the twentieth anniversaries of the International Criminal Tribunal for Rwanda (ICTR) and the former Yugoslavia (ICTY) that had pursued legal prosecution of rape as a war crime. The impending closures of both courts prompted much conversation among experts and activists about the promises and pitfalls of international criminal law in providing legal redress for rape in war. Questions of evidence were central to those conversations. In particular, I was very fortunate to

be invited to attend two international meetings that greatly informed my understanding of the role of evidence in prosecution of international crimes of sexual violence, including the twentieth anniversary conference of Medica Zenica, a feminist medical humanitarian aid organization that had provided medical care to survivors of sexual violence in Zenica, Bosnia-Herzegovina, during the Balkans conflict, and the twentieth anniversary conference of the ICTR in Arusha, Tanzania, that included a two-day meeting on whether and how national prosecutors could adapt the novel legal strategies of the Rwanda tribunal for the purpose of prosecuting international crimes of sexual violence in domestic courts.

Finally, in phase 3, in 2017 and 2019, I conducted additional formal and informal interviews with experts and activists involved in the creation of some of the first international clinical standards for post-rape care, including the first guidelines published by WHO and UNHCR. Two fellowships facilitated these interviews: a junior fellowship at the Brocher Foundation in Hermance, Switzerland, in 2017, and a postdoctoral fellowship in global health at Yale University in 2018–2019. With the help of colleagues and mentors, I was able to meet individuals who had been at the helm of international advocacy for these new clinical standards.

To supplement my interview and ethnographic data, I analyzed published and unpublished literature in medicine, law, and global health to trace the evolution of post-rape care. This involved creating an original archive of published literature available in PubMed. I collected forensic nursing textbooks, reference texts, and training materials to trace the evolution of thinking around the likelihood of injury following sexual assault. I also retrieved published research on rape kit backlogs and federal grantee reports from jurisdictions funded to clear their backlogs through the US Department of Justice's online database, the National Criminal Justice Reference Service.⁴²

I did not seek to identify or recruit survivors of sexual violence for interviews. Doing so would have raised a host of ethical concerns, including the challenges of ensuring privacy and confidentiality as well as the risk of retraumatization when survivors are asked to share the harm that they have experienced. Moreover, I was interested in tracing how a new way of thinking had emerged that fundamentally altered the patient-provider encounter. Unfortunately, many survivors of sexual violence have not had the opportunity to influence the content and character of medical practice in this field. Instead, I chose to trace the historical origins of a new way of thinking about sexual violence and how it has become standardized in emergency medicine

over the past fifty years, as recounted by experts, activists, and public figures involved in this history. That said, in the field of anti-rape advocacy, many prominent activists have spoken out publicly as survivors of sexual violence and have been recognized as experts on sexual violence.⁴³ Therefore, there is not a bright line between survivors and experts in this field. Research protocols were approved by institutional review boards at Northwestern University, Yale University, and the University of California, Santa Cruz.

WHAT'S AT STAKE

A major challenge in conducting research in this field is the political sensitivity of the subject matter, particularly in settings of armed conflict and episodic political violence. In volatile situations, cooperation with criminal prosecution, stated or implied, can put organizations, their staff, and the individuals they serve at risk of reprisals from accused perpetrators. For health care practitioners, lawyers, and activists who may be called to testify in court, any published interviews attributed to them by name can be used against them in court to undermine their testimony or suggest contradictory interpretations of evidence. Many individuals working in humanitarian medicine and international criminal law agreed to speak with me on the condition that our conversation was completely off the record. I cannot cite these conversations. Even individuals who agreed to speak with me confidentially did not want their names used in my published work or any excerpts of their taped interviews to be attributed to them in any way. Even individuals who agreed to interviews for attribution requested that I send them the excerpts of transcribed interviews that I planned to use for their review prior to publication, for fear of being misunderstood, misquoted, or quoted out of context. Some have had bad experiences with the media. As a result of the highly sensitive nature of my inquiry and the reluctance of many to speak on the record, some of the most important and informative conversations that I had were completely off the record and must remain so. As a result, in many instances, I have had to triage information from publicly available sources and offer interpretations of published material in lieu of recorded, transcribed interviews with the experts, activists, and health care practitioners with whom I spoke. I use pseudonyms and omit identifying details from interview excerpts to protect the confidentiality of my interlocutors.

But on a broader level, there are also risks in publicly discussing the limitations of rape kits and medical forensic exams in producing probative evidence. Routine administration of rape kits in hospital emergency departments is one of the most significant institutional reforms associated with the anti-rape wing of the second wave feminist movement in the 1970s. Some people justly worry that highlighting the limitations of evidence could jeopardize the broader reforms that the anti-rape movement sought to institutionalize. The therapeutic elements of the exam have become so tightly linked with forensic evidence collection in clinical standards of care that questioning the value of evidence collection may be perceived as putting the availability of therapeutics in jeopardy as well. Most troublingly, could critiques of the benefits of forensic evidence collection be used to undermine and even dismantle the broader protocols that have made post-rape care more attentive to the physical and emotional needs of survivors? Understandably wary of such unintended outcomes, many people have asked me: What is the alternative? Flawed as they may be, the tools, techniques, and practices that make up the rape kit assemblage are at least better than nothing and surely constitute an advance from a not-so-distant history in which survivors may have received no care at all, and rape itself was barely conceptualized, let alone prosecuted, as a crime. Such a perspective is, technically speaking, true, but frames the issue in overly binaristic terms and implicitly relies on a reductionist logic that survivors and their advocates should avoid critique in order to safeguard what they've gained. It is also true that medical forensic evidence collection and injury detection techniques may be necessary and, in a small number of cases, beneficial for survivors who wish to pursue criminal prosecution. However, even for those who wish to seek prosecution, I believe that all survivors should know that these exams often do not produce conclusive or probative evidence. Knowing this is important because it is crucial to counter the widely held assumption that absence of evidence implies absence of crime. That is simply not true.

To return to the TV crime procedurals with which I started the chapter, the problem with dramatizing fictional cases in which a rape kit provides the clear evidence to deliver justice is that it presents what is actually an extremely rare outcome as if it were both likely and typical. Then, in the real world—both in the United States and abroad—when we rest the validity and credibility of sexual violence survivors' experiences on such evidence, we establish and inadvertently enforce it as the gold standard defining a "real"

rape case and its resolution. Likewise, when so much blame focuses on rape kit backlogs or on the less than ideal settings in which they might be administered, solutions focus on improving the collecting or handling of evidence, rather than critically examining the very assumptions and expectations built into what we consider “evidence” in the first place.

Under the law, the victim’s body is part of the crime scene. Processed through the rape kit assemblage, survivors of sexual violence become bodies of evidence, whose truth can ostensibly be measured and objectively assessed. Though intended to help survivors, this approach all too often positions them as failing to prove their own experiences. My hope is that sharing information about some of the limitations of rape kits and their associated practices and protocols will prompt conversations about how to move forward, which elements we should fight to protect and even expand, and how advocacy agendas can better support survivors.

PART I

*Legal Mobilization
in US Emergency Medicine*

Prologue to Part I

IN PART I, I discuss a process of legal mobilization in US emergency medicine through the lens of nurse activism for new standards of post-rape care. Beginning in the 1970s, early nurse reformers mobilized law and rights to change the content and character of medical practice through three principal strategies. Two of their strategies to advance reform tied new standards of care to a new professional nursing role. Nurses advocated for new clinical guidelines that linked forensic evidence collection and post-rape therapeutics to advance rights to justice and rights to health care for survivors of sexual violence. In the process, nurses also advocated to expand their own professional jurisdiction to act as forensic examiners, often referred to as Sexual Assault Nurse Examiners, ultimately creating a new specialty in nursing. I show how new clinical guidelines transformed the rape kit into a collection of objects, techniques, medical routines, and particular ways of thinking about sexual assault—what I refer to as the rape kit assemblage. In addition, early nurse reformers sought to render survivors' accounts legible, and therefore credible, through biomedical knowledge production. To this end, their third strategy of reform involved conducting clinical research on the physical, bodily harm that survivors may experience.

Yet there are two contradictions at the heart of these reforms. First, in this new role, nurses encountered role conflict as they tried to simultaneously provide medical care to patients and collect evidence for police and prosecutors. The problem of dual obligations arose when their obligations to patients conflicted with their obligations to the state, which threatened to undermine their initial reform agenda. Second, one of my key findings is that rape kits and injury detection techniques often produce inconclusive evidence or fail to produce any evidence at all—what I refer to as the knowledge problem of

rape kits and injury detection techniques. Absence or ambiguity of evidence, in turn, can have an unintended discrediting effect on survivors—what I refer to as the probative paradox.

To illustrate the problems of evidence, I describe the evolving knowledge base in the United States surrounding the likelihood of injury detection and the likelihood of suspect DNA recovery through two exemplary case studies: (1) the work of nurses to document physical, bodily injury since the 1970s, and (2) four initiatives to clear rape kit backlogs since the 2000s. Taken together, these two case studies illustrate five major challenges that have emerged surrounding the utility and efficacy of rape kits and injury detection techniques in producing probative evidence: (1) how the faulty assumption that rape and sexual assault involve ano-genital injury animated much of the research in this field early on but was later shown to be unfounded—nonconsensual sex may not result in ano-genital injury and consensual sex can involve ano-genital injury, such that presence or absence of ano-genital injury most often cannot answer the key legal question of consent; (2) how defense attorneys challenged this faulty assumption in court and undermined nurse examiners' credibility as expert witnesses; (3) how the lack of a clear referent for consensual and nonconsensual sex confounds comparison and poses a foundational problem for case-control study designs; (4) how national surveys confirm what anti-rape activists have long said—that most survivors of sexual violence know the person who harmed them and, therefore, suspect identity is not in question, rendering forensic identification of diminished probative value in case adjudication; and (5) how research on rape kit backlogs suggests that rape kits often do not generate suspect DNA profiles or CODIS hits, impeding suspect identification. And even when suspect DNA is recovered or physical injury is present, very often it is still not possible to establish lack of consent, which is a key part of the legal investigation.

But by the time the limits of rape kits and their protocols in generating probative evidence started to become more widely discussed in the forensic nursing field in the early 2000s, women's rights activists had already begun to urge United Nations agencies to endorse the new approach to rape that nurses helped institutionalize in the United States, a process of legal mobilization in humanitarian medicine to which I turn in the second part of the book.

Nurse Activism for “Rape Kit” Protocols

IN THE EARLY 1970s, the feminist anti-rape movement rose to prominence in the United States, calling attention to rape and sexual assault as nearly ubiquitous forms of violence against women.¹ Activists held consciousness-raising groups, established rape crisis centers, and led efforts to reform rape laws nationwide.² Simultaneously, the feminist women’s health movement critiqued the poor treatment of women by medical professionals and demanded recognition of women’s knowledge of their own bodies as a type of embodied expertise in its own right.³ In the mid-1970s, a turn toward more overt advocacy for institutional reform began to emerge. Activists challenged prevailing attitudes of police and doctors, who were predominantly men at that time and who were often dismissive of women who reported rape; such attitudes forestalled urgent medical attention and the timely evidence collection required for cases to go to court. Hospital emergency departments were a central locus of reform efforts because first responders provided medical care and collected evidence when a woman reported shortly after the assault. If medical professionals took women’s reports and injuries more seriously, so the logic went, it might also be easier to prosecute their rapists.

Nurses helped to translate this broader political agenda into specific reforms in emergency medicine. In the 1970s and 1980s, nurse reformers sought to enlist their profession in service of rape prevention and institutional reform. They created some of the first protocols for post-rape care that centered the needs of adolescent and adult women and the trauma that they experienced. Nurses established model programs that fundamentally challenged medical practice and advanced reform in emergency medicine. Over time, they created the new Sexual Assault Nurse Examiner (SANE) role, established the professional specialty of forensic nursing, which was

recognized by the American Nurses Association (ANA) in 1995, and formed a new professional association, the International Association of Forensic Nurses (IAFN).

Even before nurses became recognized as forensic examiners, they participated in care for sexual assault survivors and helped to create and disseminate new protocols for hospital emergency departments.⁴ In the 1970s and early 1980s, evidence required by state forensic crime labs was not standardized within or between states, and hospitals had no consistent approach to rape.⁵ Gradually over time, state forensic crime labs (and later commercial entities) began to create forensic evidence collection kits—or “rape kits”—as prepackaged boxes of tools, forms, and envelopes that medical personnel could use to collect biological specimens (e.g., blood and semen) and physical debris from the victim’s body that might link the victim to the suspect or to the crime scene. In the case of the Vitullo Kit developed in the 1970s in Chicago (discussed in the introduction), the design of the kit was the direct result of collaboration between anti-rape activist Marty Goddard and police sergeant Louis Vitullo; it included forms and checklists created by Goddard and the anti-rape organization that she founded, the Citizens Committee for Victim Assistance, which prompted examiners to provide post-rape therapeutics at the same time that they collected evidence.⁶ However, crime lab kits (including the Vitullo Kit) lacked the kind of detailed instructions that a physician or nurse would need for how to administer a kit in the context of a head-to-toe physical (and, when indicated, pelvic) exam in a hospital emergency department.⁷ Very often emergency room physicians and residents collected evidence with little or no training.⁸ Just standardizing a rape kit did not address the need for training health care personnel in how to use it.

In addition, evidence involved much more than just the crime lab kits. Health care personnel asked survivors to share what happened and used the details of the assault to guide the exam, including the medical diagnosis of injury. They documented the survivor’s account of the assault and any clinical findings in patient medical records and, in some jurisdictions, on required police forms. These records and forms served as legal documents in court and had the potential to corroborate the survivor’s testimony. Therefore, an important objective of establishing specialized hospital-based programs was to train doctors and nurses in how to collect evidence and perform all aspects of the medical exam.

Through a historical case study of nurse activism in emergency medicine, in this chapter I examine how nurses sought rights to justice and rights to

health care for survivors of sexual assault, not through street-level activism, but rather through the enactment of new organizational routines in health care organizations. To do so, they mobilized law and rights to change the content and character of medical practice—or what I term *legal mobilization in medicine*. To illustrate, in concrete terms, how these processes of legal mobilization in medicine unfolded, I focus on three of their principal strategies to pursue reform; I discuss the first two strategies in this chapter and a third, engaging in clinical knowledge production informed by criminal law, in chapter 2. First, early nurse reformers collaborated with allied physicians and law enforcement personnel to promulgate new medical protocols and clinical guidelines to standardize, professionalize, and routinely administer a medical forensic exam whenever a patient-victim reported the crime to authorities shortly after the assault. Second, nurses expanded their professional jurisdiction to administer the exam independent of physicians as a key tactic to advance reform within emergency medicine. Their advocacy for new clinical guidelines and a new professional role reflected a new way of thinking in medicine: that specialized medical care and forensic evidence collection (including rape kits) should be linked in the patient-provider encounter. Through their advocacy, I illustrate how new clinical guidelines transformed the rape kit into a more comprehensive set of tools, medical routines, and new ways of thinking about sexual assault—or what I term the *rape kit assemblage*. In this way, the assemblage involved forensic evidence collection but importantly went beyond it to include medical diagnosis of injury and post-rape medical care.

However, in practice, their dual roles of investigator and health care provider has led SANE nurses to encounter what is referred to in medical ethics as the problem of dual obligations.⁹ This occurs when health care providers' obligations to a third party conflict with their obligations to a patient. In this case, nurses' early advocacy to act as examiners who simultaneously provide compassionate medical care to patients while collecting evidence for police and prosecutors led to divided loyalties, particularly when a patient did not wish to report the crime or when nurse examiners were called to testify against a patient in court. These conflicting obligations have threatened to undermine the initial reform agenda and have led nurses within and outside the field to question whether the forensic role has been able to preserve early reformers' initial focus on immediate crisis care and response.

In what follows, I first demonstrate how practitioner-activism in nursing in the United States emerged at the nexus of both feminist anti-rape and

women's health activism in the 1970s and 1980s. During this period, the poor treatment of women reporting rape captured the attention of anti-rape activists and feminist women's health activists alike. To demonstrate their shared concerns, I discuss the evolution of language in the early editions of the classic feminist women's health text *Our Bodies, Ourselves*, first published by the Boston Women's Health Book Collective (BWHBC) as "Women and Their Bodies: A Course" in 1970.¹⁰ I also draw upon letters that the BWHBC received during the 1970s and 1980s on the topic of medical examination following rape; these present early critiques of the new protocols and suggest they could recapitulate the harms of older practices in forensic medicine.¹¹ I then demonstrate how early nurse reformers in emergency medicine created new standards of care that sought to advance rights to health and rights to justice simultaneously. With these efforts, the nurses acted as key allies of activists. I then discuss controversies surrounding the new forensic nursing specialty that reveal how attempts to link therapeutics and evidence collection in post-rape medical care have threatened to undermine the initial reform agenda.

FEMINIST ANTI-RAPE AND FEMINIST WOMEN'S HEALTH ACTIVISM FOR REFORM IN THE 1970S

In the 1970s, the normalization of rape kits, and by extension the discipline of forensic medicine, as a tool of anti-rape activism was far from a foregone conclusion. Forensic exams were critiqued by many women's health activists as invasive and part of a humiliating and insensitive response by law enforcement and health care personnel that were even said to constitute a kind of "second rape." For example, the BWHBC used this terminology in two early editions of *Our Bodies, Ourselves*, first to describe the questioning by police that required women to recount and relive each moment of the assault in excruciating detail,¹² and subsequently to describe the literal, physical recapitulation of the act of the assault through the pelvic exam conducted as part of the forensic assessment.¹³

The 1976 edition provides a particularly clear example of the convergence of the feminist anti-rape and feminist women's health agendas around the poor treatment of women by formal institutions of law and medicine. The new chapter on rape in 1973 drew on resources provided by rape crisis centers around the country. In that same year, the Boston Area Rape

Crisis Center was founded.¹⁴ The subsequent chapter on rape in the 1976 edition was coauthored by the Boston and Washington, DC, rape crisis centers. To explain the need for reform, the chapter described a typical experience of a woman who decided to report the crime:

Usually a woman gets little to no support after she is raped. If she goes to the police, they may be unsympathetic or insulting. When she seeks medical treatment, especially in a city hospital, it will often be insensitive or inadequate. And the laws and courts may only further humiliate the rape victim by implying that it was somehow all her fault to begin with. In some places the picture is not so bleak, especially since the creation of many rape crisis centers, but we still have a long way to go. In addition to better treatment of rape victims, we want a society in which we can live our lives without fear or threat of attack.¹⁵

The authors called attention to the insensitive approach of first responders in hospitals and how laws and courts blamed the victim for the assault.

The 1976 edition also mentioned proposed solutions that were being introduced. With respect to courts, the authors stated that rape law reforms had started to be adopted in state penal codes; for example, documentation of medical evidence (e.g., bruises or semen) would no longer be required to corroborate the victim's testimony, and questions about prior sexual history would be prohibited.¹⁶ With respect to police, the authors noted that "police departments [were] creating rape units staffed by specially trained police (often women), who [were] more sensitive and supportive toward rape victims . . . [and who] sometimes work[ed] in connection with a local rape crisis center or women's group to ensure the best possible treatment for every rape victim."¹⁷ With respect to hospitals, the authors noted that "many rape groups and individual women have pressured hospitals to create twenty-four-hour rape units and to provide better, more sensitive medical care to rape victims."¹⁸ Over time, these types of reforms would become linked in what has become known as the Sexual Assault Response Team, or SART, model. This response team model formalized roles for police, prosecutors, health care providers, and staff and volunteers at rape crisis centers in attending to the needs of victims. The idea was to coordinate the work of first responders in attending to rape victims, improve the quality of care provided, and increase the number of cases that would proceed to court.

Relevant to the present analysis, *Our Bodies, Ourselves* in 1976 also identified the development of new protocols to guide first responders as a

promising strategy of reform: “Fortunately, new rape protocols and specially trained rape staffs [sic] are becoming more common; and as more rape crisis centers work with police rape units, police should become more sensitive to rape victims.”¹⁹ However, one reviewer of the chapter in its draft form, a male army physician, took issue with the quick endorsement of new protocols as necessarily a vehicle of reform. In his correspondence with the authors, he explained,

I disagree strongly with “Fortunately . . . new rape protocols . . . are becoming more common.” Perhaps the protocols are, but the medico-legal brutalization they prescribe in the search for evidence is not being significantly modified from the old. It is only mounted in a somewhat more humane setting. This was my impression from the two discussions on “rape centers” (in Miami and Charleston) at the May ACOG [American College of Obstetricians and Gynecologists] in Boston. The impression is supported by the enclosed American College of Obstetricians and Gynecologists Technical Bulletin of 1970, “Suspected Rape,” and the May 1975 TB 293 for the Army. Both of these publications are only advisory, but have wide influence. Unless the new rape statutes (which I have not seen in detail) are altering the evidence requirements, not just the events in the courtroom, the medical exam remains “the second rape.”²⁰

The American College of Obstetricians and Gynecologists (ACOG) Technical Bulletin of 1970 prescribed a medical examination to document injuries and collect biological specimens that could indicate presence of sperm or the suspect’s blood type as inclusion/exclusion criteria. The bulletin also prescribed specialized medical care: high doses of estrogen to prevent pregnancy if a woman reported within five days of the assault, and administration of penicillin to presumptively treat what was then referred to as venereal disease (i.e., sexually transmitted diseases, or STDs), or what we would today refer to as sexually transmitted infections, or STIs.²¹

What the 1970 ACOG Technical Bulletin did *not* do was coach the physician examiner on attending to the trauma and need for crisis support of adult victims. Although the duty to “protect against disease, pregnancy and psychic trauma” was listed as one of the core concerns of the protocol, it only discussed the need to minimize trauma and provide emotional support for children and their families—not for the adolescent or adult victim. While it did connect evidence collection and immediate medical care, it maintained a distant tone—one of protecting the doctor and patient in the event of legal action.

This is where the work of early nurse reformers was pivotal in contributing to a new approach to rape—one that expected first responders to provide compassionate care and be attentive not only to the physical impacts of rape, but also to the emotional impacts. Over time, nurses also advocated for their own role, as nurses and women, to care for patients, the vast majority of whom were assumed to be women, and conduct all parts of the forensic exam independent of physicians, who at that time were almost always men.

ORIGINS OF FORENSIC NURSING IN POST-RAPE CARE

One of the leading figures in this sea change to focus on the trauma and emotional impact of rape was Ann Wolbert Burgess, a professor in the School of Nursing at Boston College. Around the same time that the BWHBC published their first feminist health text, Burgess had founded one of the first, hospital-based rape crisis counseling programs at Boston City Hospital; she did this in collaboration with sociologist Lynda Lytle Holmstrom. In addition to police rape units, specially trained rape staff, and new protocols, the 1976 edition of *Our Bodies, Ourselves* recommended Burgess and Holmstrom's 1974 book, *Rape: Victims of Crisis*, as a resource for information on crisis counseling and understanding the emotional impact of rape on victims.

Burgess and Holmstrom had founded the rape crisis counseling program at Boston City Hospital in 1971. Together, they offered twenty-four-hour crisis counseling to all rape victims seen at the hospital and collected data on the trauma experienced by rape victims. Based on their research, Burgess and Holmstrom created the landmark nursing diagnosis “Rape Trauma Syndrome,” first published in 1974 in the *American Journal of Psychiatry*.²² Through their articulation of the symptoms associated with Rape Trauma Syndrome, they used their clinical data to refute false assumptions about how a survivor would (or should) behave after an assault:

A prevailing myth about rape victims is that they are hysterical and tearful following a rape. We did not find this to be necessarily true in our victim sample. To the contrary, victims described and indicated to us an extremely wide range of emotions in the immediate hours following the rape. The physical and emotional impact of the incident may be so intense that the victim feels shock and disbelief.²³

They noted that some survivors expressed feelings of anger, fear, or anxiety, but others did not express their feelings overtly; instead their feelings “were masked or hidden” such that they appeared calm or composed.²⁴ Anti-rape activists then (and now) have emphasized the wide range of emotional reactions that survivors can experience in order to challenge prejudice and bias stemming from false assumptions about how a “credible” rape victim should behave; however, police assessments of credibility based on such myths continue to impact criminal case processing decisions today.²⁵

Ann Wolbert Burgess has been named a Living Legend by the ANA and a forensic nursing pioneer by the IAFN, and she became a prominent figure in the new specialty of forensic nursing. After her landmark research with Holmstrom, Burgess later went on to train nurses in medical forensic examination of rape victims. As her biography suggests, this new specialty arose from the earliest efforts of nurse reformers in the 1970s to humanize the health care and law enforcement response to survivors of sexual violence. For many nurses, their role as patient advocates preceded their role as independent nurse examiners.

In her published writing, Burgess was quick to note that the work of nurses in this area was in fact largely prompted by feminist anti-rape activists who had founded rape crisis centers and were supporting women who reported to authorities. For example, in one of Burgess’s early publications, prominent anti-rape activist Mary Ann Lagen wrote a chapter describing the history of the anti-rape movement.²⁶ Their collaboration illustrates the important bridging work that nurses provided in connecting the broader anti-rape movement to specific reforms in emergency medicine. In addition, Burgess and her coauthors noted in their 2004 retrospective in the *American Journal of Nursing* on the history of the new forensic nursing specialty that many who first entered the field in the 1970s and 1980s had volunteered at newly formed rape crisis centers, and their work on rape became a kind of recognized expertise in the 1980s.²⁷ Underlying these points of overlap was the prevailing sensibility associated with the feminist women’s health movement that nurses, as women, were best positioned to serve women patients and provide compassionate care. In this way, there was not a bright line between the reform agendas of lay anti-rape activists, lay feminist women’s health activists, and some of the earliest nurse reformers in the 1970s and 1980s.

One of the first guidelines on forensic examination that emphasized attention to trauma and the needs of adolescent and adult patients was developed by forensic nursing leader Linda Ledray. Like Burgess, Ledray

began by establishing a crisis counseling program, in her case in Minneapolis. She initially founded the program, the Sexual Assault Resource Service, as a research-demonstration treatment program with a grant from the then newly created Center for the Prevention and Control of Rape at the National Institute of Mental Health in 1977.²⁸ In 1986, Ledray began advocating for nurses to act as forensic examiners independent of physicians in her jurisdiction.²⁹ This new role was what was eventually referred to as SANE or Sexual Assault Nurse Clinician. Ledray would later receive US National Institute of Justice funding to create the first nationally recognized SANE guidelines.³⁰ These guidelines preceded the first national and international guidelines in 2004 and 2003, respectively.³¹ The SANE guidelines were also included in full as an appendix to the first American College of Emergency Physicians guidelines in 1999.³² Because of their precedent-setting nature and novel attention to trauma during forensic examination, Ledray's 1999 SANE guidelines went on to inform the drafting of subsequent World Health Organization and United Nations High Commissioner for Refugees guidelines on post-rape care, which I discuss in chapter 3.

Although Burgess and Ledray began their work in the field through research on trauma before later becoming nurse examiners, other early nurse reformers began their work in the field as nurse examiners from the start. For example, in three early programs, nurses advocated for their role, as women, to treat and examine rape victims, as women. Two of these early programs, in Amarillo, Texas, and Tampa, Florida, were established in collaboration with rape crisis centers, while one in Memphis, Tennessee, began as part of a city-run rape crisis center.³³ Over time, these types of programs began to spread through informal networks as nurses heard about new hospital-based, nurse-led programs from their friends and established similar programs at their places of work.³⁴

But other programs, like the multidisciplinary SART model developed in San Luis Obispo, California, conceptualized nurses as independent examiners who worked closely with police, prosecutors, and rape crisis center victim advocates, as indicated by the hyphenated "SANE-SART" terminology.³⁵ The SANE-SART model became the dominant approach, separating the functions of nurses as independent examiners from the crisis support, long-term counseling, and victim advocacy work of rape crisis centers. The model in San Luis Obispo was founded by physician Laura Slaughter, the only female physician in her catchment area when she began practicing in the area in 1978. As a female physician, Slaughter became an early ally of nurses

seeking to act as independent forensic examiners. She helped create one of the nation's leading training programs for nurses at the SART Institute in Santa Cruz, California; between 1986 and 1996, she helped nurses learn the skills needed to perform all the tasks associated with examination.³⁶ While the role of nurses initially varied by jurisdiction, over time the concept of the multisectoral response team model with separate roles for forensic examiners, including nurse examiners, and rape victim advocates became stabilized as best practice.

A turning point for rape kit procedures came in the 1990s when DNA testing was increasingly adopted in US policing as a means of forensic identification.³⁷ This new tool fundamentally altered nursing protocols around rape. As one nurse put it, the “CSI [crime scene investigation] mode” began to take over³⁸—namely, the focus on forensic evidence collection and, with it, the hope that ever finer-grained techniques could pick up subtle forms of injury on women's bodies, especially ano-genital injuries; together with DNA testing, it was anticipated that examiners would then be able to prove rape had occurred based on clinical findings. The increasing focus on evidence collection threatened to undermine nurses' initial focus on compassionate care and response. Over time, the protocols themselves came to embody these tensions so that medical professionals were expected, on the one hand, to provide compassionate and therapeutic care and, on the other, to collect unbiased and objective evidence that would hold up in court.³⁹ Convicting a rapist and helping the person raped were presented as compatible goals. Yet in practice they could conflict. This too became evident in the late 1990s when a sufficient number of hospitals accepted funding to pay nurse examiners through law enforcement budgets, prompting some of the early nurse reformers to leave the field.⁴⁰ They rightly saw their autonomy as healers compromised when their employment depended on meeting police objectives to investigate and prosecute crimes.

Nevertheless, the forensic nursing specialty offered nurses the opportunity to expand their professional jurisdiction within US emergency medicine. In the next section, I discuss in more detail how nurses attempted to align the institutional logics of clinical medicine and criminal law to expand their own professional role within emergency medicine and, thereby, act as forensic examiners. Their efforts to occupy a liminal zone between clinical medicine and criminal law ultimately led to role conflicts and the problem of dual obligations, which has threatened to undermine their initial reform agenda.

EXPANDING NURSES' PROFESSIONAL JURISDICTION THROUGH THE FORENSIC NURSING ROLE

In the 1970s, the “settlement by subordination” of nurses to doctors in American medicine had a distinctly gendered component to it.⁴¹ Requiring predominantly female victims who reported rape to undergo invasive, potentially traumatizing exams by physicians effectively meant requiring a woman who had just survived an assault, most likely perpetrated by a man, to undergo an exam by another man. As noted above, for many nurse reformers in the 1970s and 1980s, advocating for a nurse to do the exam was synonymous with advocating for a woman to do the exam. For example, when Edith Rust established the Amarillo SANE program in 1979, she refused to allow men to enter the examination room unless a victim needed treatment that only a (male) physician could provide.⁴²

While advocating for the rights of women as patients, early nurse reformers simultaneously advocated for the elevation of their status as women in nursing relative to predominately male doctors in the professional hierarchy of American medicine. Frances, a nurse with over twenty-five years of experience in the field, emphasized that in the 1970s nurses only did “TPR and BP,” which was shorthand for temperature, pulse, respirations and blood pressure.⁴³ However, as SANE forerunner and professor of nursing Barbara Moynihan underlined in 1981, nurses began to assume “a central supportive role in the treatment of a sexual assault victim . . . to facilitate the victim’s recovery by influencing the response of other systems to the victim.”⁴⁴ Similar to the early programs established by Burgess and Ledray, Moynihan described the work of nurses to provide crisis counseling, patient advocacy, and case management to women who reported the crime to authorities.⁴⁵ Moynihan would go on to coedit one of the first forensic nursing textbooks; it included a foreword by then senator and future US president Joseph R. Biden, Jr., recognizing the role of nurses in professionalizing the forensic examiner role, a key focus of the 1994 Violence Against Women Act that he had championed.⁴⁶

Although nurses often conducted much of the exam as a result of routine delegation of tasks by doctors to subordinates, their role was not recognized as expertise and they could not testify in court.⁴⁷ In the late 1970s and early 1980s, nurse reformers began to seek greater autonomy and a recognized role in evidence collection in order to have a platform of credibility, expertise, and authority from which to advocate for institutional reform and assist with case prosecution. Over time, nurses leveraged their professional credentialing

and commitment to anti-rape advocacy to examine patients as autonomous nurse examiners who could testify to their work in court; in the process, they created the new forensic nursing specialty through administration of the exam.

The context in which these early reforms occurred created the conditions in which an invasive exam associated with law enforcement could be seen to be more humane when administered by a new kind of examiner: a woman and a nurse. However, early nurse reformers faced opposition to this new role from many doctors, prosecutors, and sometimes other nurses. Some aspects of the exam fit within traditional nursing practice, but others required new tasks, training, and responsibilities. In some parts of the exam, the examiner rendered a clinical judgment and interpreted the presence or absence of physical injury, which I discuss in greater detail in chapter 2. In other parts of the exam, the examiner acted as a technician by collecting specimens in anticipation of analysis and interpretation by others; this included the collection of semen, saliva, and blood for later analysis by forensic crime labs. Controversies about what did or did not fall within the scope of nursing practice animated the new field early on, especially debates about whether registered nurses without advanced practice credentials could conduct a pelvic exam for the purposes of injury detection as distinct from diagnosis of disease.⁴⁸

Their strategies for overcoming resistance varied by jurisdiction. Many nurses formed alliances with victim advocates at rape crisis centers, sympathetic physicians, and/or law enforcement officers who were under increasing public pressure to increase prosecution rates. The burgeoning Nurse Practitioner movement that began in the 1960s was an important historical antecedent because, nearly a decade on, nurses with advanced practice training were able to extend their work in women's health to include post-rape medical care.⁴⁹ As discussed above, in California a key ally was a female physician, Laura Slaughter, who supported the role of nurses as examiners and assisted with trainings through the SART Institute in Santa Cruz, California; the institute had broad impacts on the field through its national reach. She spoke to other physicians, encouraging them to support nurses in performing the exam. In other cases, doctors were reluctant to cede their authority, and prosecutors provided important leverage for nurses to circumvent traditional hierarchies in medicine.⁵⁰ Once nurses started to become aware of successful nurse examiner programs in different parts of the country, they shared available models through their professional networks, and these provided precedents for the viability of the new role.⁵¹

The extensive overlap between the development of the forensic nursing specialty on the one hand and the professionalization and standardization of the post-rape exam on the other suggests that, in practice, the forensic nursing role was developed *through* administration of the post-rape exam: What became the forensic nursing specialty grew out of the SANE role. In this way, forging a novel, hybrid professional jurisdiction was tied to enactment of a novel, hybrid form of medical action that tightly linked rights to health care and rights to justice for patient-victims. In the next section, I describe in greater detail how criminal law became imbricated in clinical SANE nursing practice through administration of the forensic exam.

MOBILIZING CRIMINAL LAW IN CLINICAL NURSING DURING THE 1980S AND 1990S

Much like nurses sought to occupy a liminal zone between clinical medicine and criminal law in their work as forensic examiners, they also sought to bridge evidentiary and therapeutic logics in routine administration of the post-rape exam. Practitioner-activists in nursing invoked the evidentiary requirements and moral authority of criminal law in order to advocate for the exam as necessary to facilitate prosecution—or what I characterize as their advocacy for routine administration of the exam as a form of procedural justice for patient-victims. Three examples illustrate the imbrication of criminal law within emergency nursing practice to advance institutional reform and its contested status in forensic examination: taking a patient history informed by law enforcement priorities, integrating medical care and evidence collection in new clinical guidelines, and, as I discuss in chapter 2, engaging in knowledge production about the likelihood of finding clinical evidence during the exam.

Taking a patient history informed by law enforcement priorities

Although nurse examiners provided acute medical care to meet the immediate health care needs of patients, the desire to facilitate prosecution trained attention on forensic evidence collection. The possibility that professionalization of the examiner role could lead to better evidence collection was accompanied in the 1980s and 1990s by an emphasis on more routine incorporation of crime scene investigation methods. Nurses borrowed knowledge

from law enforcement and criminal profilers to inform the patient history that guided the subsequent examination.

For example, as noted above, the Santa Cruz SART Institute trained nurses in the new SANE role and the multidisciplinary SART model in the late 1980s and 1990s. During the years of its operation, presentations were given by representatives of collaborating disciplines, including physicians like Laura Slaughter from the nearby San Luis Obispo SART, rape crisis center staff, police, prosecutors, and a state criminal profiler, to train nurses and their SART partners on the impacts of rape on patient-victims, evidentiary requirements of criminal courts, and what was known about perpetrators. As Jean, a nurse who had been practicing in the field for over twenty-five years, explained,

[The Santa Cruz SART Institute] teamed with [a] state [criminal] profiler. . . . A whole afternoon was presented . . . on sexual assault, the rapist typology. . . . If you don't know what happens in sexual assault, you're not going to be able to ask the person the right questions. . . . So our interviewer history included a lot of information about the sexual assault itself: How did the person gain control over them? What was the setting? Were they in a car, on the ground, in their own home, in bed, on the carpet? . . . What sexual contact was made? What areas of the body were touched? Whether the assailant had asked the victim to do certain things? . . . What had the assailant said to the victim? And we learned from [the state criminal profiler] all of those things were important and learned what to ask about.⁵²

The dual purpose of the classic patient history in the context of the forensic exam is evident in this nurse's explanation of the criminal profiler's role in training nurse examiners to ask questions informed by law enforcement. The patient-victim's "history" provides the context in which the sexual assault occurred. The nurse uses these details to guide the subsequent exam. The patient's account thus guides treatment and assists in criminal investigation, potentially serving as a formal victim statement in court.

*Integrating medical care and evidence collection
in new clinical guidelines*

In the 1970s and 1980s, physicians often did not receive formal training on how to conduct exams; they delegated them to residents in emergency rooms, wrote their patient charts in illegible handwriting (before electronic records), and generally resisted missing work and foregoing income to testify in court.

Their lack of training and resistance to the role were thought to compromise the quality of the evidence and therefore the ability of patients to seek prosecution. As Kay, a nurse who had been practicing in the field for over thirty years, explained,

In terms of standard and protocol, . . . the main reason for establishing the SANE programs [was] so that you would train nurses, or in some cases forensic examiners, to all know how to collect [the rape kit evidence]. At that time [in the 1970s], . . . it was just the GYN resident on call [who did the exam] . . . there was no protocol. They just took some swabs and they actually looked at it under the microscope. We often looked at it under the microscope right then and there to see if there were any sperm. . . . Again, this is before DNA. All they had was the blood typing at that particular time. So first, that was one of the important things to prove. Some people still do it.⁵³

Prior to the availability of forensic DNA profiling in the 1980s and its growing use by US law enforcement agencies in the 1990s, forensic identification techniques relied on recovered suspect hair and blood samples to establish inclusion/exclusion criteria based on more rudimentary techniques such as hair analysis and blood typing. The lack of standardization of procedures, combined with their administration by inexperienced examiners, potentially compromised the quality of evidence collected, and ultimately the chances that it could aid case prosecution.

In addition, comprehensive standards on post-rape medical care had not yet been established. Early nurse reformers identified health-related consequences of rape, especially risk of pregnancy and STIs (then venereal disease, or STDs), as among the chief concerns that patients reported when seeking care. Indeed, some of the earliest medical guidelines that addressed rape concerned treatment of STDs.⁵⁴ As a result, many early protocols published or circulated by nurses in the 1980s and 1990s recommended the standardization and routine administration of prophylactic treatment of bacterial STDs and, more controversially, routine pregnancy testing and, if negative, access to emergency contraception. They also emphasized the importance of making referrals to counseling and crisis support.

Further, early nurse reformers published descriptions of their local protocols in nursing journals and sometimes included detailed procedures and sample forms for others to emulate at their places of work.⁵⁵ For example, Linda Ledray published the protocol in use at the Sexual Assault Resource Service in Minneapolis in its entirety in the *Journal of Emergency Nursing*

TABLE 1. Brief summary of the adolescent/adult protocol in use at the Sexual Assault Resource Service in Minneapolis and published in the *Journal of Emergency Nursing* in 1995

Protocol components	Duties of the Sexual Assault Nurse Clinician
Obtain consent for the evidentiary exam	Obtain patient's written consent for the evidentiary exam. Emphasize that this is only an evidentiary exam; it is not a routine physical exam and should not be considered a replacement for routine physical diagnosis and/or care.
Initial interview with patient-victim	Complete an initial interview to obtain information needed to complete the exam and provide initial care (including general medical information and a detailed history of the assault).
Specialized medical care	If female patient is past menarche, test for pregnancy. If test is negative, offer emergency contraception (Ovral) and administer it with patient consent. Prophylactically treat gonorrhea, chlamydia, and syphilis with antibiotics. Provide initial crisis intervention and make arrangements for ongoing emotional support.
Forensic evidence collection	Provide emotional support to the victim during the exam. Complete the evidentiary exam (including the pelvic exam): <ul style="list-style-type: none"> • Observe body for injuries. • With patient's written consent, take photographs of injuries. • Collect lab specimens using sexual assault evidence collection kit and complete Sexual Assault Nurse Clinical Exam Report. • Collect foreign matter from the body (including debris, fibers, hair, semen, and/or blood on victim's body). • Conduct pelvic exam if vaginal area involved in the assault (including checking for signs of internal trauma, such as cuts, tears, redness, soreness, bruising or bleeding, and swabbing vaginal walls and cervix for sperm). • Conduct rectal exam if rectum involved in the assault (including swabbing for sperm). • Draw blood from patient for DNA testing (for patient referent) and blood alcohol level testing. • Collect a urine sample for drug screen if drugs were involved.

SOURCE: Ledray, "Sexual Assault Evidentiary Exam."

as a model for others to adopt.⁵⁶ It outlined the responsibilities of what she referred to as the Sexual Assault Nurse Clinician in the hospital emergency department (see table 1 for a brief summary of the published protocol). Over time, such medical-legal practices became defined through the anticipated patient population and the focus on linking violence and health through the psychological trauma and physical harm that may result.

Building on her early work to standardize procedures, as noted above, Linda Ledray received US National Institute of Justice funding to create the first nationally recognized SANE guidelines;⁵⁷ these were endorsed by the first American College of Emergency Physicians (ACEP) guidelines, also published in 1999.⁵⁸ The SANE guidelines became a model protocol that detailed not only step-by-step instructions for the exam itself, but also how to set up a specialized nurse examiner program. Importantly, the 1999 SANE guidelines were based on a survey of fifty-nine of eighty-six known SANE programs nationwide, demonstrating the influence of nurse activism on subsequent landmark guidelines that drew on the SANE guidelines as a model.

CONTROVERSIES SURROUNDING THE FORENSIC NURSING ROLE

The founding of the IAFN in 1992 marked a watershed moment in the development of the field. Although it was convened as a gathering of SANE nurses acting as autonomous nurse examiners, those present chose to name the professional association with the terminology of *forensic nursing* at the suggestion of Virginia Lynch, a nurse death-investigator and the oft-named “grandmother of forensic nursing.” The meeting was a gathering of seventy-two nurses from twenty-six SANE programs throughout the country,⁵⁹ but the more focused terminology that would have better represented the members present—SANE or Sexual Assault Nurse Clinician—was folded into the language of forensic nursing, and the mission of the new organization reflected this professional expansion project.

As the first president of the IAFN and a member of the American Academy of Forensic Sciences, Lynch led the organization to align more explicitly with law enforcement as an aspiring forensic science discipline. This deeper integration is captured in the symbol that she created to represent the new forensic nursing role in her master’s thesis and that was reprinted in several early textbooks: It includes the scales of justice, the caduceus, and the eternal flame of nursing.⁶⁰ After the founding of the IAFN, Lynch edited three special issues in the 1990s on the new forensic nursing role in the *Journal of Psychosocial Nursing and Mental Health Services*.⁶¹ Yet the uptake of the more expansive terminology far outpaced the uptake of forensic nursing roles outside of the administration of the post-rape exam.

This agenda to establish a new forensic nursing specialty did not proceed without controversy regarding the appropriate balance between caregiving, understood to be central to the traditional patient advocacy focus of the nursing profession, and forensic evidence collection, with its associated demands for nurses to act as objective, unbiased examiners who were sometimes even called to testify against victims in court. Even as nurses successfully helped to advocate for new protocols bridging clinical medicine and criminal law, tensions between caregiving and investigative work grew more pronounced.

Nurses have responded to these tensions in a variety of ways. Although one of the oldest programs in Minneapolis initially envisioned an ongoing patient-victim advocate role for nurses, accusation of pro-victim bias by defense attorneys could undermine the perceived objectivity of nurse examiners.⁶² In contrast, the SART model adopted in California, and later endorsed as best practice in national guidelines, specified three distinct roles for nurse examiners, rape victim advocates at rape crisis centers, and police. As Jean explained,

Some of the roadblocks in those early days were misunderstanding, lack of trust between the three disciplines—nursing, law enforcement, and advocacy. . . . So we worked out those conflicts with lots and lots of cross-training. . . . Cops want to enhance their investigation. Advocates want to make sure the victim is not re-victimized, and to support them. And nurses are really neutral in that. So, our role is to be compassionate, do a very thorough physical assessment, reassure the patient, and answer any health questions that the patient had. And we saw the patient one time. You know, they came in for their exam. We did not meet with them again. In other programs, specifically the Minneapolis program, which started in the '70s, so it was really older, but they also had nurses who would then follow up with the patient and in a way become the patient's counselor. And the patients would come back to see them, you know, maybe weekly or for a period of time afterward. And because we were multidisciplinary, it was really clear that the nurses had to be unbiased. And so, long-term counseling or short-term crisis intervention was provided by the rape crisis agencies. So, they really, you know, took on that specific role. . . . If you testify in court and you're obviously biased toward one side or the other, the jury will just discard that information. So, we were there to collect the best forensic evidence and, you know, the chips had to fall where they may, as they say. You know, maybe the forensic evidence would support the account of the victim. Maybe it'd be completely inconclusive. Maybe it would be—maybe it would support the account of the suspect. I think that's really hard for a lot of nurses to understand. Even today, we go back and forth about that.⁶³

As Jean suggests, some nurses have viewed the examiner role as inconsistent with the traditional caregiving role predicated on serving as a patient advocate. Others argued that nurses are able to effectively combine compassionate care while serving as objective examiners.

Some nurses have responded to this critique by resisting the reduction of the nurse examiner role to simply evidence collection; they argued instead that not only was evidence collection compatible with compassionate and supportive care, the collection itself could be understood as therapeutic in the context of the post-rape exam. Mary, a nurse with over thirty years of experience in the field, explained,

[When] people don't understand what their roles are within the team, [then] you start to see the team break down. And, in particular, when prosecution tells the nurse that you're an evidence collector. Excuse me? I am a registered nurse who is evaluating a patient. And evidence collection may be a therapy I choose to use with their permission. Just as giving them a tetanus shot, if they have injury, as a therapy I choose to use. So I don't see evidence collection as anything except a therapy that I choose to use, based on the diagnosis that I've given them. And, I hope that makes sense. But it totally reframes it. And, I'm going to tell you, that if you talk to fifty nurses, there won't be but one or two who understand that. . . . [Published studies] say that if evidence is successfully collected, and adjudication occurs, that that patient's mental health outcomes are better than the person who doesn't have justice. So therefore, that one psychomotor collection—knowing how to do that without injuring the patient, without creating injury, with doing all that stuff—that one psychomotor intervention based on the diagnosis of Rape Trauma Syndrome has the potential to change the outcome of this person's mental health. And you're telling me it's not nursing? . . . And, I let that patient direct it. It's not for me to direct. It is patient-centered care. My job is to be a conduit of information, and then to create empowerment through that information, and allow that patient to make an informed decision, to accept or decline the services. It is truly a nursing intervention.⁶⁴

As Mary describes, evidence collection has been characterized as therapeutic by some nurses on the assumption that collecting evidence with the permission of the patient may have the potential to improve mental health outcomes if the case goes to court. The association of forensic evidence collection with later case adjudication may indeed be perceived as mitigating the harmful psychological impacts of sexual assault. However, even proponents of the SANE role and members of the IAFN have referred to forensic nurse examiners as evidence collectors, and, to both insiders and outsiders, they often

appear to have become focused on the law enforcement function over the therapeutic function in nursing care.

These tensions persist in present-day practice. At the twentieth anniversary meeting of the IAFN that I attended in 2012, the organizers had assembled an auction of commemorative objects to celebrate the founding of the organization and the birth of the specialty. One of the items was a large print of a nurse wearing traditional nurse garb on one half of her body and traditional police officer garb on the other; it was the cover art for the September 1995 special issue that Lynch edited (see figure 8). As I perused the auction items with a nurse I had met earlier in the day, I commented on the striking artwork. To my surprise, she replied emphatically under her breath, “I hate that image.” Moved by her quick rejection of the symbolic linking of nursing and policing, I asked her why. She clarified, again in an emphatic tone, “We’re not cops!”⁶⁵ This exchange signals the distinctions that some nurse examiners draw between their work and the tasks of law enforcement, the latter of which they perceive as focused on “getting the bad guy” rather than meeting the needs of patients. This is especially true when victims choose not to report the crime or need compassionate and respectful care more immediately than an arrest. In an effort to emphasize more of a health care role than an investigatory role, the 2017 *Scope and Standards of Practice* for forensic nursing, published jointly by the ANA and IAFN, named “emotional and social support required during a post-trauma evaluation and examination” as essential components of SANE practice.⁶⁶ Similarly, the 2016 *SANE Program Development and Operation Guide* used the terminology of “patient-centered and trauma-informed care” to describe the SANE approach to administration of the exam.⁶⁷

The specialty is still relatively young and not fully institutionalized despite its endorsement by the ANA in 1995 and the publication of three editions of the *Scope and Standards of Practice* for forensic nursing in 1997, 2009, and 2017.⁶⁸ In their 2004 review of the new specialty for the *American Journal of Nursing*, Ann Wolbert Burgess and her colleagues noted that the specialty was predominately made up of SANEs despite the broad umbrella term that nurse examiners adopted.⁶⁹ Nevertheless, as physician and early SANE ally Laura Slaughter noted in a 2014 emergency medicine reference book, the sexual assault forensic examiner role has been subsumed by nurses who dominate the work of the exam and the care of patient-victims.⁷⁰

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FIGURE 8. Illustration of a nurse wearing half nurse garb and half police garb. *Journal of Psychosocial Nursing and Mental Health Services*, September 1995. Illustrated by Barbara Kiwak. Reprinted with permission from SLACK Incorporated.

THE IMBRICATION OF CRIMINAL LAW IN CLINICAL MEDICINE

Early nurse reformers' advocacy to advance rights to health and rights to justice for survivors of sexual violence changed the content and character of medical practice in hospital emergency departments through a new medical-legal standard of post-rape care and a new forensic nurse examiner role. At times, the institutional logics of verification in criminal law have collided and sat uneasily with the institutional logics of therapeutic treatment in clinical medicine, as a "competing institutions" framework in socio-legal

studies would predict.⁷¹ Even as early nurse reformers started to recognize, role conflict emerged because of tensions between caregiving and investigative work.

Studies of contemporary forensic nursing practice, and the work of rape crisis center staff who interact with forensic nurses, suggest that these dynamics may well have altered the patient-provider encounter. As one of the most explicit and disturbing critiques of a contemporary forensic nurse examiner program in Baltimore suggests, some nurses appear to have shifted their attention to evidence collection, DNA recovery, and evaluating clinical findings to judge the veracity of a victim's claim at the expense of compassionate care.⁷² Indeed, from the perspective of many rape crisis center staff who currently participate in multisectoral response teams, all too often the exam in effect becomes a kind of "lie detector" to assess victim credibility.⁷³

In the next chapter, I examine the politics of knowledge in post-rape care through two case studies: (1) the work of nurses to document physical, bodily injury since the 1970s, and (2) four initiatives to clear rape kit backlogs since the 2000s. Nurses engaged in clinical knowledge production about the likelihood of detecting physical injury after sexual assault—a third strategy of legal mobilization in medicine. In parallel, advocacy to clear rape kit backlogs led to research on suspect DNA recovery in backlogged kits, including some of the best available estimates of the likelihood that rape kits will produce suspect DNA profiles. These case studies reveal that rape kits and injury detection techniques often do not produce conclusive evidence or fail to produce any evidence at all—what I refer to as the knowledge problem of rape kits and injury detection techniques. I describe how the limitations of evidence became more apparent as the rape kit assemblage became more widely institutionalized in the United States and examiners discovered that evidence is often ambiguous or simply absent.

The Knowledge Problem of “Rape Kits” and Injury Detection Techniques

BEGINNING IN THE 1970s, nurses played a key role in advocating for routine collection of evidence in hospital emergency departments, hoping to pave the way for more just outcomes in criminal proceedings. Yet one of my central findings is that rape kits and techniques of injury detection often do not produce conclusive evidence or fail to record any evidence at all. I call this the “knowledge problem” of rape kits and injury detection techniques. To explain what I mean, in this chapter I examine two areas of research: (1) research on clinical injury detection conducted by nurses since the 1970s, and (2) research on suspect DNA recovered from clearing rape kit backlogs since the 2000s. I illustrate how these areas of research suggest that evidence gathered through rape kits and injury detection techniques can be inconclusive or simply absent. Absent or inconclusive evidence, in turn, can have an unintended discrediting effect on survivors—what I refer to as the probative paradox. What I am sharing here is widely known among practitioners in the field but is not widely discussed in popular discourse. I hope to counter the unintended discrediting effect on survivors by explaining why evidence can be inconclusive or simply absent and why it does not mean that sexual assault did not happen.

In the first part of the chapter, I discuss clinical indicators of physical, bodily injury. Nurses conducted research on injury among the patients they treated in model Sexual Assault Nurse Examiner, or SANE, programs, and they later recruited volunteer research subjects in order to compare their clinical findings with injuries recorded after consensual sex. However, over time, nurses discovered that their research agenda was based on what they later came to understand was a flawed premise: that the problem of proving lack of consent could be solved with evidence from the body. There are many circumstances in which an examiner would not expect to find evidence of

injury—for example, if the assault involved threat, rather than use, of force. Severe bodily injury is uncommon, and more subtle forms of ano-genital injury are often inconclusive: Nonconsensual sex *may not* result in ano-genital injury and, conversely, consensual sex *can* involve ano-genital injury, such that the presence or absence of ano-genital injury often cannot answer the key legal question of consent.

I would like to underscore here that since nurses were influenced by the US feminist anti-rape and women's health movements of the 1970s, they assumed that the vast majority of victims were women raped by men; they therefore focused their work predominantly on identifying clinical evidence of penile-vaginal penetration.¹ While some nurses did attend to oral and anal rape among female victims or documented injury among male victims, the overwhelming focus of the field was on women raped by men, and specifically on injuries resulting from penile-vaginal penetration. Relatedly, the focus on ano-genital injury carried within it historical residues of the notorious and now debunked myth that the hymen can prove virginity.² In this way, nurses' theories to explain the presence or absence of ano-genital injury during forensic examination were directly tied to assumptions about heterosexual sex and sexuality.

As clinical studies with volunteer research subjects increasingly demonstrated that ano-genital injuries could occur after consensual sex, and as these study results became more widely available in published journal articles, defense attorneys cited them to call into question the assumption that injury could prove lack of consent. For example, as I discuss in further detail below, in 2000 a lower criminal court opinion in Virginia challenged the evidence base on which a SANE nurse had interpreted the meaning of injuries that she had documented. In this way, controversies surrounding interpretation of clinical findings were, in part, struggles over how to make sexual violence legible through biomedical knowledge production.

In the second part of the chapter, I discuss rape kits and suspect DNA recovery. In the 1990s, the growing use of forensic DNA identification techniques by law enforcement agencies shifted the field of sexual violence response toward DNA recovery. While nurses had learned through experience that the likelihood of collecting biological specimens, such as blood and semen, dropped significantly twenty-four to forty-eight hours after the assault, the likelihood of recovering suspect DNA was not yet known. In the 2000s, advocacy to end rape kit backlogs and thereby test all rape kits in police custody led to research on whether the kits could produce DNA

profiles that might reveal or confirm the suspect's identity and potentially link the suspect to other crimes. To my knowledge, nurse examiners have not been involved in the research on rape kit backlogs. However, the results of these studies suggest the limitations of rape kits (backlogged and current) in producing probative DNA evidence, which also has the potential to undermine nurses' initial reform agenda.

As I discuss in more detail below, I reviewed research studies in three of the first jurisdictions that received federal funding to clear rape kit backlogs (Los Angeles, Houston, and Detroit) as well as the aggregated outcomes of thirty-two jurisdictions across twenty states funded by the Manhattan District Attorney's Office. This research on untested kits suggests that between one-third to just under half have been found to generate a suspect DNA profile that meets Federal Bureau of Investigation (FBI) quality requirements and eligibility criteria to be uploaded to the Combined DNA Index System, or CODIS. CODIS is the federal database that contains DNA from those convicted of felony crimes and, in some jurisdictions, DNA from arrestees as well.³ Further, this research on untested, backlogged kits also suggests that only about one-fifth to one-quarter produce a suspect DNA profile that matches a profile already in CODIS—also referred to as a CODIS hit. One of the studies was specifically designed to compare CODIS hits between cases with a known suspect versus an unknown suspect and found broadly similar results across the two groups. A known suspect is someone whose identity is known to the victim and therefore their identity is not in question. An unknown suspect is someone whose identity is not known to the victim; these are so-called stranger cases. Taken together, this research on the rape kit backlog suggests that, like the limitations of injury evidence, rape kits have limitations in producing suspect DNA profiles; that is, suspect DNA evidence can also be inconclusive or simply absent.

In what follows, I first describe the learning process that nurses went through as they discovered what rape kits and their associated evidence collection techniques could and could not do, with a focus on their role in producing clinical knowledge about the likelihood of injury following rape and sexual assault. I then describe the knowledge base that was evolving in parallel on the likelihood of biological specimen recovery—and specifically, suspect DNA recovery—through advocacy to clear rape kit backlogs and test all kits in police custody for suspect DNA. In the conclusion, I discuss the implications of the knowledge problem of rape kits and injury detection techniques for anti-rape activism and policy.

WHAT EXAMINERS RECORD TODAY

To contextualize the history of clinical knowledge production about the likelihood of detecting injury and recovering evidence, I will first describe what type of evidence is collected today. Although rape law reforms in the 1970s expanded legal definitions of rape and sexual assault, the legal requirements for corroboration under historical definitions of *forcible rape* still underpin evidence collection and include the following: identify the suspect, establish recent sexual contact, and establish likelihood of consent, usually through injury detection to show use of force and evidence of victim resistance.⁴ Therefore, medical forensic exams involve two principal types of potential evidence: (1) medical documentation of bodily injury, and (2) collection of biological specimens, such as blood, semen, and saliva, and physical debris that may establish recent sexual contact and link the victim to the suspect or to the crime scene.⁵

Forensic examiners use a variety of tools for this. To document ano-genital injury, examiners use toluidine blue (a staining technique) and colposcopy to help see tears, ecchymosis (bruising), abrasions, redness, and swelling. These possible injuries are represented by a framework known as TEARS that was first introduced by physician Laura Slaughter and her Sexual Abuse Response Team and SANE nurse colleagues in 1997.⁶ TEARS became an oft-cited nomenclature in the forensic nursing field. As I discuss in more detail below, nurses appropriated the colposcope from routine cervical cancer screening to magnify the cervix and photograph genital injury (i.e., to the vulva, vagina, and cervix). The examiner records this information on a standardized form. The form includes pictograms of male and female anatomy, and the examiner marks where injuries are seen or where sperm, blood, or saliva are found on the patient's body. Figure 9 shows examples of two pictograms. Based on the victim's account of the assault, the examiner takes swabs from the parts of the patient's body that are most likely to have retained suspect DNA.

NURSES ENGAGING IN KNOWLEDGE PRODUCTION

Although the medical forensic exam was designed to meet the evidentiary requirements of criminal law, in the 1970s, 1980s, and 1990s, the likelihood of clinical findings or specimen recovery was not yet established. Lack of standardization of the exam and its nonroutine character prior to reforms

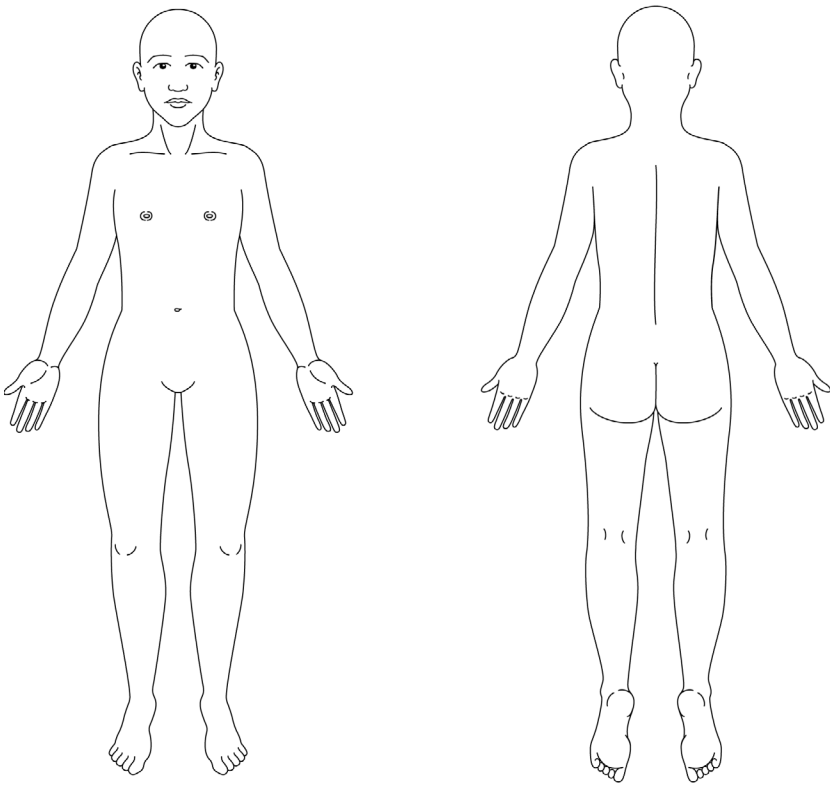


FIGURE 9. Pictograms from a state form for the adult/adolescent sexual assault forensic exam. Illustrated by Eva Mae Baucom Natividad.

in the 1970s and 1980s correlated with insufficient clinical data about the exam itself. Instead, to guide evidence collection, nurses consulted with prosecutors about legal definitions of rape and sexual assault under state penal codes and what types of evidence could support—or, in legal terms, corroborate—the victim’s account of the assault.

Prior to legal reforms advanced by the anti-rape movement in the 1970s, rape was most often defined as vaginal penetration by a man (not the woman’s husband) through the use of force; it was referred to as “forcible rape” in state penal codes, law enforcement statistics, and published legal and medical literature.⁷ Also, proving forcible rape required corroboratory evidence to support the victim’s testimony. By the end of the 1970s, most states had enacted reforms that made legal definitions of rape gender neutral; both men and women could be victims under the law. Many states also expanded definitions of rape to include oral, vaginal, and anal sex (not just vaginal intercourse) and

penetration with objects.⁸ However, reform efforts to remove corroboratory evidence requirements were uneven. Even in jurisdictions that eliminated the requirement, juries were often reluctant to convict an alleged perpetrator based on the testimony of the victim alone.

As a result, in practice, prosecutors still sought corroboratory evidence even after rape law reforms had been adopted in many states across the United States.⁹ Although early nurse reformers attempted to expand the circumstances in which allegations were deemed credible, they usually had to respond to legal requirements for corroboratory evidence in order to facilitate prosecution; this evidence continued to align with that historically required to substantiate “forcible rape.”

Publication of clinical research and forensic nursing reference texts

Once the forensic exams began to be administered on a regular basis in jurisdictions with model SANE or Sexual Assault Response Team programs, some early nurse reformers collaborated with allied physicians to use their newly available patient data to produce original clinical knowledge about the impacts of rape on patients, especially psychological aftereffects and the frequency and severity of physical injury. Therefore, part of the nurses’ professionalization project involved engaging in knowledge production, in part by publishing their new data on the likelihood of injury in academic journals,¹⁰ and in part by authoring textbooks, training manuals, and novel atlas of sexual assault reference texts modeled after a familiar medical atlas genre.¹¹

Over time, nurses discovered that evidence of severe or life-threatening bodily injury was uncommon, first through experience and later through research on patterns observed among patients treated by model programs. Also, examiners had documented that the likelihood of positive findings of sperm or other sources of suspect DNA diminished forty-eight hours after the incident, a rather short window period that depended on prompt reporting by victims and treatment by forensic examiners.¹² This narrow window was part of the reason why nurses advocated for specialized personnel like SANE nurses to be called when a victim reported to police or a hospital emergency department in order to facilitate prompt examination and avoid delays, since busy emergency department staff prioritized life-threatening cases. Due to advances in DNA technology since the 1990s, many jurisdictions began extending the collection period up to 120 hours, or five days,¹³ but the likelihood of specimen recovery varies by the type of assault and,

therefore, the site of collection on the body.¹⁴ The extended periods may not facilitate higher rates of specimen or DNA recovery.

Use of colposcopy to document ano-genital injury

Although nurses recognized early on that severe bodily injury was rare, the detection and interpretation of more subtle bodily injury had the potential to corroborate victim narratives. Therefore, it remained the subject of increasing attention as the field emerged and professionalized. One important example was the appropriation of colposcopy, a diagnostic procedure used to detect cervical cancer, for the purpose of finding ano-genital injury. In the early 1990s, physician Laura Slaughter, an early SANE ally and cofounder of one of the first Sexual Assault Response Teams in the country, was among the first to conduct research on rates of ano-genital injury detection using colposcopy. The colposcope is most often used to examine the cervix after an abnormal pap smear to look for cellular changes that may lead to cancer. As one nurse described it, the colposcope is “nothing more than a big microscope with a very good source of light on a movable base.”¹⁵ A practitioner inserts a speculum and positions the colposcope at the opening of the vagina to observe the vaginal walls and cervix with magnification. In the context of the post-rape exam, the colposcope could be used to see redness, swelling, or lacerations on the cervix that may not be visible to the naked eye. It would have a mounted camera to take pictures of any ano-genital injuries. Slaughter and her colleagues argued that the colposcope enabled the examiner to identify more subtle signs of penile-vaginal penetration and use of force than could be seen through “gross visualization” alone.¹⁶ At the time of their first published studies, the colposcope was considered the cutting edge of technology, and some nurses raised donations to purchase this expensive piece of equipment for their SANE programs.¹⁷ Guidelines also recommended anoscopy for injury detection following anal rape depending on the patient’s account of the assault.

The focus on injury detection represented by the invocation of this new technology in the post-rape exam came under scrutiny by other medical professionals due to its potential to reinforce expectations that all rape victims should have evidence of injury, thereby casting doubt on the vast majority of victims who did not.¹⁸ Further, as I will discuss in greater detail below, subsequent clinical studies by nurses with volunteer research subjects suggested that ano-genital injury can occur as a result of consensual sex.¹⁹ Another

complication, as Slaughter and her colleagues recognized, was that clinical findings may be the result of individual variation in anatomy or prior acute trauma unrelated to the assault.²⁰

CONTROVERSIES SURROUNDING INTERPRETATION OF ANO-GENITAL INJURY

As the field matured and the exam became more routinely conducted by specially trained examiners in most major metropolitan areas of the country, the relatively weak evidence base for both estimating the likelihood and character of physical injury following sexual assault, as well as the persistent ambiguity in its interpretation, became more apparent. As Ruth, a nurse who had been practicing in the field for over twenty years, reflected,

[In the 1990s] we were still in, I would say, kind of CSI [crime scene investigation] mode. Meaning, we were very much into the evidence collection aspect of this. . . . I think we were really caught up initially in the colposcopes, and taking pictures, and using dye, and collecting swabs, and all this stuff. And, that was exciting and new. And, we really thought we would be able to tell whether or not a rape had occurred from the medical evidence. I think, back then, we truly believed that we would eventually have the evidence. Because, think about it. I mean, I had been doing well-women exams. I did not see people come in for their pap smears bleeding and torn. So, I always assumed, well, if it was consensual sex, you didn't have injury. Wrong. . . . And, all of the studies that have been done between consensual and nonconsensual intercourse have basically said, you can't tell . . . if injury was consensual or not consensual. So, we always thought we would be the answer to proving whether or not somebody was raped, and we're not. . . . Rape is not a medical diagnosis.²¹

As she summarizes, the “CSI mode” at the time reflected the increasing adoption of DNA testing in the early 1990s and the use of new techniques to detect ever more subtle forms of ano-genital injury. However, the incorporation of new forensic tools in the exam led to a rather equivocal result: No pattern of ano-genital injury could be definitively associated with either consensual or nonconsensual sex.

In response to these limitations, practitioners in the field increasingly emphasized the determination of *correlation* between the victim's account and the presence or absence of clinical findings recorded during the exam.

This determination was about the *strength of correspondence*, rather than an examiner's opinion as to the veracity of the patient-victim's claim. Emphasizing degree of correspondence also suggested reasons why an examiner may not expect physical findings during the exam. For example, absence of bodily injury may be consistent with the victim's account if the sexual assault involved coercion, incapacitation (e.g., drug facilitated), or threat, rather than use of force.

However, in an adversarial court system, absent or ambiguous clinical findings may be construed as absence of evidence, and therefore absence of crime. Even in cases in which visible, physical evidence of injury is present, defense attorneys may argue that sex acts leading to ano-genital or bodily injury were consensual. Anticipating the potential discrediting effect of absent or ambiguous clinical findings, Lois, a nurse who had been practicing in the field for over thirty years, noted that examiners need to know and testify to statistics about rape:

That's why I say that the documentation is probably more important than the evidence. The [rape] kit will only show if there was sex, and if we get DNA . . . with whom . . . [and the nurse] needs to know that only three out of ten rape victims have injuries and needs to be able to testify in court that the lack of injury does not prove consent. . . . When she does her initial interview with the patient, [she needs] to be able to make sure that she documents why that patient was too afraid to fight back, because only 27% of rape victims fight back, because they're too afraid, because he's bigger than them, because he makes threats, because of all these reasons . . . and documenting that very clearly . . . on her initial form.²²

Nurses responded to the unintended discrediting effect that absent or ambiguous clinical findings could have in court by deploying their new professional authority as forensic examiners and experts on rape; they argued that absence of physical evidence could be, and often was, consistent with rape. In so doing, they leveraged their new role at the interface of criminal law and clinical medicine to redefine not only what counts as sexual violence, but also what clinical findings could or should be expected. With this process, nurses sought to expand the "legally discoverable" and culturally sympathetic understanding of rape to include cases that did not conform to that of forcible rape. However, in an adversarial criminal legal system, medical uncertainty maps onto legal uncertainty, or reasonable doubt, which in turn may serve to cast doubt on patients' accounts. While nurses have sought to emphasize *correlation* between survivor accounts and clinical

findings *rather than a causal link*, ambiguity or absence of clinical findings has undermined the probative value of the exam in court.

But where did the untested assumption that nonconsensual sex would be more likely to cause ano-genital injury come from? Certainly, part of the impetus to document ano-genital injury was due to the evidentiary requirements of state penal codes, as discussed above. However, through a review of forensic nursing textbooks and reference texts such as color atlases of sexual assault first published in the 1990s, I discovered that research conducted by Masters and Johnson in the 1960s on physiological sexual responses in heterosexual men and women and published in their landmark 1966 text *Human Sexual Response* shaped how nurses thought about sex and what could or could not occur as part of consensual sex.

In the next section, I draw on my review of forensic nursing textbooks and reference texts to illustrate how the Masters and Johnson research influenced the thinking of forensic nurses in the 1990s and how it evolved over the following two decades.

The influence of Masters and Johnson's research on human sexual response on nurses' interpretation of ano-genital injury

In the 1990s, as the field emerged and professionalized, Laura Slaughter and her Sexual Assault Response Team and SANE colleagues in California coded one of the first studies using the colposcope in a case-control study design. The case-control study design compared injuries sustained by patients reporting sexual assault with injuries observed among volunteer research subjects who were examined after consensual sex.²³ They argued that the study findings suggested that nonconsensual sex was more likely to cause ano-genital injury than consensual sex. As I will discuss in more detail below, the study design was flawed because victims initially examined after reporting rape, but who later recanted, were moved to the comparison group of women examined after consensual sex. This design flaw was criticized at the time by forensic nursing leader Linda Ledray. However, as one of the first clinical studies to use colposcopy to compare clinical findings between patients reporting rape and study volunteers examined after consensual sex, the findings had an outsized influence on the forensic nursing field just as it was coming into being.

To understand how precisely this happened, one has to work backward in a sense, excavating how—through sheer repetition and, interestingly, scientific citational practices—one set of research findings can become the basis for a

series of faulty assumptions and extrapolations. While Slaughter et al.'s influential 1997 study using colposcopy did not explicitly mention a theory of ano-genital injury, the earliest forensic nursing textbooks that she and her SANE colleagues in California authored in the 1990s extrapolated from William Masters and Virginia Johnson's research on heterosexual consensual sex in the 1960s. Masters and Johnson conducted research on sexual arousal and the physiological responses of men and women engaged in penile-vaginal penetration.²⁴ As part of their study of heterosexual couples, they observed men and women having sex in their clinic and measured the physiological changes that occurred in their bodies in response to sexual stimulation. Based on their investigations, Masters and Johnson developed what they termed the "sexual response cycle" that involved four phases (excitement, plateau, orgasm, and resolution); the particularities in men and women were summarized in figures 1-1 and 1-2.²⁵ Their empirical results suggested that a woman's "response to effective sexual stimulation" involved vaginal lubrication, increased blood flow (vasocongestion), increased muscle tension, voluntary or involuntary muscle contractions (myotonia), and lengthening of the vagina, which they posited prepared the vaginal canal for penile penetration.

Masters and Johnson's research became a cultural phenomenon, with *Human Sexual Response* becoming a popular reference text associated with the sexual revolution of the 1960s and 1970s.²⁶ But more significantly—and problematically—for our purposes, their research also became the basis for nurse examiners' assumption that nonconsensual sex was more likely to involve ano-genital injury. Beginning in the 1990s, Slaughter and her colleagues drew on the Masters and Johnson research to assert their claim that a victim's human sexual response would not occur during nonconsensual sex and, therefore, the absence of this response would make ano-genital injury more likely to occur.

The 1997 *Color Atlas of Sexual Assault*, coauthored by Slaughter and her SANE colleagues Barbara Girardin, Diana Faugno, Patty Seneski, and Margaret Whelan, presented a summary of the Masters and Johnson research in table 1-1.²⁷ The table not only outlined the four phases of the sexual response cycle in women and men, but also summarized the physiological measurements of anatomical changes reported in the text of Masters and Johnson's 1966 book. The inclusion of specific anatomical measurements in table 1-1 in the *Color Atlas of Sexual Assault* gave the appearance that Masters and Johnson's empirical observations were objective and precise measurements akin to the measurements forensic examiners would record

following sexual assault. In addition, Masters and Johnson's findings were presented alongside descriptions of basic human anatomy, suggesting that their 1966 study results could accurately represent physiological changes in response to sexual arousal that were just as durable and taken for granted as human anatomy itself. This representation of the anatomical changes as precise and generalizable reflected nurses' efforts to standardize and professionalize their own work as forensic examiners; they sought to objectively measure and document ano-genital injury as if their measurements and documentation directly and obviously followed from similar anatomical measurements that Masters and Johnson had detailed in their empirical observations of consensual sex.

Accompanying this summary of the human sexual response in the *Color Atlas of Sexual Assault* was an explanation of how California forensic examiners could extrapolate from the Masters and Johnson research to assert that the human sexual response would not be present during sexual assault:

The human sexual response prepares for non-traumatic intercourse (Masters, Johnson 1966). Table 1-1 describes the human sexual response. The normal sexual response is typically absent in the victim during the sexual assault. There is no pelvic tilt, partner assistance with insertion, increase in lubrication, or relaxation (Slaughter 1995), which explains why genital injury may occur in sexual assault. In spousal rape, the normal sexual response may occur to some degree and therefore injury may be limited or absent.²⁸

The reference to Slaughter is a paper presented at a certification course for the Sexual Assault Response Team in San Diego, California, suggesting that these inaccurate theories were presented as part of training California nurse examiners and other members of multidisciplinary response teams in the 1990s.²⁹

A 1999 reference text authored by SANE nurse Sharon Crowley, one of Laura Slaughter's colleagues in California, was titled *Sexual Assault: The Medical-Legal Examination* and repeated the same inference in Girardin et al.'s *Color Atlas*.³⁰ However, Crowley provided a more detailed explanation for why research on the human sexual response would help explain the presence or absence of ano-genital injury:

When we study the dynamics of the human sexual response, we can draw inferences that help explain how genital injuries result from a forced sexual situation. The synchrony of the consensual experience is such that participants both respond to the physical changes that occur within their own bodies, *and*

they accommodate to the desires, wishes, and movements of their partners. For example, the female tilts her pelvis at the beginning of coitus. This prevents the fully erect penis from entering her vagina at an angle that might cause pain or injury on insertion. Likewise, because the response to excitement in the female is lubrication, she is well prepared for coital activity. If certain actions or maneuvers do cause discomfort to one or the other, adjustments or adaptations can once again bring harmony. Herein is the difference between a consensual sexual experience and forced nonconsensual sexual acts, where the victim may simply comply with the demands of the rapist. Although the acts may be the same, the dynamics of the experience are vastly different.³¹

As this excerpt illustrates, nurse examiners made assumptions about nonconsensual sex based on their conceptualizations of what consensual sex would necessarily involve. However, Masters and Johnson did not explicitly study ano-genital injury or theorize its presence or absence. In my reading of their text *Human Sexual Response*, they also did not focus on or emphasize cooperation between partners in achieving penile-vaginal penetration. In essence, the SANE authors of these early reference texts cited the Masters and Johnson research, but used their findings on consensual sex between women and men to make unfounded inferences about the physiology of nonconsensual sex.

A later textbook edited by forensic nursing leader Virginia Lynch in 2006, titled *Forensic Nursing*, included a chapter on sexual assault authored by SANE forerunner Linda Ledray.³² The chapter did not refer to Masters and Johnson's research directly but rather restated the same logic without an explicit reference or citation. Ledray discussed the use of colposcopy in identifying ano-genital injury and invoked Slaughter and her SANE colleagues' rationale for expecting ano-genital injury after nonconsensual sex:

The literature also suggests that colposcopic examination is often extremely useful to visualize genital abrasions, bruises, and tears, as they are often so minute that they cannot be seen with the naked eye (Frank, 1996; Slaughter & Brown, 1992). These minor injuries are likely the result of tightened pelvic muscles, and a lack of pelvic tilt or lubrication during the forced penetration. This minor injury usually heals completely within 48 to 72 hours.³³

While Ledray repeated Slaughter and her SANE colleagues' logic, she cautioned that defense attorneys had begun to ask if "rough" consenting sexual contact could also lead to ano-genital injury. She noted that there was no available research to answer this question and emphasized that presence or absence of injury could not prove consent:

Ultimately, sufficient scientific information does not yet exist that determines if the trauma identified is the result of consenting or nonconsenting sexual contact. There is indeed a need of additional studies that look for a pattern of injury in consenting and nonconsenting sexual contact. What is known is that genital trauma does not prove rape and the absence of trauma does not prove consent.³⁴

By the time the second edition of Lynch's *Forensic Nursing* textbook was published in 2011, there was more research available suggesting that not only could ano-genital injury result from consensual sex, but that a variety of factors could affect the likelihood that ano-genital injury would be detected during forensic examination.³⁵ Accordingly, Ledray added a stronger caveat about the variety of factors that could affect the presence or absence of ano-genital injury recorded during forensic examination:

The literature suggests that a number of factors impact the likelihood of finding ano-genital injuries after a reported sexual assault. These include the time between the exam and the assault, methods of examination (gross visualization, colposcopy, or the use of a digital camera), the experience and skill of the examiner, and the past sexual history of the victim. It is also important to remember that there can indeed be genital trauma from consenting sexual contact. Trauma does not result solely from nonconsenting sexual contact or sexual assault. It does, however, appear that trauma is more likely and multiple sites of trauma are more likely as a result of sexual assault than from consenting sexual contact.³⁶

But even as Ledray emphasized the need for additional research on patterns of ano-genital injury to distinguish consensual and nonconsensual sex, she still restated the unproven theory that ano-genital injury—or what she called “anogenital trauma”—was more likely to result from nonconsensual sex and that multiple sites of ano-genital trauma would increase the likelihood that sexual contact was nonconsensual. This assertion reflected the conclusion drawn by Slaughter et al.'s 1997 study.³⁷

*Questioning untested assumptions about
ano-genital injury following sexual assault*

Four untested assumptions formed the basis of Slaughter and her SANE colleagues' logic and the forensic nursing reference texts that recapitulated it: (1) the human sexual response (as originally described by Masters and Johnson) was protective against ano-genital injury; (2) the human sexual

response did not occur during sexual assault; (3) examiners would expect ano-genital injury to occur during sexual assault due to the absence of the purportedly protective effects of the human sexual response; and (4) consensual heterosexual sex between men and women always involved female arousal and orgasm.

Perhaps most surprising is the implicit assumption that consensual heterosexual sex necessarily involved female arousal and orgasm. As feminist scholars have noted, there is an “orgasm gap” between men and women during partnered heterosexual sexual encounters: Women report having fewer orgasms than men.³⁸ Therefore, it is possible that women in Slaughter et al.’s (1997) control group did not have an orgasm, even though they engaged in consensual heterosexual sex with a male partner. It is also plausible that women enrolled in the control group had prior histories of sexual assault that may have impacted their psychological and physiological responses during consensual sex.³⁹

The first three assumptions related to ano-genital injury following sexual assault became less tenable as more research studies were published on ano-genital injury among study research volunteers who underwent forensic examination following consensual sex. In 2013, the first *Atlas of Sexual Violence* published by the forensic nurses’ professional association, the International Association of Forensic Nurses (IAFN), made the most explicit rebuttal to these untested assumptions. The SANE nurses Jenifer Markowitz and Jennifer Pierce-Weeks authored the chapter titled “Consensual Sex Injury” that explicitly challenged these inferences by suggesting that they were not grounded in scientific research and were potentially inaccurate:

For decades, rates of anogenital injury found during medical evaluation following nonconsensual sex have varied widely. The use of the Masters and Johnson theory [sic] of human sexual response (1966) has been frequently employed to explain genital injury in patients after sexual assault. The theory holds that the normal physiological changes that take place during consensual sexual activity, such as lubrication, lengthening of the vaginal outlet, and pelvic tilt, are protective in conjunction with mutual cooperation between sexual partners. Therefore, according to the theory, the presence of anogenital injury would be more likely in situations where the human sexual response did not occur, as in sexual assault. However, Masters and Johnson did not look at the presence or absence of injury in consensual sexual activity. Additionally, recent studies documenting the presence of injury in consensual sex have shed significant doubt on the veracity of this theory. The science is still emerging regarding the frequency and types of injury from consensual

sexual contact, but the clinical picture has begun to take shape. See Table 5-1 for an overview of existing research specific to consensual sex injury.⁴⁰

In their table 5-1, Markowitz and Pierce-Weeks summarized eleven studies that included records of ano-genital injury following consensual sex among volunteer female research subjects who had sex with a male partner. The authors concluded that both consensual and nonconsensual sexual contact could result in injury to the female genitalia.⁴¹ They also emphasized the limitations of available research on injury following consensual sex, such as small sample sizes and an almost exclusive focus on ano-genital injury in women following penile-vaginal penetration, and acknowledged the need for studies that attended to consensual oral and anal sex as well as injuries in men and same-sex couples.⁴²

In addition to demonstrating that ano-genital injury can result from consensual sex, nurse examiners have also questioned the untested assumption that the human sexual response cannot occur during nonconsensual sex. For example, in the 2011 clinical training manual *Medical Response to Adult Sexual Assault: A Resource for Clinicians and Related Professionals*, coedited by professor of nursing Ann Wolbert Burgess (who introduced the nursing diagnosis Rape Trauma Syndrome), SANE forerunner Linda Ledray, and physician Angelo Giardino, the authors of the chapter titled “Body Injury and Dynamics of Sexual Assault” explained why physiological changes associated with sexual arousal may occur during nonconsensual sex:

Researchers once believed lubrication was the hallmark of the human sexual response, protecting both partners from injury during coitus. Studies now show that lubrication can be an element of sexual response, but it can also occur as a purely genital response. A genital response is an involuntary, autonomic body response to a sensory stimulus that results in increased blood flow to the pelvic area. The stimulus is most often tactile and can be anything from the slight brushing of underwear to forceful pushing against the perineum to effect penile penetration. Even in nonconsenting intercourse there is a certain degree of lubrication. It is important to recognize that a sexual response includes both physical and psychological components. A genital response is only physiologic in nature. . . . In times of fear and threat of bodily harm, the sympathetic nervous system becomes activated and mobilizes the fight, flight, or freeze responses, putting the individual in survival mode. When this happens, neurochemicals are released, stimulating the body to send blood to the large muscle groups and pelvis. Nonessential body functions cease; heart rate, blood pressure, and respirations increase. In fact, the increased blood flow to

the lower part of the body can further increase vasocongestion, causing more lubrication, but this lubrication has nothing to do with sexual response.⁴³

While the authors of this chapter do not cite Masters and Johnson explicitly, they refute the inference that Slaughter and SANE nurses in California had made in the 1990s when they argued that the human sexual response does not occur during nonconsensual sex and therefore the physiological changes associated with it also do not occur. However, the scientific basis for these later contradictory assertions by Brown et al. is not clear, and they may not be evidence-based, given that only two dated references are given in their footnotes.⁴⁴

Anti-rape activists have long cautioned that survivors have a wide range of responses to the trauma of sexual assault. In fact, survivors so often have an unwelcome physiological reaction—such as the common “freeze” response during an assault—that the language of “my body betrayed me” is often invoked to describe the disconnect between survivors’ rejection of the violence and harm that they experienced and the counterintuitive ways that their bodies responded to it in the moment.⁴⁵ Rape victim advocates often reference the range of responses to trauma in order to counter ongoing and damaging legacies of historical forcible rape laws on how people imagine a survivor should react.⁴⁶

In contrast to the untested assumptions about how to interpret ano-genital injury that I have reviewed thus far, I considered one forensic nursing textbook coedited by an early nurse reformer and professor of nursing, Barbara Moynihan, that advised forensic nurses to document clinical findings but avoid speculating about the underlying cause of any ano-genital injury recorded. The chapter titled “Sexual Assault Intervention and the Forensic Examination,” coauthored by SANE nurse Patricia LaMonica, advised the following:

When making notations during the physical examination, the examiner should state clearly and objectively what was found and should avoid any attribution to the cause of injury unless readily deduced from the actual observation of injury.⁴⁷

The same statement was repeated verbatim in this chapter of the textbook’s second edition.⁴⁸ In contrast to the emphasis on interpretation of ano-genital injury articulated in the other forensic nursing textbooks and reference texts, Moynihan’s coedited textbook encouraged clinical description of injuries without attribution of cause.

By 2016, two forensic nursing reference texts coedited by SANE leader Diana Faugno, who had coauthored the 1997 *Color Atlas of Sexual Assault* with Slaughter, focused on providing individual patient case studies with accompanying photographs of ano-genital injury to demonstrate the wide range of injuries that can result from both consensual and nonconsensual sex. One of these, the two-volume *Physical Examinations of Sexual Assault Pocket Atlas*, was designed to help nurse examiners compare ano-genital injuries photographed for volume 1 following reported sexual assault, with injuries photographed for volume 2 following consensual sex, which also included images of “normal” or “non-assaultive physical findings.”⁴⁹ While the chapter on adults (eighteen to thirty-nine years old) in volume 2 of the pocket atlas emphasized that “the examiner must be familiar with the appearance of normal anatomy in order to recognize injury and/or medical conditions that can influence the physical appearance of the tissue and mimic sexual assault injury,” the authors cautioned that “it is also impossible to use the evidence of, or absence of, injury to determine whether or not sexual contact was consensual.”⁵⁰

While the 2016 pocket atlas did not offer detailed interpretations of ano-genital injury depicted in the selected case studies and photographs of volume 1, the 2016 second edition of the *Sexual Assault Quick Reference for Health Care, Social Service, and Law Enforcement Professionals*, also coedited by Faugno, offered guidance on interpretation of presence or absence of physical findings but emphasized the nonspecific character of ano-genital injury:

The clinician must recognize that visible physical findings in the anogenital area can be caused by consenting or nonconsenting sex. The injury may also be caused by infection, friable tissue, medical conditions, etc. Whether an injury or no visible injury is present, the SANE will document it, but the injury itself cannot tell its cause. . . . A complex relationship exists among the variables that can influence injury type and location. A comprehensive history is critical to understanding the presence or absence of injury. The variables influencing injury can be grouped as factors related to the victim, the perpetrator, the circumstances, or the environment (Table 9-3).⁵¹

According to table 9-3, the factors influencing injury type and location related to the victim include anatomy and physiology of the reproductive structures; health and developmental status; condition of the genital structures; previous sexual experience; lubrication of the vaginal vault (natural or artificial); partner participation; positioning and pelvic tilt; and psychologic response. While there was no reference to the first textbooks published in the 1990s reviewed above or to the original Masters and Johnson research,

the same logic had been folded by Faugno et al. into the list of variables influencing injury type and location in table 9-3 through references to lubrication of the vaginal vault (natural or artificial), partner participation, and positioning and pelvic tilt. In this way, nurses had not completely escaped Slaughter and her SANE colleagues' false inferences based on Masters and Johnson's research. The emphasis in interpreting ano-genital injury had shifted away from explaining why nonconsensual sex could cause ano-genital injury to illustrating the variety of factors that could influence presence or absence of injury. However, the early rationales were repeated, even as the authors acknowledged a much more expansive set of factors and demonstrated an awareness that any clinical findings could be the result of injury, marks, scars, or disease unrelated to the assault.

*Concerns surrounding ethnic and racial disparities
in ano-genital injury detection*

While these limitations surrounding the usefulness of clinical evidence exist for all survivors, nurses became concerned that they may be especially pronounced for women of color, especially if available injury detection techniques systematically underestimate or fail to record ano-genital injury in women with darker skin tones. For example, professor of nursing Marilyn Sommers coauthored several studies investigating whether or not there are racial and ethnic disparities in ano-genital injury detection. The initial 2006 study was published in the *Journal of Obstetric, Gynecologic, and Neonatal Nursing* (a journal of the Association of Women's Health, Obstetric and Neonatal Nurses, or AWHONN) and used a retrospective medical chart review to compare rates of ano-genital injury detection among Black and white women seen at a sexual assault forensic nurse examiner program.⁵² Sommers and her coauthors noted that "nurse examiners have reported anecdotally to the investigative team that they note differences in the ability to identify bruising, abrasions, and redness depending on the degree of skin pigment in their patients, but no literature was available to support the clinical observations that injuries were more difficult to observe in women with dark skin."⁵³ Sommers and her coauthors reported that white women were more than four times as likely as Black women to have genital injury recorded during forensic examination.

While Sommers and her coauthors could not explain the cause of the observed disparity, they posited three possible reasons for the difference.

First, they speculated that nurse examiners may not have been able to detect subtle forms of ano-genital injury as easily on darker skin compared to lighter skin using available visualization techniques (direct visualization, contrast media, colposcopy). Second, while the limitations of these techniques was the focus of their discussion, they noted that they could not rule out the possibility that “differences may exist that make skin of some populations more resistant to injury than other populations” such as “underlying properties in the skin that might have made the skin of some subjects more or less friable than others.”⁵⁴ Third, they acknowledged the following: “Although we have no reason to suspect racial/ethnic bias occurred on the part of the examiners who are multi-racial, that possibility exists as well.”⁵⁵

The observed racial disparity in rates of ano-genital injury among Black and white women seen by SANE nurses prompted concern that limitations of available injury detection techniques could be systematically putting women of color at a disadvantage in the criminal legal system; this concern presumed that presence of clinical findings would make investigation and prosecution more likely. The initial study prompted Sommers and her colleagues to conduct subsequent research using both a retrospective review of patient medical records⁵⁶ and prospective clinical studies with volunteer research subjects.⁵⁷ This research attempted to control for additional variables, including measures of skin color (in addition to race/ethnicity); characteristics of the sexual encounter; and (most recently) properties of the skin that may be linked to injury, including skin elasticity and skin hydration. Taken together, the results of these studies are equivocal: Sometimes skin color was more predictive of ano-genital injury than race/ethnicity,⁵⁸ sometimes both mattered,⁵⁹ and sometimes the results were unclear or inconclusive.⁶⁰ Measures of skin color varied across the studies as well. Initially, the research team measured skin color using digital imaging analysis (DIA) and colorimetry, with color values for lightness/darkness, redness/greenness, and yellowness/blueness generated for digital images of “untanned” skin for each patient or research volunteer using the colorimetry functions within Adobe Photoshop CS2.

In the most recent (2019) study, skin color was measured with a spectrophotometer. As the research team attempted to measure and control for multiple variables that might explain any racial disparities observed, they turned to what they termed “classic skin science work” that suggests “injury prevalence and frequency may differ by race/ethnicity because of biomechanical differences in skin.”⁶¹ To support this assertion, they cited a 1974 paper by Weigand et al. (“Cell Layers”) reporting that non-Hispanic Black

research participants had more layers in their stratum corneum (SC, or the outer layer of skin) than non-Hispanic white research participants, and that their SC, or outer layer of skin, also had a heavier weight and density.⁶² To operationalize indicators of what they referred to as “skin biomechanics,” which they defined as “the biological, physical, and chemical properties that allow the skin to protect the body,” they measured skin viscoelasticity using a Cutometer and skin hydration with a Corneometer.⁶³ The findings for skin viscoelasticity and skin hydration were inconclusive.

While these studies of racial and ethnic disparities in ano-genital injury detection are equivocal, they illustrate a larger point that nurses’ well-meaning quest to document racial and ethnic disparities, explain them, and ideally ameliorate them has led to a continuing emphasis on locating indications of harm on the body. This focus on physiological markers of harm has, in turn, further narrowed attention from locating lack of consent on the body to an even more narrow focus on human anatomy and physiology; the latter suggests residues of biological determinism in interpretations of the presence and absence of ano-genital injury, thereby deflecting attention away from broader problems of systemic racism in health care and criminal legal systems.

. . .

Taken together, clinical research published since the 2000s indicates that ano-genital injury following assault is often subtle, nonspecific, or simply absent. Indeed, by 2014, Slaughter herself acknowledged that there are no known patterns of injury (including absence of injury) definitively correlated with either consensual or nonconsensual sex, and therefore examiners should not assume that ano-genital examination will result in clinical findings.⁶⁴ The continued influence of earlier texts and faulty assumptions, however, has proven more difficult to disrupt—not least because of the reform agenda with which many of these early texts were associated. As noted in the introduction to this book, documentation of bodily injury was seen as documentation of harm, a way to make women believable by capturing their words, looking for corroborating marks on the body, and making their claims legible and, thereby, credible. Some nurses even testified in court that they could tell if a woman had been raped based on presence of ano-genital injury.⁶⁵ What nurses could not foresee, however, was the way in which such efforts to better support survivors and bolster the legitimacy of evidence-based techniques to corroborate their accounts might serve, ultimately, to undermine

nurses' own medical-legal authority and enable defense attorneys to use women's bodies—with or without documented injuries—to essentially testify against survivors. For although nurses have since attempted to redefine absence of evidence as still being consistent with rape, the exam's inability to identify conclusive clinical findings can have an unintended discrediting effect on survivors of sexual violence. In the next section, I will discuss how defense attorneys have used clinical research on the nonspecific character of ano-genital injury to challenge its probative value in court.

CHALLENGES TO THE EVIDENCE BASE FOR NURSE EXAMINERS' CLAIMS ABOUT ANO-GENITAL INJURY IN COURT

Prior to these later shifts in thinking regarding the nonspecific character of ano-genital injury, as noted earlier it appears that some forensic nurses were testifying in court that these injuries suggested nonconsensual sex had occurred. They had cited the untested assumptions about ano-genital injury that Slaughter and SANE nurses in the 1990s had extrapolated from Masters and Johnson's 1960s research on the human sexual response. In one example, from an unpublished criminal court case in Virginia, *Commonwealth v. Johnston* (2000), defense attorneys challenged the scientific basis of the testimony of SANE nurse Suzanne Brown at Inova Fairfax Hospital, filing a "Motion in *Limine* to Exclude Opinion Testimony of Suzanne Brown as Scientifically Unreliable"; this was granted by the court.⁶⁶ The court opinion summarized the disputed SANE testimony as follows:

At the hearing in this matter, Ms. Brown agreed with the defense counsel's summary of her opinions as follows: The "human sexual response" is an automatic, immediate, and involuntary physical change that women go through in anticipation of consensual sexual intercourse. When the "human sexual response" occurs, the labia become engorged with blood and change structurally to avoid genital injury. Because the "human sexual response" protects against genital injury during consensual sex, the presence of genital injury detectable by gross visualization demonstrates that sexual activity took place without the woman's consent. Because the "human sexual response" is automatic, immediate, and involuntary, factors such as the length of the foreplay period, the influence of drugs or alcohol, sexual technique, and the lack of lubrication do not affect the conclusion that the presence of genital injury detectable by gross visualization demonstrates sex without consent.⁶⁷

The court's summary of the nurse examiner's testimony illustrates how she was basing her opinion on the untested assumptions about ano-genital injury that I discussed above.

To dispute Brown's testimony, the defense cited several studies available in 2000, including three clinical investigations on the likelihood of detecting ano-genital injury with use of the colposcope conducted by Slaughter and her Sexual Assault Response Team and SANE colleagues. The defense hoped to demonstrate that ano-genital injury had been observed among women examined after consensual sex.⁶⁸ Further, the defense quoted from Slaughter et al.'s 1997 study to demonstrate that even the authors had stated the following: "Further investigation is needed to determine whether there is a finding or group of findings that can distinguish nonconsensual and consensual sexual activity."⁶⁹ The defense concluded with a damning critique of Brown's testimony:

In summation, nothing in the extensive medical literature submitted to the court, including the medical literature that Ms. Brown testified she relies upon in order to form her opinions, supports Ms. Brown's theory that she can distinguish nonconsensual from consensual sexual intercourse by the presence of genital injury detectable by gross visualization. Not only is there an absence of support in the medical literature for Ms. Brown's theory, but also the defendant has produced medical literature that directly contradicts her opinions.⁷⁰

The court concluded, "There is no support in the medical literature for Ms. Brown's opinions about the 'human sexual response' as it relates to genital injury."⁷¹ While the motion was granted and Brown was prohibited from testifying at trial about the human sexual response, the court upheld Ms. Brown's expertise as a Sexual Assault Nurse Examiner and permitted her to testify "about any injuries that she observed in the women" and "that any genital injuries she observed are consistent with penetration or sexual intercourse."⁷² In essence, the court ruled that the untested assumptions about ano-genital injury extrapolated from the Masters and Johnson research by Slaughter and SANE nurses had no scientific basis.

This court case in 2000 became a turning point in the forensic nursing field. In response to the court's decision, winner of the IAFN (International Association of Forensic Nurses) Virginia A. Lynch Pioneer Award in Forensic Nursing and Johns Hopkins School of Nursing professor, Daniel Sheridan, and his doctoral nursing student Jocelyn Anderson, conducted a review of existing research on the subject of ano-genital injury following consensual and

nonconsensual sex. This was published in the *Journal of Emergency Nursing*.⁷³ The authors found that variations in study methodology, and lack of standardized measurement techniques and injury classification systems, precluded direct comparison among available studies. They concluded the following: “Based on currently available data, the presence or absence of injury cannot be used to determine consensual versus nonconsensual intercourse.”⁷⁴ In essence, there was no established pattern of injury (including absence of injury) that could distinguish consensual from nonconsensual sex. They provided another caution: “Emergency nurses caring for sexual assault patients should continue to document injuries as part of a comprehensive medical assessment but should refrain from documenting or testifying in a courtroom setting that the injuries occurred as a result of nonconsensual sex.”⁷⁵

The nonspecific character of ano-genital injury also became a focus of training for prosecutors specializing in sexual and gender-based violence. The organization AEQuitas was founded in 2009 to provide a clearinghouse for training and information sharing among prosecutors litigating cases of sexual violence, domestic violence, child sexual abuse, stalking, and human trafficking.⁷⁶ SANE nurse Jenifer Markowitz, coauthor of the chapter in the 2013 IAFN *Atlas of Sexual Violence* discussed above,⁷⁷ created two training guides to assist prosecutors in interpreting clinical findings of ano-genital injury documented during medical forensic examinations. These training guides explained that absence of ano-genital injury is common,⁷⁸ and that, even when present, an injury is often inconclusive or nonspecific; they emphasized that it cannot be used to distinguish between consensual and nonconsensual sex.⁷⁹ The guide that Markowitz coauthored with attorney Teresa Scalzo explicitly acknowledged that the untested assumptions about ano-genital injury extrapolated from Masters and Johnson’s research on human sexual response were often used to assert that ano-genital injury was more likely to occur during nonconsensual sex. They emphasized that available clinical research studies cast doubt on these untested assumptions:

Contrary to widely held beliefs, anogenital injuries are not exclusive to non-consensual sex. . . . This contradicts the often-touted theory of human sexual response, developed by Masters and Johnson almost 50 years ago. The use of this theory has been frequently employed to explain anogenital injury in patients presenting after sexual assault. . . . However, recent studies have shed significant doubt on the veracity of this theory, and generally it should be avoided as an explanation for the presence or absence of anogenital injury in sexual assault cases.⁸⁰

The authors further urged presenting “ethical testimony related to the significance of injury findings, based in both clinical experience and the current science, avoiding overemphasis or over attribution of anogenital injuries.” The fact that some nurse examiners may have claimed that ano-genital injury could only result from nonconsensual sex is deeply troubling, suggesting the possibility that plea bargains and even convictions may have been based on inaccurate testimony prior to these cautionary training materials and reference texts published later. Indeed, in 2012, one of my interlocutors had touted one of the key benefits of medical forensic exams as increasing the rate at which defendants accepted plea bargains.⁸¹

This overstatement of the certainty and scientific basis for clinical forensic evidence is not particular to forensic nursing, especially in light of the scathing critique of the forensic sciences published in the widely influential 2009 National Academies of Sciences, Engineering, and Medicine report titled *Strengthening Forensic Science in the United States: A Path Forward*, which garnered national and international attention. The report publicly exposed the poor scientific evidence base for many forensic science disciplines. The experts convened by the National Academies reviewed several forensic science disciplines and types of forensic evidence, including nuclear and mitochondrial DNA testing, toxicology and drug analysis, ballistics, death investigation by coroners (including autopsy), and interpretation of pattern evidence such as fingerprints, toolmarks, and bite analysis.⁸² The validity and reliability of the science underpinning these forensic science disciplines and practices was questioned, with the exception of nuclear DNA testing that had been rigorously vetted in part due to its applications outside of the criminal legal system, such as in medicine.⁸³ While the work of forensic nurse examiners was not included in the remit of the expert committee, the report included the IAFN alongside the American Academy of Forensic Sciences as one of the national professional associations implicitly indicted for lack of adequate standards and oversight. However, the report did not take up the weak evidence base of clinical forensic nursing or the interpretation of clinical findings derived from medical forensic exams for sexual assault. The expert committee only interrogated the work of medical examiners conducting autopsy with deceased victims. Nevertheless, nurse examiners’ interpretations of clinical findings have come under increased scrutiny, as the Virginia lower criminal court case, discussed above, demonstrates.

The weak scientific evidence base for estimating and interpreting the likelihood of ano-genital injury led to calls for use of case-control study designs

that are more rigorous.⁸⁴ These would compare clinical findings recorded from volunteer research subjects after consensual sex with those from patients reporting sexual assault. In the next section, I discuss some of the epistemological and ontological challenges of constructing case-control study designs to estimate the likelihood of ano-genital injury following sexual assault.

THE PROBLEM OF CASE-CONTROL STUDIES COMPARING INJURIES FROM ASSAULTS AND CONSENSUAL SEX

The nonspecific and often inconclusive character of ano-genital injury raised the question of whether or not clinical findings could in fact corroborate survivor testimony. While studies of ano-genital injury after consensual sex have been instrumental in demonstrating that both consensual and nonconsensual sex can result in ano-genital injury, there are several reasons to question the plausibility of direct comparison between consensual and nonconsensual sex, for example, through a case-control study design.

First, constructing a case-control study design implicitly compares a traumatic event with a (presumably) nontraumatic event. It is difficult to know how psychological trauma may impact the presence or absence of physical injury. For example, as discussed above, the fight-flight-freeze response may impact how a person's body responds to sexual assault.⁸⁵

Second, comparison is also stymied by the problem of victims recanting after an exam has been conducted. As I discussed above, this was a flash-point of controversy within the forensic nursing field when physician Laura Slaughter and her Sexual Assault Response Team and SANE colleagues in California published the 1997 study using colposcopy to compare ano-genital injury between patients reporting sexual assault and volunteer research subjects examined after consensual sex. Their oft-cited and influential study was one of the first to use colposcopy to document ano-genital injury in conjunction with a case-control study design following consensual and nonconsensual sex. Slaughter and her coauthors reported both a higher *prevalence rate* of ano-genital injury overall, as well as a higher *mean number of sites* of ano-genital injury, among the sample of women who reported sexual assault and were deemed to have made "valid complaints" based on police investigation.⁸⁶ Those who initially reported sexual assault but later recanted were moved to the control group of those who had consensual sex. In fact, most women in that "control" group (forty-eight of seventy-five, or 60%) had initially

reported sexual assault and later ostensibly “admitted to consensual sexual intercourse,” which reportedly was “confirmed by police investigation.”⁸⁷ It is not clear if the women’s change of reporting was confirmed by the women themselves or confirmed by police after they concluded their investigation and believed the allegations to be false (or a combination of the two).

Linda Ledray called the choice to include victims who recanted in the control group “problematic” when she reviewed the study in her chapter on sexual assault in both editions of Virginia Lynch’s forensic nursing textbook, noting that Slaughter and her coauthors did not indicate whether or not the women who recanted had “vaginal injuries.”⁸⁸ Ledray was pointing out that she could not evaluate the impact of moving those who recanted to the comparison group on the study’s injury estimates because Slaughter et al. had not reported whether or not those who recanted had injuries when they were examined. There are many reasons why women may report and later recant that have nothing to do with whether or not sexual assault occurred, including fear of retaliation, poor treatment by police, or lack of probative evidence that may cast doubt on their account and impede case prosecution. The decision to move women who recanted to the control group was a major flaw in the methodology and study design. Nevertheless, as I chronicled above, this study was widely cited as clinical evidence for the (inaccurate) assumption that nonconsensual sex would be more likely to cause ano-genital injury than consensual sex.

The third reason to question case-control study designs to estimate likelihood of injury, and perhaps most significant from the standpoint of epistemology, is that there is no specific referent against which to compare clinical findings. A comparison to death investigation (autopsy) is useful in illustrating this point. In autopsies, the fact of death is known, even if cause of death is uncertain. In sexual assault, no such specific referent is available. As noted above, the fact of assault is itself what is in question, or more precisely, the fact of sex and the question of consent.

During forensic examination of living patients—survivors—the symptoms on the body are being read as clues, similar to diagnosis of disease, even though, as examiners are trained to recognize, rape is not, in fact, a medical diagnosis. It is a legal category, and the fact of rape or sexual assault is determined by courts. Yet seeking to locate indicators of forcible sexual contact, such as minor or major injury, mimics the ways that clinicians look for symptoms to help diagnose disease, blurring distinctions between what is and is not a medical diagnosis in practice.

The determination of the fact of sexual contact—or the sex act itself, however defined—places the exam squarely in the realm of sex and sexuality. As one nurse put it succinctly, “Rape is sex without consent.” This statement was especially true after laws were changed to recognize a much wider range of sex acts, including attempted or completed vaginal, anal, or oral contact or penetration with genitalia or objects, and to incorporate gender-neutral language that recognized male victims and female perpetrators.

In this section, I have discussed challenges surrounding ano-genital injury detection and its interpretation. But there is still the question of forensic identification of suspects. The anti-rape advocacy to “end the rape kit backlog” has focused squarely on testing all rape kits in police custody with the goal of identifying unknown suspects and serial offenders. In the next section, I consider the question of forensic DNA identification and why rape kits can also fail to produce probative evidence.

PROBATIVE VALUE OF FORENSIC IDENTIFICATION OF SUSPECTS

DNA recovery is a focus of the medical forensic exam because it has the potential to confirm or reveal the suspect’s identity. While some jurisdictions began adopting forensic DNA identification techniques in the 1980s, the methods became more widely used in policing in the United States in the 1990s—nearly two decades after the nurse activism began. Prior to DNA, available identification techniques relied on inclusion/exclusion criteria, such as hair and blood type. However, DNA identification techniques have greatly improved over time. Today, smaller samples can be used to identify suspects. The major challenge in sexual assault cases is that most suspects are known to the survivor. Their identity is not in question.

National surveys provide some of the best estimates of the number of victims assaulted by a stranger, especially in sexual assault cases where rates of reporting to law enforcement remain low. Therefore, population-based surveys that ask respondents if they have ever been sexually assaulted, and by whom, provide the most accurate estimates of the proportion of cases that involve a suspect who is truly unknown to the victim. In these cases of so-called stranger rape, positive forensic identification of the suspect would have the most probative value in court.

While national surveys have used different methodologies and have varying response rates, and therefore are not directly comparable, the estimated proportion of female respondents who were raped or sexually assaulted by a stranger is broadly consistent, with more variation in estimates for male respondents. In this section, I review three national surveys that provide such estimates. All three included male respondents, but none recruited or collected data on nonbinary and transgender respondents.

The first, one of the most long-standing surveys that captures nationally representative data on sexual violence, is the annual National Crime Victimization Survey run by the Census Bureau for the US Department of Justice's Bureau of Justice Statistics. However, the focus of the survey is crime victimization; rape is just one of the many crimes about which respondents are queried. The Bureau of Justice Statistics, or BJS, issued a special report on violence against women that analyzed multiple waves of survey data collected through the National Crime Victimization Survey between 1994 and 2010.⁸⁹ The report was largely restricted to female respondents due to low reported rates of sexual violence among male respondents; the sample sizes of male victims were too small for detailed analysis. The special report indicated that approximately 22% of what the report calls rape or sexual assault victimizations against females were committed by a stranger.⁹⁰ This estimate of stranger rape again suggests that most female victims knew the person who harmed them, whether they were an intimate partner, relative or family member, friend, or acquaintance.

The second survey discussed here was one of the first nationally representative surveys designed to bridge crime statistics and public health data on sexual violence. The 1995–1996 National Violence Against Women Survey (also known as the NVAW) was jointly run, and published, by the National Institute of Justice and the US Centers for Disease Control and Prevention (CDC).⁹¹ This survey was designed to estimate prevalence rates and characteristics of sexual violence. The authors of the initial 1998 report explicitly acknowledged the influence of the 1970s second-wave feminist movement in the United States on scholars trained in diverse disciplines who examined violence against women in their own academic disciplines.⁹² The same authors, Patricia Tjaden and Nancy Thoennes, wrote the initial and full reports, and situated the NVAW survey within that lineage of feminist research. The full report, published in 2000, suggested that most rape victims identified by the survey were under the age of eighteen the first time that they

were raped.⁹³ More specifically, the report stated that, of the respondents who reported ever being raped (at any point in their lifetime), 21.6% of women and 48% of men were younger than age twelve when they experienced their first rape, and 32.4% of women and 23.0% of men were twelve to seventeen years old.⁹⁴ Taken together, more than half (54%) of female rape victims and nearly three-quarters (71%) of male victims were younger than age eighteen when they experienced their first attempted or completed rape. Among victims raped before age eighteen, the report estimated that 14.3% of the women and 19.5% of the men were raped by a stranger. For respondents raped since age eighteen (as adults), the report estimated that approximately 16.7% of female victims were raped by a stranger; sample sizes for male victims who were raped as adults were too small for analysis. These estimates for rates of stranger rape (differentiated for children and adolescents versus adults) suggested that most victims knew the person who harmed them, whether that person was an intimate partner, relative or family member, friend, or acquaintance.⁹⁵

The third survey discussed here, the National Intimate Partner and Sexual Violence Survey (referred to as the NISVS), was also conducted by the CDC.⁹⁶ This survey had high enough sample sizes of male respondents reporting sexual violence to provide the opportunity for detailed analysis of the experiences of male victims. Analysis of survey data collected in 2016 and 2017 found that an estimated 12.1% of female victims and 13.7% of male victims were raped by a stranger; these estimates refer to rape and sexual assault that occurred at any point during the respondent's lifetime.⁹⁷ These estimates also suggest that most survivors knew the person who harmed them, whether that person was an intimate partner, relative or family member, friend, or acquaintance. Importantly, this survey suggests that the rates of stranger rape are similar among women and men.

The estimated rates of stranger rape drawn from these three national surveys are broadly consistent. Most victims know the person who harmed them. This has implications for the probative value of forensic DNA identification. In cases in which the suspect is known to the survivor, forensic identification may have limited probative value in court. In these cases, even if suspect DNA is recovered and the fact of sex is not in question, the case will turn on the question of consent, which can be very difficult to prove beyond a reasonable doubt. In this sense, the type of evidence that rape kits can provide does not align well with the profile of rape and sexual assault in this country.

Of course, even if the estimated proportion of sexual assault cases involving a suspect truly unknown to the victim is only approximately one-tenth to one-quarter, there are still a significant number of victims whose cases could benefit if suspect DNA is collected. In the next section, I turn to the research on the likelihood of DNA recovery that has emerged from advocacy to end rape kit backlogs in the United States.

ENDING THE RAPE KIT BACKLOG AND THE LIKELIHOOD OF SUSPECT DNA RECOVERY

While most perpetrators are known to victims, the risk of not identifying unknown and serial offenders motivates much of the advocacy to test all rape kits in police custody. In fact, advocacy to clear so-called rape kit backlogs in jurisdictions across the United States has prompted collection of some of the most robust information on the likelihood of recovering suspect DNA during medical forensic exams. Like problems of ano-genital injury detection, suspect DNA may not be present for several reasons, especially if delays in reporting or in examination decrease the likelihood that biological specimens such as blood, semen, or saliva will still be present on the victim's body. According to the Joyful Heart Foundation, a leading activist organization co-led by celebrity actor Mariska Hargitay that advocates to end rape kit backlogs, there are still large numbers of untested kits. These persist despite ten years of state and federal legislative efforts to inventory the kits, test for DNA, identify CODIS hits, and implement better tracking systems.⁹⁸

Investments in testing backlogged rape kits have been substantial. According to the Congressional Research Service, between fiscal years 2016 and 2021, two key pieces of federal legislation, the Debbie Smith DNA Backlog Grant Program and the Sexual Assault Kit Initiative, authorized \$686 million and \$281.5 million, respectively, to address rape kit backlogs.⁹⁹ In addition, the Manhattan District Attorney's Office made \$38 million available nationally to test backlogged rape kits.¹⁰⁰ Given that some jurisdictions had tens of thousands of untested kits, a detailed audit of the case characteristics and outcomes of all untested kits was often not feasible. Instead, some jurisdictions partnered with researchers to conduct an audit of a smaller subset of the untested kits.

In this section, I review the outcomes of the detailed audits for three of the first jurisdictions that received federal funding (Los Angeles, Houston, and

Detroit) as well as the aggregated outcomes of thirty-two jurisdictions across twenty states funded by the Manhattan District Attorney's Office. There are certainly more jurisdictions that received funding to clear rape kit backlogs than I am able to discuss here. Therefore, I would like to emphasize that this section is not an exhaustive review of all funded studies. Instead, I use these four studies to illustrate what research on rape kit backlogs can suggest about the likelihood of suspect DNA recovery during medical forensic examination.

As noted above, a key outcome of these grants is to estimate how many backlogged kits contain the DNA of a suspect and/or serial offender. There are four basic steps in this process. First, forensic crime labs must determine if an untested kit contains biological specimens with potentially probative value. Second, if there are biological specimens, then crime labs must determine if they contain foreign DNA (i.e., DNA not matching the victim's) that can be used to develop a DNA profile. Third, if a DNA profile can be developed, then the crime lab must determine if it meets the quality requirements and eligibility criteria for upload to CODIS.¹⁰¹ Fourth, if a CODIS-eligible DNA profile can be produced, then the profile can be uploaded to CODIS to see if there is a match to an existing profile. If there is a match, it may be to someone already registered in CODIS (e.g., those arrested or convicted of crimes) or to DNA found at another crime scene that has not yet been linked to a particular individual. If the DNA profile generated from the kit matches the DNA profile of someone already registered in CODIS who has been arrested or convicted of a sex crime, then a kit may have identified a serial sex offender. In this way, a match in CODIS becomes a proxy indicator for whether a backlogged kit contains suspect DNA or can identify a serial sex offender.

Because getting a CODIS hit is contingent on being able to produce a CODIS-eligible DNA profile, some studies report conditional rates for the number of kits that get a CODIS hit. A *conditional rate* is calculated based on the number of kits that produce a CODIS-eligible DNA profile, *not* all untested kits included in the study. This means that the denominator is restricted to the number of kits that produced a CODIS-eligible DNA profile. Since a key outcome of these studies is whether untested kits produce CODIS hits, the CODIS hit rate will appear higher, and therefore more favorable, if the denominator is restricted only to those kits that produced a CODIS-eligible DNA profile in the first place. This is a common and legitimate way of reporting the percentage of kits that produce a CODIS hit. As I discuss below, I have chosen to take a different approach.¹⁰²

In this chapter, I report unconditional rates in order to demonstrate that CODIS hit rates are somewhat low. An *unconditional rate* is calculated based on all untested kits included in the study sample; it is *not* restricted only to kits that produce a CODIS-eligible DNA profile. This means that the denominator includes all kits, whether or not they contain biological specimens or foreign DNA. To put it another way, the unconditional rate accounts for the fact that many kits do not contain biological specimens and/or do not produce a CODIS-eligible DNA profile. While it would be useful to know how many kits contain any biological evidence that could then be tested for DNA, not all jurisdictions have reported this indicator; instead, the closest proxy to presence/absence of suspect DNA is whether or not the kit had a foreign DNA sample that generated a DNA profile that met the criteria for upload to CODIS, or what is sometimes referred to as a *CODIS yield rate*. Thus, for my purposes, the unconditional CODIS yield rate is the best proxy indicator I have found for estimating the likelihood that rape kits contain any suspect DNA.

Table 2 presents the *unconditional CODIS yield rates* and *unconditional CODIS hit rates* for the three jurisdictions that received federal funding (Los Angeles, Houston, Detroit) and the aggregate unconditional CODIS yield rate across all thirty-two jurisdictions funded by the Manhattan District Attorney's Office. As noted above, some of these studies did not report how many kits had any biological evidence available to be tested for DNA (or, of those with biological evidence available, how many produced a DNA profile), so I have omitted this crucial indicator from the table. However, if available, this information could help determine the likelihood that any biological specimens would be recovered during forensic examination.¹⁰³ Taken together, approximately one-third to just under one-half of the tested kits produced a CODIS-eligible DNA profile. Approximately one-fifth to one-quarter of all tested kits from the three studies conducted in Los Angeles, Houston, and Detroit produced a CODIS hit.¹⁰⁴ Some of these studies did not report the time delay between the assault and the examination, so it is difficult to know if the CODIS yield rate would be higher if the analysis was restricted to kits collected within twenty-four to forty-eight hours of the assault.¹⁰⁵ Nurse examiners have long emphasized that, based on clinical experience, the likelihood of biological specimen recovery decreases sharply after this narrow window passes. Aside from the total number of potential samples in a kit that are tested, it is not known what factors influence the CODIS yield rate.¹⁰⁶ According to the studies in Los Angeles and Houston

TABLE 2. Unconditional CODIS yield and hit rates among backlogged kits in four studies¹

Citation	Location	Number of backlogged kits in study sample	Unconditional CODIS yield rate ²	Unconditional CODIS hit rate ³
Peterson et al. (2012)	LA	1,948	699 of 1,948 (35.9%)	347 of 1,948 (17.8%)
Wells et al. (2019)	Houston	491	213 of 491 (43.3%)	104 of 491 (21.2%)
Campbell et al. (2018)	Detroit ⁴	894	419 of 894 (46.9%)	259 of 894 (29.0%)
Office of Manhattan District Attorney (2020)	32 jurisdictions across 20 states	55,205	25,109 of 55,205 (45.5%) ⁵	Not reported separately ⁵

¹ The sampling designs vary across studies. Each step is conditional on the step before it (e.g., there must be a CODIS-eligible DNA profile in order to be able to test for a match in CODIS). I report *unconditional* CODIS yield and hit rates in this table (i.e., the denominator in both columns is the total number of backlogged kits); the numerators are (1) the number of backlogged kits that generated a CODIS-eligible DNA profile, and (2) the number of backlogged kits that produced a CODIS hit. Note: The number of backlogged kits with biological specimens available to be tested for DNA is not consistently reported, so I have omitted this indicator from the table (a step that precedes determining if biological specimens generate a CODIS-eligible DNA profile).

² Number of kits with a CODIS-eligible DNA profile.

³ Number of kits with a CODIS hit.

⁴ Combined sample of stranger and non-stranger cases.

⁵ In the report, the denominator changes from the total number of backlogged kits (55,205) to the number of CODIS-eligible profiles as of September 2019 (25,109) to the number of CODIS-eligible profiles that had actually been uploaded to CODIS as of September 2019 (22,494); the number of *kits* with CODIS hits is not reported separately from the number of *CODIS-eligible profiles* with a CODIS hit; see Office of Manhattan District Attorney, *Test Every Kit*, 18. As of September 2019, 25,109 kits had produced a CODIS-eligible profile. However, of these eligible profiles, only 22,494 had been entered into CODIS. Of the 22,494 profiles entered into CODIS, there were 11,384 CODIS hits. Assuming that each CODIS hit represents one kit, then 11,384 of 55,205 kits (20.6%) had produced a CODIS hit as of September 2019. Note: The number of kits with CODIS hits might be higher after all CODIS-eligible profiles are entered into CODIS.

that reported subsequent arrest or conviction rates after a CODIS hit was made, very few (if any) cases resulted in either arrest or conviction.¹⁰⁷ The Manhattan District Attorney's Office reported 251 arrests, 271 prosecutions, and 105 convictions out of a total of 55,252 kits sent for testing across thirty-two jurisdictions.¹⁰⁸

While these studies suggest that the number of kits with a CODIS hit is not insignificant, the somewhat low percentage overall presents a rather

sober picture of the likelihood that untested kits contain suspect DNA or can potentially identify an unknown assailant. In addition, basic statistics on CODIS yield and hit rates cannot answer the question of whether a CODIS hit revealed or simply confirmed a suspect's identity; some of the hits confirm the identity of a known suspect or one who was already convicted of the crime in question based on other evidence. In addition, while the Manhattan District Attorney's Office reported the highest number of subsequent arrests and convictions among the studies that I reviewed above, the number of kits that led to subsequent criminal legal action represents a very small percentage of all kits tested.

One question that has arisen is whether jurisdictions should prioritize testing backlogged rape kits for cases in which the suspect is unknown. Michigan State University psychology professor Rebecca Campbell co-lead the federal grant in Detroit, Michigan, and assessed CODIS hit rates for a subset of stranger and non-stranger cases.¹⁰⁹ The research team identified untested kits from 445 stranger cases and 449 non-stranger cases selected through purposive sampling. Of the combined total of 894 untested kits, 419 yielded a CODIS-eligible DNA profile (46.9%) and 259 produced a CODIS hit (29.0%). While the number of kits to produce a CODIS hit was somewhat low, the study determined that 69 of the 259 cases with a CODIS hit matched another sexual assault case, suggesting that testing all kits in police custody could identify serial offenders. The CODIS hit rates for stranger and non-stranger cases were somewhat similar (stranger: 156 of 445 kits, or 35.1%; non-stranger: 103 of 449 kits, or 23.0%); the authors argued these results justified a universal testing policy regardless of victim-offender relationship.¹¹⁰

Amidst the focus on recovering suspect DNA, many ethical concerns have arisen surrounding victim notification, the expiration of statutes of limitations, and the fact that very few cases proceed through the criminal legal system even if there is a CODIS hit. The cases in question may be several years to several decades old. It can be painful and traumatizing once more for victims to find out that the kit was not tested at the time of the initial report and, if the statute of limitations has expired, that no further action could be taken even if the kit produced new evidence. There is also the problem that cases may have already been adjudicated through plea bargains or convictions in court without the evidence in the kit. In cases with a known suspect, the CODIS hit may only confirm the suspect's identity, but it may not provide any additional probative evidence. There is also the question of uploading suspect DNA to CODIS when the individual may not have been arrested

or convicted of a crime. This raises significant privacy concerns that remain largely unaddressed by the research on CODIS yield and hit rates among samples of backlogged kits.

IMPLICATIONS OF THE KNOWLEDGE PROBLEM OF RAPE KITS AND INJURY DETECTION TECHNIQUES

In one sense, advocacy for routine administration of rape kits and the broader medical forensic exam was a success. The rape kit and its attendant protocols and procedures have shifted from the margins toward the center of health care responses to sexual violence. In another sense, although nurses got the tools for which they were advocating, they did not work the way that they thought they would. Nurses discovered the tools' limitations by using them. The limits of evidence could not have been known until rape kits and the broader medical forensic exam for sexual assault were at least partially institutionalized and administered more routinely (albeit not necessarily analyzed or kept out of the backlog). In this way, institutional reforms have had highly contingent, path-dependent consequences that have threatened to undermine the initial reform agenda that led to their enactment in the first place.

As I have demonstrated in this chapter, the frequent ambiguity and absence of evidence may discredit victims in court, what I term the probative paradox. In addition, continuing advocacy for rape kits and their testing, despite their limitations in producing probative evidence, may reinforce expectations that “credible” cases will have evidence available, thereby reinforcing narrow, historical legal definitions of forcible rape. In this sense, rape kits and injury detection techniques may risk undermining survivors' own subjective experience of harm to the detriment of their well-being.

Ignoring the limitations of forensic evidence does not serve the best interests of survivors. Rape kits and injury detection techniques are not only very often the wrong tools for the job,¹¹¹ but they also can prompt us to ask the wrong questions. Based on several decades of learning in this field, there is reason to believe that there will rarely be incontrovertible or incriminating evidence to prove lack of consent in the vast majority of cases.

There are risks in exposing the limitations of the exam in generating clinical and DNA evidence for fear of jeopardizing the institutional reforms from which it arose. As I discussed in chapter 1, evidence collection has become

part of the current standard of care. But the limitations of evidence prompt crucial questions: If we were to take away evidence collection, would we be able to retain specialized medical care? If we were to take away evidence collection, would we foreclose the possibility of prosecution and conviction? Is there therapeutic value in evidence collection for patient well-being, even if the vast majority of cases do not proceed to court? Still, conclusive evidence may always be elusive because it is not possible or ethical to employ experimental research designs to determine the likelihood of clinical findings that may result from different acts of violence. In this respect, it is not unlike other health conditions with complex disease etiologies, such as testing the links between cumulative chemical exposures and elevated breast cancer rates.

The knowledge problem of rape kits and injury detection techniques started to become more widely acknowledged in the United States beginning in the 2000s. However, advocacy for the new standard of care to be endorsed internationally by the World Health Organization and the United Nations High Commissioner for Refugees was already underway, which led to adoption of international guidelines in the early 2000s. These codified the new approach to rape nurses had helped institutionalize. In fact, nursing guidelines provided a model for the new international standards, including the recommendation that health care providers simultaneously deliver medical care and collect evidence for use in court. In the next chapter, I demonstrate how nursing guidelines informed international standards, which enabled the rape kit assemblage to travel to settings of armed conflict. The problems of evidence that I have described in this chapter would later become more apparent in humanitarian medicine, but only after these models of care had been endorsed for use in conflict zones.

PART II

*Legal Mobilization
in Humanitarian Medicine*

Prologue to Part II

IN PART II, I discuss a process of legal mobilization in humanitarian medicine through the work of international medical aid organizations. I first illustrate how practitioner-activists in global and women's health advocated for the first guidelines published by WHO and UNHCR on post-rape care for use in humanitarian emergencies. They employed one of the strategies of US nurses: creating new standards as a pathway to rights. I show how US Sexual Assault Nurse Examiner guidelines provided a model for articulating what was owed to survivors in humanitarian medicine. New international guidelines codified the rape kit assemblage as the best practice standard of care, making the assemblage a traveling technology of care and a technology of governance and law. In the process, practitioner-activists expanded a human right to health to include not only access to health care via post-rape therapeutics but also documentation of harm via issuance of medical certificates to patients. However, the contradictions baked into the rape kit assemblage, which I discussed in part I, were also reproduced in these international guidelines—contradictions that were only exacerbated in settings in which legal, health care, and state infrastructures of all kinds were weak or nonexistent.

I discuss the realities of implementing these new international standards through the work of Médecins Sans Frontières (MSF, or Doctors Without Borders). Practitioner-activists within MSF, some of whom were involved in developing the first WHO and UNHCR guidelines on post-rape care, advocated for the organization to address sexual violence, using many of the same strategies that US nurses had employed: creating new organizational guidelines; expanding the remit of humanitarian aid workers to include not only immediate lifesaving medical care but also documentation of bodily injury and issuance of medical certificates; and engaging in knowledge production

by publishing reports and academic articles on the number of patients disclosing rape to MSF staff and receiving post-rape care. MSF's publications reflect the organization's commitment to what it calls *témoignage*—speaking out to call attention to human rights violations that its staff witness.

However, MSF's experiences suggest that the knowledge problem of the rape kit assemblage and the problem of dual obligations, discussed in part I, persist—and are amplified—in humanitarian settings. To illustrate these tensions, I discuss three historical case studies of MSF's work to provide documentary evidence of sexual violence: the Republic of Congo (or Congo-Brazzaville) from 1998 to 2000; the Darfur region of Sudan from 2003 to 2005; and the eastern region of the Democratic Republic of Congo (DRC, or Congo-Kinshasa) from 2002 to 2014. Both recognizing and seeking to counter the unintended discrediting effect that absent findings could have on survivors, MSF has included a statement on its medical certificates indicating, in essence, that absence of evidence does not mean absence of crime. That the organization saw the need for such a caveat demonstrates an unintended consequence of the diffusion of these techniques, even in settings where their institutionalization is shallow or relatively weak. Just as “biomedical things” travel, so too do the epistemic assumptions and normative expectations associated with them—in this case, the expectation that physical evidence is—or should be—available if a survivor's account is to be judged credible.

*Sexual Violence as a Problem
of Global Health Governance*

BY THE 1990s, hospitals across the United States had adopted the new standard of care represented by nursing protocols in growing numbers. For many women's rights activists, this shift appeared to be a big victory; it also helps explain why rape kit protocols started to be discussed in international organizations, where problems relating to violence against women were becoming a focal point of global advocacy work.¹ Activists pressured international organizations to create new clinical standards for post-rape care. This advocacy provided the broader context in which nursing protocols would become available as models for advancing institutional reform through standards creation by United Nations agencies.

In response to global women's rights activism, the World Health Organization (WHO) and the United Nations High Commissioner for Refugees (UNHCR) created the first international clinical guidelines on sexual violence in the early 2000s. Importantly, the first Sexual Assault Nurse Examiner (SANE) guidelines authored by American nurse Linda Ledray in 1999 were cited, and served to an extent as a model, within the first WHO (2003) and WHO-UNHCR (2002, 2004) guidelines. While nonbinding, these recommendations established best practice guidance and specified the minimally necessary services required to provide clinical care and, where feasible, collect evidence for use in court.

In what follows, I describe how the rape kit assemblage became a transnational object as rape itself was defined as a global legal problem and a global health problem by women's rights activists in the 1990s. I demonstrate how clinical nursing guidelines informed the development of two landmark international guidelines: the first WHO guidelines on medical forensic exams for sexual assault for use in low- and middle-income countries,² and the first

WHO and UNHCR clinical standards on post-rape medical care for use with refugees and the internally displaced in humanitarian medicine.³ These two sets of clinical guidelines were developed in parallel by different groups of experts. However, they both drew on the US nursing guidelines to articulate what constituted minimum standards of care for survivors of sexual violence. Tracing these links across guidelines shows how the reforms, which first became a successful rights project in the United States, then traveled as a rights project to the international arena. In this way, practitioner-activists in global and women's health not only drew on US nursing guidelines as a model for post-rape care, but also employed one of the same strategies for reform: the promulgation of new standards as a means of creating new health care entitlements for survivors globally, including within humanitarian medicine.

Through this process, however, the rape kit assemblage and its associated rights project were necessarily reconfigured, and the entities to which advocates and activists had to orient themselves shifted, from the state and medical and legal systems in the United States to transnational regulatory and humanitarian aid organizations. Retaining rights-based recommendations became more complicated: Transnational regulators at WHO wanted recommendations to be evidence-based, but such evidence was much more difficult to establish transnationally, let alone in the context of humanitarian emergencies. I describe the evolution of WHO guidance documents over time, demonstrating how a shift in how WHO assessed recommendations posed challenges to maintaining the activist commitments reflected in the first guidelines. I conclude by discussing how international guidelines further codified the linking of therapeutics and evidence collection reflected in nursing protocols, which has in turn amplified the problem of dual obligations for health care practitioners in humanitarian emergencies. These tensions are exemplified by the experiences of Médecins Sans Frontières (MSF, or Doctors Without Borders), which I discuss in detail in chapter 4.

SEXUAL VIOLENCE, MASS RAPE, AND WOMEN'S HEALTH BECOME GLOBAL PROBLEMS

In the 1990s, sexual violence was increasingly perceived as both a global legal problem and a global health problem. On the legal side, the United Nations Decade for Women (1975–1985) had facilitated the formation of transnational networks of women's rights activists.⁴ At the ten-year follow-up

conference in Beijing in 1995, participants drew international attention to their view that violence against women should be seen as a violation of their human rights.⁵ The Beijing Platform for Action put sexual violence firmly on the women's rights agenda and set the stage for international organizations to adopt new standards for post-rape care.⁶

At the same time, women's health activists began to argue that sexual violence ought to be considered a core component of the newly designated field of sexual and reproductive health. In situations of rape, they pointed out, women could experience unwanted pregnancy and also be exposed to sexually transmitted infections, including HIV. Prior women's rights activism had led the United Nations to recognize women's right to family planning in 1979 and to safe maternity and freedom from gender-based violence in 1993.⁷ However, women's health activists achieved their first success in codifying a more holistic conceptualization of sexual and reproductive health as a human right in the landmark "Programme of Action" developed from the 1994 International Conference on Population and Development (ICPD).⁸

Importantly, the ICPD spurred a range of United Nations agencies to develop guidelines for providing reproductive health care services in humanitarian emergencies. This ultimately led to the Minimum Initial Service Package (MISP) for Reproductive Health. This was first proposed in 1995 at the United Nations Inter-Agency Symposium on Reproductive Health in Refugee Situations and then elaborated in the first *Inter-Agency Field Manual on Reproductive Health in Refugee Situations* the following year as well as in later editions.⁹ The MISP included post-rape care among the essential services that humanitarian organizations must provide in the early stages of emergency response.¹⁰ To facilitate implementation of the MISP, the United Nations Population Fund (UNFPA) began distributing "reproductive health kits" that included a designated box of drugs and supplies for post-rape care.¹¹

International medical associations also took up the problem of sexual violence. Soon after the Beijing conference in 1995, the International Federation of Gynecology and Obstetrics (also known by its French name, *Fédération Internationale de Gynécologie et d'Obstétrique*, or FIGO) issued a declaration at the XV FIGO World Congress in 1997, calling on obstetricians and gynecologists to address sexual violence and treat it as a central part of their work in reproductive health. It specifically called on physicians to voluntarily participate in legal processes to support survivors of sexual violence.¹²

This rise in transnational concern about violence against women in the 1990s coincided with a “discursive explosion” surrounding rape in war; the upsurge of dialogue was driven by reports of mass rape in Bosnia during the conflict in the former Yugoslavia (1992–1995) and the 1994 genocide in Rwanda.¹³ This discursive explosion was arguably the second of its kind, with the first occurring in the wake of World War II. Controversies surrounding the rape of German civilian women by Russian soldiers and the rape of Russian civilian women by German soldiers assumed a highly symbolic place in competing historical renderings of the war and the atrocities committed by enemy soldiers on both sides.¹⁴ The 1990s advocacy led to critique of the international military tribunals established after World War II for failing to prosecute crimes of sexual violence with the same attention and gravity paid to other war crimes.¹⁵

As more people began to talk about the ways rape functioned within war strategies, new international tribunals were convened to prosecute high-level officials who were charged with war crimes and crimes of genocide. The International Criminal Tribunals for the former Yugoslavia (ICTY) and Rwanda (ICTR) were launched in 1993 and 1995, respectively, and were the first held since the Nuremberg tribunals following the Second World War. Women’s rights activists successfully pressured officials at the ICTY and ICTR to include rape among the charges.¹⁶ While rape had long been recognized as a feature of armed conflict, with prohibitions appearing in some of the earliest formulations of the laws of war, these specialized international courts were the first to prosecute cases that established rape not just as a war crime, but as a crime against humanity and an instrument of genocide within international criminal law.¹⁷ The ICTY and ICTR both informed the work of later international specialized and hybrid courts, including the permanent International Criminal Court (ICC) established in 1998.¹⁸

After about a decade of activists pushing the international criminal tribunals to prosecute rape as a war crime, the establishment of the ICC in 1998 as a “court of last resort” made the future of this work uncertain at best. The ICC’s founding statute, known as the Rome Statute, enshrined among its member states the “principle of complementarity”; this meant that the ICC only had jurisdiction, and could hear a case, when a national government was unable or unwilling to prosecute.¹⁹ The problem was related to the national versus international jurisdiction. If prosecutions were to continue, the vast majority of potential cases would have to stand trial in local courts, not international ones. Therefore, some activists retained their emphasis on

prosecution to end impunity for rape as a war crime, but others shifted their advocacy to shoring up evidence collection to meet requirements of domestic (national) penal codes that largely required corroboration in the form of physical evidence and, specifically, medical forensic evidence. In short, they focused on shifting the rape kit assemblage and its rights project to the transnational context.

TRANSLATING REFORMS IN US EMERGENCY MEDICINE INTO NEW GLOBAL STANDARDS

As sexual violence came to be understood in the 1990s as a global problem that necessitated both medical healing and legal justice, activists put pressure on WHO to create international guidelines on medical forensic exams for sexual assault. The US-based human rights organization Human Rights Watch played an instrumental role in translating reforms in US emergency medicine for inclusion in the new WHO standards. Shortly after the ten-year follow-up conference to the United Nations Decade for Women in Beijing in 1995, an American lawyer in the Human Rights Watch women's rights division, Widney Brown, began advocating that WHO publish new global guidelines on sexual assault medical forensic exams and their use. Prior to her appointment at Human Rights Watch, Brown had worked for the rape crisis center New York Women Against Rape, where she advocated for rape law reforms in the United States before working internationally.²⁰ It took another seven years before her recommendation became a reality, prompted in no small measure by shifts within United Nations humanitarian and development work and advocacy efforts connecting reproductive health and human rights. All these influences explain the content of the WHO's 2003 landmark text, *Guidelines for Medico-Legal Care for Victims of Sexual Violence*.

In fact, the introduction to the text credited FIGO and Human Rights Watch with inspiring WHO to convene its expert working group on the subject in the first place. Widney Brown wrote a background paper expressly for WHO in 2001 that provided the organization with a crucial rationale for why standards were urgently needed.²¹ Brown's background paper catalogued the different kinds of abuses women suffered at the hands of physicians (employed as state forensic examiners) and as a consequence of idiosyncratic sex offense laws worldwide. Using several case studies from

different countries, she demonstrated the need for reform.²² Problems were especially egregious when it came to collecting medical evidence of sexual violence, including forced virginity tests and imprisonment of women for crimes of adultery and sex outside of marriage.

These practices derived from older paradigms within forensic medicine that focused on the hymen as the arbiter of virginity, a practice that persists in some present-day state forensic medicine bureaucracies and institutes of legal medicine. Where domestic (national) penal codes criminalized any sex outside of marriage (e.g., not only rape but also adultery), a woman could face prosecution under sex offense laws if she “failed” a virginity test or could not prove lack of consent. One human rights activist involved in this advocacy, whom I will call Leslie, recalled how virginity tests could be treated as a form of forensic evidence and used against women who were victims of sexual assault:

We were working in countries where the very filing of a claim of sexual violence could lead to women being imprisoned for adultery or fornication. . . . Women were putting themselves at huge risk of themselves being criminalized if they made any allegations of sexual violence. . . . How do we deconstruct the idea that virginity tests are a legitimate forensic measure? And how do we deconstruct how virginity tests can be used to either dismiss claims of sexual violence or criminalize women? . . . Given this utter misuse and abuse of forensic standards, can we come up with international standards of what forensic evidence *should* be relevant in cases of sexual violence? . . . So [we] worked with WHO. And it was a very long process. And they eventually convened a meeting. . . . It was a group of doctors from all around the world. The approach was to try to undermine the fact that women were being subjected to virginity tests and being incarcerated because of failing virginity tests. And virginity tests are utterly illegitimate by any standard. . . . You can't imprison women because they're raped.²³

Brown's background paper explicitly questioned the evidence base for virginity tests and other commonly accepted practices in clinical forensic medicine.²⁴ The paper made an urgent call for reform through the establishment of new standards that would curtail abusive practices and provide evidence-based guidance on how to conduct forensic examinations. One of the protocols Brown cited had been published by nurse Linda Ledray,²⁵ whose Sexual Assault Resource Service protocol, a precursor to her 1999 SANE guidelines, served as a basis for Brown's practice recommendations.

Brown's 2001 background paper and FIGO's call to action prompted the WHO lead on women's and reproductive health, Mexican physician Claudia

García-Moreno, to convene an expert working group of forensic examiners to develop the guidelines. García-Moreno led the development of guidelines on gender-based violence at WHO since their inception in the early 2000s; this comprised a career at WHO spanning more than two decades. In my informal conversations with activists and practitioners in the field, García-Moreno was once referred to as the “guru” on gender-based violence at WHO and was known as a key advocate for institutional change within an organization with a reputation for being conservative and male dominated.

The convening of experts to develop guidelines for forensic examination signaled a departure from WHO’s prior emphasis on communicable and noncommunicable disease. One forensic examiner involved in the process, whom I will call Thomas, explained,

When I first started in the field [before 2001] . . . I don’t think WHO had interpersonal violence, sexual gender-based violence, on their radar at all. I mean, they had some much bigger issues to fry, particularly at the peak of the HIV epidemic, malaria, TB, and other noncommunicable diseases. They didn’t see this as a priority. Turn that around a little bit [in the years since and] it’s certainly a major priority across all continents [by now].²⁶

As Thomas emphasized, the shift to address interpersonal violence as a health issue was new for WHO. Historically, WHO had focused on addressing primary care and infectious diseases predominantly affecting low-income countries. To develop standards for forensic examination following sexual assault, WHO had to work with physicians who had relevant expertise.

Australian physician David Wells, a forensic examiner with the Victorian Institute of Forensic Medicine in Australia, was named as lead author of the general medico-legal guidelines. Wells spent much of his career developing and professionalizing the specialty of clinical forensic medicine—the examination of living patients—as opposed to the longer-standing specialty of forensic pathology, or examination of the dead. Over the course of his career, Wells questioned the evidence base of many aspects of clinical diagnosis and interpretation in sexual assault examinations.²⁷ He devoted much of his career to training medical examiners, police, and judges on how to interpret clinical evidence.

The new guidelines in essence embraced the legal and medical principles that had been set in the United States by the late 1990s and incorporated them into WHO’s recommended best practice. This meant balancing the health needs of victims with collection of evidence required by courts. In particular,

Annex 3 of the WHO *Guidelines for Medico-Legal Care for Victims of Sexual Violence* named the joint American College of Emergency Physicians and International Association of Forensic Nurses training program as a model for health workers seeking competency in providing health services to victims of sexual assault.²⁸ Annex 3 included key reforms for which nurses advocated: training in the multidisciplinary team concept (collaboration between health workers, law enforcement, and rape crisis agencies); knowledge of Rape Trauma Syndrome and post-traumatic stress disorder; competency in sexual assault forensic examination; and a holistic approach to patient care that involved crisis intervention, treatment of sexually transmitted infections, pregnancy screening and prophylaxis (i.e., emergency contraception), and referrals to ongoing support services. The document cited the 1999 SANE guidelines as a model for how to monitor and evaluate the quality of post-rape care.²⁹

*Adapting standards for use with refugees
and internally displaced persons*

The guidelines applying to refugees and internally displaced persons were developed at the same time as the WHO 2003 document by a separate working group of experts in humanitarian aid. The first clinical guidelines for this were titled *Clinical Management of Survivors of Rape: A Guide to the Development of Protocols for Use in Refugee and Internally Displaced Person Situations*.³⁰ Jointly published by WHO and UNHCR, these guidelines attempted to ensure the same rights and standard of care for refugees and the internally displaced in humanitarian medicine. The first edition for field testing was published in 2002, followed by the revised edition in 2004.³¹ Like the WHO general medico-legal guidelines, the document endorsed forensic evidence collection and specialized medical care as best practice.

These step-by-step guidelines on health services were not the first guidance document on sexual violence that UNHCR issued. Its first guidance document had been published in 1995 and focused on gender-based violence broadly, with only a brief section on support, medical care, and reporting requirements in countries hosting refugees.³² The document mentioned administration of a medical exam and, if forensic pathology laboratories existed, collection of material and biological specimens. These are often requirements of national jurisdictions and were summarized in three pages on the medical response to sexual and gender-based violence. The fact

that the initial 1995 UNHCR guidance document anticipated domestic (national) penal codes and their evidentiary requirements reflected the obligation of humanitarian aid organizations to comply with host country laws. Therefore, arranging for medical forensic exams in compliance with local laws preceded notions of rights to medico-legal documentation as a matter of upholding women's human rights, as was later enumerated in the WHO-UNHCR guidance.

While the 1995 UNHCR guidance document advised protection, medical care, and reporting to local authorities, it was not specific to health care providers. It did not include detailed protocols or sample forms. In practice, humanitarian aid workers needed more training and specific practice recommendations.³³ It was in response to this need for more detailed instructions that UNHCR collaborated with WHO to convene an expert working group in 2001 that would create the 2002 WHO-UNHCR guidelines specifically for health workers.

Two of the lead contributors to the WHO-UNHCR guidelines were Dutch physician Wilma Doedens and American nurse Kate Burns.³⁴ Doedens spent most of her career at the United Nations Population Fund (UNFPA) developing standards and implementation tools for sexual and reproductive health care in humanitarian settings; these tools included the reproductive health kit mentioned above. Kate Burns served as a policy advisor on gender equity and gender-based violence for UNHCR and other humanitarian aid agencies and contributed to much of the initial policy guidance in the field. Much like the nurses working in hospital emergency departments in the United States, these women acted as practitioner-activists to translate the demands of feminist anti-rape and women's health activists into new clinical standards for sexual and reproductive health in humanitarian medicine.

To develop this detailed guidance, the authors tasked with drafting the WHO-UNHCR guidelines sought input from both experts and activists. One policy expert involved in the process, whom I will call Helen, described efforts to seek a broad range of expertise that could inform the guidelines:

Around 2000, 2002, is when we developed the first *Clinical Management of Rape Survivors* guideline with WHO, UNHCR, and UNFPA. At the time there was some MSF [Médecins Sans Frontières, or Doctors Without Borders] support, but we got a lot of information also from rape crisis centers around the world. South Africa particularly had some information. And in the US, we got a lot of information from the SANE [Sexual Assault Nurse Examiner]

nurse practitioner guideline[s]. . . . And obviously there were different experts who were giving information on clinical, on medical certificates, and things like that. This is how that clinical management thing started.³⁵

As previously noted, the SANE guidelines had been published in 1999 shortly before this process began. The working group developing the first WHO-UNHCR clinical management of rape (also referred to as CMR) guidelines drew upon the newly available SANE guidelines for help with conceptualizing and articulating minimum standards for clinical care. In particular, the SANE guidelines informed the drafting of four major elements: how to provide medical care, how to talk to survivors, which terminology to use, and how to conduct the forensic examinations.³⁶ Like the 2003 WHO general medico-legal guidelines, the final 2004 WHO-UNHCR document cited the SANE guidelines as a model in the list of resources. It also cited Widney Brown's 2001 briefing paper for WHO to describe basic evidentiary requirements of rape laws globally. The WHO-UNHCR protocol endorsed a new way of thinking in the field; first responders were to consider the needs of survivors and the trauma associated with sexual assault, not just the procedural aspects of evidence collection or reporting to the police.

Notably, the guidelines for use in humanitarian medicine recommended collection of forensic evidence as among the “essential components” of medical care after rape, as long as capacity to conduct forensic analysis existed.³⁷ It is important to emphasize that the recommendations were the same in humanitarian medicine as in high-resource settings. This could include more rudimentary forms of forensic evidence that were available prior to the advent of DNA testing. Pictograms of human anatomy made documentation of bodily injuries on a form appear straightforward—a kind of mundane technology that any health worker could complete.

The authors were aware that, in practice, humanitarian settings often did not have adequate facilities or infrastructure to properly collect and store physical evidence or to conduct DNA analysis. Therefore, issuance of patient medical certificates could be more feasible than collection of biological specimens. In this way, medical certificates could serve as legal evidence in the absence of forensic crime labs or functioning legal systems.³⁸

Box 1 is a copy of the sample medical certificate included as Annex 8 in the 2004 WHO-UNHCR guidelines. Like a patient medical record or police form, the certificate recommended by the WHO-UNHCR guidelines could

**BOX 1. SAMPLE MEDICAL CERTIFICATE INCLUDED AS
ANNEX 8 OF WHO-UNHCR'S CLINICAL MANAGEMENT
OF RAPE SURVIVORS (2004)**

MEDICAL CERTIFICATE for an adult

I, the undersigned: (NAME, first name) -----

title: (Indicate the function) -----

on this date and time: (day-month-year, time) -----

certify having examined at his/her request Mr, Mrs, Miss: (NAME,
first name) -----

date of birth: (day, month, year) -----

address: (exact address of the person examined)

She/He declared that she/he was the victim of a sexual attack on:

(time, day, month, year) -----

at: (place) -----

by: (known or unknown person) -----

Ms, Mrs, Miss, Mr _____ **presents the following signs:**

General examination (behaviour: prostrate, excited, calm, afraid,
mute, crying, etc.)

Physical examination: (detailed description of lesions, the site,
extent, pre-existing or recent, severity)

(CONTINUED)

BOX 1. CONTINUED

Genital examination: (signs of recent or previous defloration, bruises, abrasions, tears, etc.)

Anal examination:

Other examinations carried out and samples taken:

Evaluation of the risk of pregnancy:

The absence of lesions should not lead to the conclusion that no sexual attack took place.

Certificate prepared on this day and handed over to the person concerned as proof of evidence.

Signature of the clinician

SOURCE: WHO and UNHCR, *Clinical Management* (2004), 57–58, <https://www.unhcr.org/media/clinical-management-rape-survivors-developing-protocols-use-refugees-and-internally-displaced>.

be used by a health worker to record a survivor's account and any injuries or other clinical findings. In the absence of physical evidence, the medical certificate could take on heightened importance in any subsequent legal proceedings. Annex 8 followed Annex 5, a sample medical history and examination form, and Annex 6, sample pictograms of male and female anatomy to mark injuries observed on the body.

The WHO-UNHCR guidelines were subsequently endorsed in the previously mentioned Minimum Initial Service Package (MISP) and included in UNFPA reproductive health kits for post-rape care.³⁹ Even if UNFPA kits were not available, the WHO-UNHCR guidelines provided sample treatment plans that could be used with available antibiotics, antiretrovirals, and emergency contraceptive pills, respectively, for prophylactic treatment of bacterial sexually transmitted infections (Annex 9), post-exposure prophylaxis (PEP) to prevent HIV infection (Annex 10), and emergency contraception (Annex 11).⁴⁰ In addition, the WHO-UNHCR guidelines recommended

providing information about abortion where it was legal. Notably, UNFPA did not provide medical certificates; only a sample was included in an annex to the WHO-UNHCR document.

Nearly two decades later, the WHO-UNHCR guidelines are still considered the standard of care.⁴¹ The core components were retained in the 2020 update, which I discuss in more detail below.⁴² Other recent United Nations guidance documents further endorse the multisectoral approach that calls for greater cooperation between health care and law enforcement when responding to sexual violence in domestic jurisdictions and refugee camps alike.⁴³ The new multidisciplinary approach to sexual violence that nurses helped introduce was adopted in the WHO-UNHCR guidelines. However, advocacy for nurses to act as independent examiners did not become a focus outside of the United States. In many parts of the world, only doctors can do the exams.

*Controversies surrounding
the new standard of care in humanitarian medicine*

Although WHO and UNHCR endorsed this new standard of care in 2004, both specialized medical care and forensic evidence collection were controversial in humanitarian contexts from the start. Critics within humanitarian aid organizations saw it as representing a potentially problematic sea change in two respects. First, they pointed out the perils of failing to observe medical neutrality. It is a long-standing principle of international law that humanitarian aid organizations and their medical personnel must treat any person in need, regardless of their affiliation; in return, parties to the conflict agree not to attack or interfere with their operations. Participating in criminal investigation, it was feared, could jeopardize access to populations who needed real assistance and could put the lives of relief staff and patients at risk.

Second, critics pointed to the issue of medical necessity. Medically necessary interventions historically were defined as the minimal measures needed to keep people alive, such as treatment of acute injuries (e.g., loss of limbs), control of infectious disease outbreaks, and basic nutrition support. But, as noted above, women's rights advocates began positioning women's reproductive health as an important component of minimally necessary health care services. In addition, the HIV pandemic made rape appear potentially life-threatening and therefore within the ambit of humanitarian medicine.⁴⁴

The core treatment plans for post-rape care were the subject of debate in the field. Objections to birth control and abortion on religious grounds impeded access to emergency contraception in some countries.⁴⁵ Prophylactic treatment of sexually transmitted infections could fail, but go undetected without follow-up care. Some experts questioned the evidence base for PEP because its efficacy was established after occupational exposure (e.g., needlestick injuries among health care workers in hospitals), not specifically after rape.⁴⁶ In addition, if patients discontinued the twenty-eight day PEP regimen before the last dose, prophylactic treatment could fail and lead to drug resistance.⁴⁷

Although post-rape care is still weakly institutionalized in humanitarian contexts, reformers have pushed for nearly two decades to provide best practice standard of care to women.⁴⁸ Their efforts led to increasing debate in the field about what was and was not within the mandate of humanitarian aid. At the very heart of these debates was whether or not post-rape care was, in fact, feasible or appropriate in these settings.

RETAINING RIGHTS-BASED RECOMMENDATIONS IN POST-RAPE CARE

As new standards for post-rape care were becoming increasingly codified into various guidelines, however, the rights-based framing of such reforms encountered new challenges. It was precisely their framing as a rights project that enabled reforms in post-rape care to travel from the United States to humanitarian settings. But it was this same framing that now came up against new criteria requiring that recommendations made by WHO be evidence-based—something much more difficult to establish transnationally, let alone for volatile contexts where research studies were often impossible. In this section, I explain how the linkage of therapeutic and evidentiary elements of post-rape care—rights-based recommendations—were retained despite new demands for clinical evidence to support them that often could not be met.

García-Moreno at WHO initiated updated guidance on responding to sexual violence in low- or middle-income countries in 2009, about six years after the initial publication of the WHO 2003 general medico-legal guidelines. The result was the 2013 WHO document titled *Responding to Intimate Partner Violence and Sexual Violence Against Women: WHO Clinical and Policy Guidelines*. This was not a direct update to the WHO 2003 medico-legal guidelines because it omitted detailed guidance on medical forensic

examination and instead only referred practitioners to the WHO 2003 document, which I discuss in more detail below. As noted in the title, the 2013 WHO document was explicitly limited to addressing the needs of only women and girls. This was a departure from the WHO 2003 and WHO-UNHCR 2004 guidance documents that, while focused on care for women, still addressed care for men and boys, although neither explicitly mentioned gender identity or sexual orientation of patients.

According to the document, the exclusion of men and boys was justified, in part, given the greater estimated prevalence rates of intimate partner and sexual violence among women and, in part, on the limited evidence base available for clinical interventions for men in general.⁴⁹ In contrast, the updated 2020 WHO and UNHCR guidelines (also coauthored with UNFPA) focused on women and girls, but acknowledged the needs of men and boys as well as “sexual and gender minorities.”⁵⁰ This owed, in part, to the fact that the WHO and UNHCR guidelines were considered “guidelines for how to develop guidelines” and not official guidelines as such; therefore, the authors could retain rights-based recommendations, such as “survivor-centred care,” based explicitly on upholding survivors’ rights and did not need to rate the available evidence base for each recommendation.⁵¹ As I will explain, however, although the WHO 2013 document was intended for general use (not solely humanitarian emergencies) and, therefore, had to comply with WHO requirements, the authors still drew on rights-based rationales, as well as precedents set by the first landmark guidelines, in order to retain many of the rights-based recommendations, such as “woman-centred care,” that had limited direct, clinical evidence available to support them.

After the initial landmark guidelines had been published in the early 2000s, WHO adopted a new system for rating the quality of available research evidence in 2007 that would form the basis for any recommendation endorsed by the organization; it was called GRADE (Grading of Recommendations Assessment, Development and Evaluation).⁵² The expert working group that García-Moreno convened followed the GRADE framework. The GRADE framework required the articulation of specific questions at the outset; each question would then need to be answered through an analysis of relevant research (if any).⁵³ Based on a number of criteria, including strength of the research design and relevance of the study population, each recommendation had to be ranked according to (1) the quality of the research evidence available to support it, and (2) the strength of the recommendation according to the expert working group.⁵⁴ The expert working group acknowledged that

national-level decision-makers would need to consider the particularities of their local contexts when deciding which recommendations to implement.

The first landmark guidelines (both WHO 2003 and WHO-UNHCR 2004) were developed before this new evidence rating system was established. The authors of the first guidance documents consulted existing research and professional literature, some of which was cited in a bibliography or reference list; however, the quality of the evidence cited is not specified. In the case of humanitarian settings, there was virtually no available research to consult, and the authors adapted existing standards and model programs developed outside of conflict settings for use in humanitarian emergencies. The available evidence base for specific recommendations, in other words, had not impeded the endorsement of rights-based reforms in the earlier WHO and WHO-UNHCR guidelines.

The new GRADE framework adopted in 2007, however, required the authors of the 2013 WHO guidelines to be explicit about whether there was existing clinical research to support each recommendation. Importantly, nearly all the recommendations related to clinical management of rape (referred to as “clinical care for survivors of sexual assault”) were based on preexisting guidelines, which were labeled as “indirect evidence.”⁵⁵ The emergency contraception guidance was based on WHO, FIGO, and American College of Obstetricians and Gynecologists (ACOG) guidelines for contraceptive use in obstetrics and gynecology. The PEP guidance was based on WHO and International Labor Organization (ILO) guidance for occupational exposures to HIV. The prophylactic treatment of STIs guidance was based in part on Centers for Disease Control and Prevention (CDC) guidelines for treatment of sexually transmitted diseases (regardless of patient population).

It is notable that the WHO 2013 guidelines omitted forensic examination, while also naming it as “a critical element of post-rape care for women who may want to pursue legal action.”⁵⁶ As part of clinical care for sexual assault, the document recommended that health care providers “take a complete history, recording events to determine what interventions are appropriate, and conduct a complete physical examination (head-to-toe including genitalia),” which may include recording forensic information.⁵⁷ This recommendation was based solely on the same recommendation made in the WHO 2003 general medico-legal guidelines and the WHO-UNHCR 2004 guidelines for humanitarian settings and its related training program.⁵⁸ The WHO 2013 document explicitly stated that it does not cover a “full

forensic examination.”⁵⁹ Instead, it referred readers to the first two landmark guidelines (WHO 2003 and WHO-UNHCR 2004), both of which were developed before the new evidence rating system was created and would not necessarily be considered evidence-based under the new criteria.⁶⁰

In short, the authors responded to the new GRADE framework by essentially citing the previous guidelines *as* evidence, thus employing a kind of circular referencing: The WHO 2013 document’s recommendation (#11) that health care providers take a patient history, record events, and conduct a head-to-toe physical examination cites prior guidance documents (WHO 2003 and WHO-UNHCR 2004) as indirect evidence, despite neither meeting the new criteria of being evidence-based under the new GRADE framework. But crucially, the recommendations were nonetheless accepted. In this way, the authors of the 2013 document essentially found a way to retain earlier recommendations that did not have specific clinical evidence available to support them. The rights project buoying the rape kit assemblage’s diffusion and adaptation to humanitarian settings survived.

Given the weak direct evidence base for many of the recommendations in the 2013 WHO document, the authors of the guidelines articulated other rationales to justify their clinical recommendations for women, including human rights principles (e.g., rights to information, respect, and dignity) and reliance on preexisting guidelines. For example, the first recommendation in the 2013 WHO document was the provision of “woman-centred care,” which, according to the GRADE framework, was labeled as a “strong” recommendation based on “indirect evidence,” which in this instance was preexisting WHO guidelines on “psychological first aid” developed for use in “community crisis situations.”⁶¹ Later in the document, the authors cited the United Nations Convention on the Elimination of All Forms of Discrimination against Women (CEDAW), first adopted in 1979, to support this recommendation:

Under human rights treaties that governments have signed, there is a responsibility to prevent, investigate and punish all forms of violence against women. . . . For instance, according to the United Nations Committee on the Elimination of all Forms of Discrimination against Women (CEDAW), States Parties to the CEDAW Convention should ensure the following (among other measures): women-centred care is offered in the form of acceptable health services—these are services that “are delivered in a way that ensures that a woman gives her fully informed consent, respects her dignity, guarantees her confidentiality and is sensitive to her needs and perspectives.”⁶²

This invocation of CEDAW framed woman-centered care as fundamental to upholding women's human rights, thereby making a rights-based argument, irrespective of the evidence available to support it.

In my conversations with experts in the field, I was surprised to learn that the guidelines for humanitarian settings were never endorsed as “official” WHO guidelines because the recommendations were not explicitly supported by clinical or research evidence. Instead the title of the very first version of the guidelines, published in 2002, carried this qualifier: “A Guide to the Development of Protocols for Use in Refugee and Internally Displaced Person Situations.”⁶³ In other words, the document was not an official set of guidelines, but rather, as noted above, a “guide” for developing guidelines. The same was true of the 2020 WHO-UNFPA-UNHCR update. This may sound like a question of semantics, but it has actually served an important purpose in practice: Some country governments have more readily engaged with this document (rather than the WHO 2003 or WHO 2013 guidelines) because it does not dictate what should be done. Rather, it serves as a starting point for local jurisdictions to develop their own standards.⁶⁴ It also had the benefit of facilitating an explicitly rights-based approach to providing what was referred to as “survivor-centred care” to all survivors.⁶⁵

THE PROBLEM OF DUAL OBLIGATIONS IN HUMANITARIAN MEDICINE

As convoluted and difficult as it may seem to trace the evolution of these guidelines and their semantic nuances over time, I have done so because this is part of what's entailed in “following” the rape kit assemblage as it travels globally and, in particular, how the evidentiary elements of the rape kit assemblage traveled alongside the therapeutic elements into humanitarian medicine. While implementation of international guidelines remains variable and highly contested, all available guidance has promoted the linking of therapeutics and evidence collection as best practice standard of care. Each of the above-mentioned guidance documents recommends that health care practitioners should simultaneously treat patients, record the patient's account of the assault, and document any clinical findings during a head-to-toe exam—even if the medical exam only involves documentation of injury and stops short of a full forensic exam. Even if a health care practitioner does not report the disclosure to law enforcement or the patient does not

file a police report, patient medical records can serve as evidence in court. However, in humanitarian emergency settings, the act of documentation alone can place patients and health care practitioners at risk of retaliation from parties to conflict.

The new international standards of care reproduced a fundamental tension, namely that health care practitioners could (and did) find themselves with divided loyalties or a dual obligation as they tried to provide both effective medical care to patients and robust evidence to lawyers.⁶⁶ As the rape kit assemblage traveled to conflict zones, this tension became even more acute as health care practitioners juggled their duty to serve patients' needs, including the edict to "do no harm" and protect patient confidentiality, with their duty to report clinical findings to third parties. Indeed, settings of armed conflict have made these tensions explicit, particularly when officials tasked with investigating international crimes of sexual violence may have been responsible for the crimes in question. But it bears repeating that this problem of dual obligations is not new, but only echoes that associated with documenting survivors' accounts and bodily injury (or lack thereof) in the United States. In this way, humanitarian settings only amplify, but do not invent, the problems with the rape kit assemblage as it travels.

In the next chapter, I turn to the ethical dilemmas that the medical humanitarian aid organization MSF has faced in navigating increasing pressures to collaborate with international courts and domestic criminal legal systems, even when state infrastructures are weak or subject to capture by parties to armed conflict. MSF has been a leader in providing post-rape care in conflict settings for nearly three decades. In particular, MSF's legal department has issued directives to all branches to routinely issue medical certificates to survivors of sexual violence for later use as documentary evidence in court proceedings. Their experiences suggest that the problem of dual obligations and the knowledge problem of rape kits and injury detection techniques, which I discussed in chapters 1 and 2, respectively, are present not only in high-resource settings like the United States, but also in settings of armed conflict.

*Médecins Sans Frontières Medico-Legal
Certificates for Sexual Violence*

IN THE EARLY 2000s, the World Health Organization (WHO) and United Nations High Commissioner for Refugees (UNHCR) endorsed the model of post-rape care articulated in the US Sexual Assault Nurse Examiner guidelines, making the rape kit assemblage a traveling technology of care and a technology of governance and law.¹ These international guidelines defined a human right to health for survivors of sexual violence to include not only access to health care via post-rape therapeutics, but also documentation of harm via evidence collection and issuance of medical certificates.² However, in practice, administration of post-rape therapeutics has become far more institutionalized than evidence collection in internationally designated humanitarian emergencies. For example, humanitarian aid organizations can procure the necessary drugs and supplies for post-rape care from the United Nations Population Fund through their prepackaged kit, the UNFPA Reproductive Health Kit 3 for post-rape treatment, discussed in the introduction. While the UNFPA kit includes a link to the WHO and UNHCR guidelines (which the UNFPA also endorsed as a coauthor in 2020), some humanitarian aid organizations have stopped short of collecting evidence and producing medical certificates. As discussed in chapter 3, if organizations issue medical certificates, they risk being perceived as taking sides in an armed conflict by facilitating prosecution of combatants, which can, in turn, be perceived as jeopardizing the organizations' neutrality, placing staff and patients at risk of retaliation by parties to the conflict. Recognizing these security risks, clinicians may face the problem of dual obligations if police or human rights investigators demand medical evidence without the permission of the patient.³

Médecins Sans Frontières (MSF, or Doctors Without Borders) is one of the most prominent medical humanitarian aid organizations to not only

provide post-rape therapeutics, but also issue patients medical certificates—or what the organization refers to as medico-legal certificates—as a core component of comprehensive clinical care for survivors of sexual violence. To my knowledge, it is the only major international medical humanitarian aid organization to routinely issue such certificates across most of its field operations.⁴ MSF’s work in this area spans nearly three decades, and its experiences offer important lessons for experts and practitioners about the possibilities and challenges of routine implementation of WHO and UNHCR clinical standards in humanitarian emergencies.

MSF has been a leader in developing clinical guidelines for use in low-resource settings and humanitarian emergencies. Current and former MSF staff, including physician Wilma Doedens and gender-based violence expert Françoise Duroch, contributed to the development of the first WHO and UNHCR international guidelines on clinical management of rape.⁵ Duroch later earned a PhD and has led the MSF Unité de Recherche sur les Enjeux et Pratiques Humanitaires (UREPH, or the Research Unit on Humanitarian Stakes and Practices) based in Geneva since 2018; in this role, she has conducted research on sexual violence in conflicts where MSF is present.

Today, MSF’s internal clinical protocols generally align with WHO and UNHCR recommendations.⁶ MSF treats survivors of sexual violence with post-rape therapeutics, including emergency contraception, antibiotics for sexually transmitted infections, post-exposure prophylaxis, or PEP, to prevent HIV transmission, and vaccination for tetanus and hepatitis B, and, where possible, may provide counseling for termination of pregnancy and referrals to safe abortion care. And as noted above, MSF has routinely issued medical certificates to patients, such that it has one of the largest archives of medical certificates in the world.

However, MSF’s decision to issue medical certificates was fraught and controversial.⁷ The organization tried to demarcate a middle ground between cooperation with police and preserving medical neutrality by issuing medical certificates directly to patients and offering to store them at the MSF Legal Department in Paris (or other operational center headquarters in Europe) if patients were unable to store the documents safely themselves.⁸ However, the very act of recording patient reports opened the organization to suspicion by host country governments, because such documents might be used to prosecute state crimes.

What further distinguishes MSF is that the problem of dual obligations is embedded in its founding charter, which is to simultaneously provide

medical care and to speak out about the atrocities that its staff witness—what is referred to within MSF as *témoignage*. This tension has been institutionalized within the structure of the five main operational centers in Europe through each of their humanitarian affairs departments. Each one is in charge of implementing *témoignage*, or advocacy. *Témoignage* is one of the most controversial terms within MSF. It is one of the core principles of the organization, but no one agrees on what it precisely means or how far MSF should go in speaking out.

In this chapter, I trace the history of the organization's work to provide medical certificates as part of post-rape medical care through three historical case studies. Each was formative in MSF's efforts to provide documentary evidence of sexual violence: the Republic of Congo (or Congo-Brazzaville) from 1998 to 2000; the Darfur region of Sudan from 2003 to 2005; and the eastern region of the Democratic Republic of Congo (DRC, or Congo-Kinshasa) from 2002 to 2014. These events have shaped understandings of what is possible or feasible in humanitarian medicine.

These historical case studies demonstrate how the rape kit assemblage traveled not only across national borders, but also across different scales of violence. In one sense, in humanitarian emergencies, the fact of rape is often not in question. In cases such as I will describe in Congo-Brazzaville, for example, the sheer number of patients seeking post-rape medical care can make mass rape and other forms of sexualized violence appear self-evident and, therefore, less subject to scrutiny. Among humanitarian aid organizations, there may well be a shared, if unspoken, understanding on the ground that widespread rape is happening within a conflict or post-conflict zone. At the same time, precisely this shift in the nature and scale of violence can, quite perversely, serve to intensify scrutiny of the evidence available in individual cases—in particular, medical evidence of bodily injury—making it all the more difficult and dangerous for those same organizations to report even the occurrence of rape, let alone try to quantify its prevalence. Such reporting is especially difficult when war crimes and allegations of genocide are in question, as MSF's work in Darfur makes clear. Meanwhile, in some settings of protracted armed conflict, like the case of Congo-Kinshasa, domestic (national) courts may also continue to operate, prosecuting rape committed by armed men as individual crimes with individual victims and individual perpetrators according to the evidentiary requirements of state penal codes—thus encountering the same knowledge problem of the rape kit assemblage that I described for survivors in the US context. The difference in humanitarian settings is that

this knowledge problem can have profound symbolic and material effects not only on the credibility of individual survivors' accounts, but also on the scale at which widespread sexual violence can even be recognized and named as a crime, and on how large-scale events come to be remembered.

It is important to emphasize that I focus on past events to avoid sharing information that could potentially pose security risks to MSF teams and patients today. To that end, I only name individuals who were involved in these historical events *and* who have been quoted in reports published by MSF and made publicly available online. As I discuss in the introduction, many experts, activists, and practitioners in humanitarian medicine agreed to speak with me on the condition of anonymity. These conversations provided necessary historical background and suggested moments of controversy that were formative in the evolution of MSF's work. To protect the confidentiality of my interlocutors, I cite as much as possible from published reports and medical literature to reconstruct events and articulate the concerns that each conflict raised.⁹ I refer to interviews when no published source is publicly available, using pseudonyms and only a general description of the individual's professional background in order to maintain their anonymity. I would also like to note that these historical case studies, while significant in the evolution of the field, do not represent a comprehensive historical account of post-rape care within MSF. Françoise Duroch and Catrin Schulte-Hillen's coauthored 2014 article in the official journal of the International Committee of the Red Cross, the *International Review of the Red Cross*, provides a more thorough-going history than I am able to cover here.¹⁰

In what follows, I first describe MSF's organizational structure. I then describe the origins of MSF's work to provide comprehensive post-rape care in the Republic of Congo (or Congo-Brazzaville). I next examine two subsequent flashpoints of controversy surrounding MSF's field operations in the Darfur region of Sudan and the eastern region of the Democratic Republic of Congo (DRC or Congo-Kinshasa), both of which attracted global attention. I conclude with a discussion of the challenges that medical certificates have raised.

MÉDECINS SANS FRONTIÈRES' ORGANIZATIONAL AND LEGAL STRUCTURE

In 1971, a group of physicians and journalists launched MSF in France for the purpose of providing medical humanitarian aid in difficult and remote

areas affected by armed conflict and other humanitarian emergencies. MSF now operates its own clinics while also supporting and working alongside local government and charity hospitals. Their work sometimes extends beyond immediate crisis response to include longer-term medical aid in post-conflict settings.¹¹

After MSF was formed in France, independent chapters established in Holland, Belgium, Switzerland, Spain, and Greece also came to deploy field operations in humanitarian emergencies (though MSF-Greece later closed). These independent chapters are referred to as operational centers within the organization, and the headquarters of each are located in the following cities: Paris, Amsterdam, Brussels, Geneva, and Barcelona.¹² These operational centers are also referred to as sections, for example, the French section or the Dutch section. While these operational centers share the same name and MSF logo, they operate independently of one another and act as autonomous organizations. For example, more than one operational center may be active in any given emergency; each will have its own head of mission and coordinate with its own headquarters office in Europe (i.e., in the cities listed above). Therefore, in practice, the organizational structure of MSF is quite decentralized. Adding to this complexity is the distinction between MSF operational centers, which deploy field operations, and MSF branches, which do not deploy such operations but do support the five operational centers financially. For example, MSF-USA is a branch that predominantly supports MSF-France financially; however, American volunteers may participate in the field operations of any operational center. MSF International, in Geneva, represents the organization as a whole, but does not deploy field operations.

Three decades after MSF's founding, the MSF Legal Department was created as an inter-operational center in Paris in 2005 so that it could explicitly coordinate between the five operational centers. Soon after the establishment of the legal department, each operational center hired a lawyer to serve as the point person between the legal department in Paris and the operational centers in Amsterdam, Brussels, Geneva, and Barcelona. Notably, while the legal department seeks to establish policy, issue legal advice, and facilitate legal compliance with national laws across all five operational centers, each of these may choose to adapt policy and legal guidance to its own needs or to the needs of its field operations in particular country contexts.

While different MSF operational centers may have different policies, their clinical protocols are more or less harmonized. This synchronization is achieved via the medical director platform through which MSF protocols

are shared and validated by medical personnel in each of the operational centers (or what is referred to as the inter-sectional level). When policies are implemented differently, it is usually at the discretion of the medical coordinator and the head of a particular mission; however, these two figures usually have to make this decision in consultation with the operational manager and health advisor in their headquarters office. For this reason, in what follows, I will refer to MSF in the singular when narrating major historical milestones in the delivery of specialized post-rape medical care. However, when disagreements between operational centers are relevant in a historical case study, I indicate which operational centers were involved (e.g., MSF-France or MSF-Holland).

While conducting research, I was surprised to learn that MSF is predominantly comprised of nurses, as compared to the number of doctors present in field operations. The practitioner-activists within MSF who led implementation of reproductive health care and specialized medical services for survivors of sexual violence were often women in nursing, midwifery, or social work. In addition, women doctors and lawyers have also played a significant role in developing the organization's clinical guidelines and medical certificates.

MSF has a reputation for operating independently of United Nations humanitarian relief operations, including UN efforts to coordinate humanitarian aid organizations working on gender-based violence. For this reason, MSF operational centers often negotiate with country governments and parties to conflict independently. Although prioritizing independence, MSF staff must consult national laws that bear upon their field operations.

The MSF Legal Department

Over time, the legal aspects of MSF's work increased as the complexity of their operations increased. While the organization had always negotiated host country legal requirements, by the early 2000s, the nature of MSF's work was evolving in ways that required more extensive legal obligations. MSF ran hospitals with surgeries, dispensed medication, and was at the forefront of the global movement to make generic antiretroviral (ARV) drugs to treat HIV/AIDS available in low-income, high-burden countries. Importing and administering ARVs, for example, required compliance with regulatory laws governing prescription drugs. Staffing hospitals with expatriate physicians and nurses required compliance with domestic medical licensing laws. In addition, the nature of conflict was changing such that MSF was

working in pre- and post-conflict conditions where, as one interlocuter put it, there was more “trouble and tension” than open conflict or outright war. The organization was also increasingly confronting the impingement of anti-terrorist laws on their operations in the wake of 9/11. Country governments were increasingly using national laws and international counterterrorism agreements to control humanitarian activities. Further, the establishment of the International Criminal Tribunal for the former Yugoslavia (ICTY) in 1993 and for Rwanda (ICTR) in 1994, followed soon after by the International Criminal Court (ICC) in 1998, increased the risk that any public advocacy efforts by MSF could put the organization at risk of being asked to turn over their records to international investigators or for their staff to be called to testify in court.

As the organization began addressing sexual and gender-based violence in the 1990s, staff began to confront the issue of abortion for women who became pregnant as a result of rape. Because rape is a crime, MSF also had to navigate mandatory reporting laws that often required a police report. In some countries, the evidentiary requirements of domestic criminal laws stipulate that a medical forensic exam must be administered by a state medical examiner in order to be admissible in court. MSF attempted to chart a middle ground whereby staff would issue medical certificates directly to patients but would not cooperate directly with police or military officials. This strategy was intended to facilitate documentation of human rights violations but not jeopardize medical neutrality.

When the legal department was established in 2005 as an inter-operational center, it was located in Paris, but it still to this day explicitly coordinates between the five operational centers. The purpose of the legal department is to centralize the work of legal compliance across all domains of law.¹³ Françoise Bouchet-Saulnier was the founding director of the MSF Legal Department and served from 2005 until 2022. She is a French lawyer and judge who joined MSF in 1991 as a political and legal advisor to MSF-France, serving in that capacity until she became head of the legal department. She is well known in the field for her reference text titled *The Practical Guide to International Humanitarian Law* (now in its third edition).¹⁴ The guide is designed to provide humanitarian organizations with a reference text for understanding the foundational principles of the laws of war that bear upon their operations. She was also pivotal in the creation of medical certificates that could be given to any patient that sustained an injury, whether unintentional (such as car accidents) or intentional (such as sexual assault or attempted homicide).

The added complication, of course, was that documented injuries could be linked to human rights violations or war crimes committed by state officials or parties to armed conflict.

Medical documentation of rape preceded the first designated program to provide post-rape care in Congo-Brazzaville in 2000 and the establishment of the legal department in 2005. The initial impetus to create more formal documentation for legal purposes arose in a Somali refugee camp in Kenya in the early 1990s. Women living in the refugee camp had been raped, and MSF staff believed that the perpetrators were targeting women from particular ethnic groups; this amounted to a form of individual persecution under international law. MSF staff provided documents to UNHCR in order to substantiate women's accounts and expedite their asylum applications. Much like the earliest UN guidance on gender-based violence in war, the initial concern was the vulnerability of women living in refugee and IDP (internally displaced person) camps awaiting relocation or return.¹⁵ The MSF operational centers later created forms to document any form of violence, with MSF-France leading the development of standardized medical certificates. The MSF Legal Department subsequently issued a policy that all field operations routinely offer medical certificates to patients. Two original medical certificates would be written: one offered to the patient (or stored on their behalf), and one retained by the organization, first in their field offices for a period of time and then archived in the appropriate headquarters office in Europe.¹⁶ MSF retained an original in order to be able to authenticate any certificate that might be introduced in court. Confidentiality and safety of the documents had to be secured first at the field level (starting at the clinic or hospital where the patient received treatment), and then maintained while staff transported documents from the field level to one of the operational centers for archiving.

The establishment of MSF's first comprehensive post-rape care program, located in Congo-Brazzaville, which I discuss next, illustrates its increasing role since the 1990s to address sexual violence and its decision to establish its first dedicated program following the end of the civil war in 1999. It also demonstrates the early controversies around making PEP to prevent HIV available to survivors of sexual violence; this occurred shortly after PEP was shown to be efficacious in preventing HIV transmission among health care workers after occupational exposure. Although the program issued medical certificates to patients, an MSF retrospective on its first year of operations indicated that most patients were assaulted by members of the military or militias and did not seek prosecution in domestic (national) courts.

CONGO-BRAZZAVILLE (1998–2000)

To my knowledge, MSF established its first designated program offering comprehensive specialized medical care to survivors of sexual violence in March 2000, in the immediate aftermath of the civil war in the Republic of Congo (Congo-Brazzaville) that occurred between 1998 and 1999.¹⁷ Heavy fighting in the capital city of Brazzaville led to massive population displacement. When the government declared victory, government officials established a so-called humanitarian corridor for civilians to return to Brazzaville, but attacks on civilians peaked as they traveled to the capital and violence continued. MSF-France was operational in Brazzaville in 1999, and the French section's leadership has publicly acknowledged their failure to anticipate the large-scale return of severely malnourished civilians to the capital in May 1999 via the "humanitarian corridor" (and continuing for several months afterward). The French section also acknowledged their failure to respond to reports of mass rape. Concern about this failure to respond adequately led MSF to create its first comprehensive program to provide medical care to survivors of sexual violence.

Pierre Salignon, then program director at MSF-France, and Marc Le Pape, a sociologist with France's National Center for Scientific Research (CNRS), captured field staff reflections on these events in a 2003 report titled *Civilians Under Fire: Humanitarian Practices in the Congo Republic 1998–2000*.¹⁸ In this coedited volume, MSF staff who were involved in the Congo-Brazzaville field operations at the time detail how events unfolded and the decision-making processes that shaped MSF's course of action.¹⁹ This report and interviews that I conducted with aid workers familiar with these events illustrate how mass rape came to the attention of MSF in Congo-Brazzaville and how the provision of specialized medical care for survivors of sexual violence originated and evolved. The massive population displacement—and MSF's field operations in response to it—were primarily located in the southern part of Brazzaville, and I focus my narration of events on that area.

This particular episode of armed conflict in Congo-Brazzaville in 1998 and 1999 occurred between military colonel and long-time President Denis Sassou Nguesso and opposition leaders Bernard Kolelas and Pascal Lissouba. The Republic of Congo gained independence from France in 1960. President Denis Sassou Nguesso had ruled the country from 1979 to 1992, lost a general election in 1992, and returned to power by force in 1997. In early 1998, clashes began between the government army (and its allied *Cobra* militia)

and opposition forces in the south of the country, known as the *Cocorye* and *Ninja* militias. The violence escalated into intense fighting in the capital city of Brazzaville in December 1998, forcing an estimated eight hundred thousand residents to flee.²⁰ Some fled to the northern parts of the city where the International Committee of the Red Cross (ICRC) was operating. Some crossed the river from Brazzaville into Kinshasa, the capital city of the neighboring Democratic Republic of Congo (Congo-Kinshasa). Many residents fled south and hid in the forests of the Pool region, alongside other displaced civilians from the southern region. For those hiding in the forests, militias associated with the opposition attacked civilians, even while these same militias had claimed to represent and protect the people of the south. Many hiding in the forests went for months without access to food or medicine.

Between December 1998 and April 1999, the government closed access to the southern parts of Brazzaville. Neither residents nor humanitarian aid organizations were allowed to enter. Many neighborhoods were looted. Prior to the outbreak of the war, Makelekele Hospital, one of the main hospitals in Brazzaville, had run a program for survivors of sexual violence in partnership with the US-based humanitarian aid organization International Rescue Committee (IRC). The hospital ceased functioning. Amid heavy fighting, health care workers abandoned the hospital, and it was looted.

After several months of battles between the Congolese army and the southern militias, the government began reestablishing control of the southern region of the country. It was in May 1999 that the president opened access to parts of southern Brazzaville and urged residents who had fled the capital to return, promising safe transit from Kinkala to Brazzaville. In the first week of May alone, ten thousand people returned to the capital.²¹ Civilians continued to return to Brazzaville for several months after the opening of the corridor, from the height of the influx of civilians in mid-1999 until February 2000. Approximately 20% of those traveling to Brazzaville were residents of the Pool region fleeing their homes to seek assistance in the capital.²² Ultimately, in November 1999, a cease-fire agreement was reached, but instability and violence against civilians continued throughout the following year.

Responding to reports of mass rape along the “corridor of death”

The Congolese government required civilians returning to Brazzaville to register at the sports center upon arrival. As civilians began returning in

May 1999, MSF staff heard reports of mass rape as part of widespread violence against civilians along the so-called humanitarian corridor. There were also reports that men were summarily executed en route. The military reportedly tried to identify young men of fighting age who might be working with the southern militias and pre-emptively wounded them to prevent them from fighting. Many civilians who had been hiding in the forest without access to food or medicine for several months were on the brink of death. Those who survived the journey referred to it as the “corridor of death.”

As tens of thousands of civilians made their way to the sports center, MSF staff were overwhelmed by the number of adults and children who were severely malnourished; many of them died shortly after their arrival. Although MSF staff were concerned about the reports of women being raped in transit, given the acute hunger of returnees, they prioritized setting up therapeutic feeding centers (TFCs) and did not immediately establish specialized medical care for rape victims. Instead, MSF staff referred women to the sexual violence program co-led by the IRC in collaboration with Congolese doctors at Makelekele Hospital, which was beginning to operate again. During this time, MSF also supported the IRC program at Makelekele Hospital by supplying antibiotics for treatment of bacterial STIs and the morning-after pill to prevent pregnancy.²³

The program co-led by the IRC at Makelekele Hospital did not provide antiretroviral drugs for PEP to prevent HIV transmission, and MSF staff also did not initially supply it. In 1999, PEP was still new, and its efficacy in preventing HIV transmission had only been established in 1995 after occupational exposure to blood (e.g., following a needlestick injury in a health care setting); it had not been tested for use in preventing HIV transmission following rape.²⁴ According to Marc Le Pape’s 2003 review of internal correspondence, in July 1999, the physician in charge of emergency operations at MSF-France’s headquarters, Jean-Clement Cabrol, sent a letter to the Brazzaville team proposing a preventative dose of AZT (also known as zidovudine) be offered if a rape victim reported within seventy-two hours, but the Congolese Ministry of Health denied the request. In November 1999, MSF approached the Ministry of Health again; they agreed in January 2000, and the administration of PEP began with the start of MSF’s first comprehensive treatment program for rape victims in March 2000.²⁵

To estimate the number of women who had been raped while returning to Brazzaville, Pierre Salignon and physician Dominique Legros

conducted a retrospective medical chart review at Makelekele Hospital.²⁶ Based on these patient records, between May 3 and December 31, 1999, 1,109 women and girls sought treatment at Makelekele Hospital for rape. When patients seen at Talangaï Hospital were included in the count, the number rose to 1,600.²⁷ Most of the alleged perpetrators were armed men. Given that the conflicts in Bosnia and Rwanda had recently brought international attention to the issue of rape as a weapon of war, internal correspondence between MSF-France headquarters and field staff raised the question of whether or not rape had been used this way in Congo-Brazzaville. According to Marc Le Pape's analysis of MSF's decision-making process at the time, the field staff never answered in the affirmative.²⁸ While mass rape was widespread and known to all, it was unclear if it was being used as an explicit strategy of war.

Concern about risk of HIV transmission prompted debate within MSF about whether or not PEP should have been provided earlier. Congo-Brazzaville has a generalized HIV epidemic; at the time, the estimated HIV prevalence rate was 8%. Yet antiretroviral drugs were largely inaccessible in the country due to high prices. MSF had recently launched its Access to Medicines campaign in 1999 as part of the global access to medicines movement, but the major cost reductions on first-line antiretroviral drugs had not yet been won.²⁹

Ethical concerns related to offering PEP in a high-burden country without widespread access to ARVs were part of the government's initial resistance to including the drugs in post-rape care. As physician Joanne Liu (who would later go on to become international president of MSF) and Salignon note in their 2003 published account of MSF's first comprehensive post-rape care program, Congolese health officials initially resisted offering PEP because HIV treatment was virtually nonexistent in the country at the time.³⁰ Providing PEP in a high-burden country without widespread access to antiretroviral drugs posed an acute ethical dilemma. The Congolese health care system had very limited capacity to treat patients who might test positive for HIV during the initial visit or after completing (or failing) the twenty-eight-day PEP regimen. For example, even after the MSF post-rape care program started, if a patient tested positive, they were referred to an outpatient clinic (known as the Centre de Traitement Ambulatoire, or CTA) for palliative care and treatment for opportunistic infections. Most patients could not afford antiretroviral drugs, which were only available in certain private pharmacies.

MSF's first post-rape care program

After negotiations with the government, the MSF post-rape care program was established in collaboration with the national medical program for victims of sexual violence run by the Congolese Ministry of Health, which had been launched at the start of 2000. MSF's first post-rape care program included prophylactic treatment of bacterial STIs (including trichomoniasis, gonorrhea, and syphilis), psychological counseling during the initial visit, and issuance of a medical certificate. Patients who presented within seventy-two hours of the assault were also offered the morning-after pill to prevent pregnancy and a twenty-eight-day PEP regimen administered as a daily double-therapy antiretroviral treatment to prevent HIV. Later protocols also included vaccination for tetanus and hepatitis B, and, where possible, referrals to safe abortion care.

Liu and Salignon included a retrospective medical chart review of patients seen at the MSF program in the year following the end of the war.³¹ Based on these patient records, between March 1 and December 31, 2000, 109 patients received post-rape treatment (all but 1% were female); in just over half of the cases, the alleged perpetrators were members of the military. While the number of women seeking post-rape medical care at the MSF program in 2000 was much lower than the number of women seeking care at Makelekele Hospital at the height of the attacks during the massive influx of civilians returning to Brazzaville in 1999, the continuing pattern of sexual assault by armed men—and specifically members of the military—reflects the continued instability and violence that followed the official end of the civil war.

Liu and Salignon also noted that only one woman initiated legal proceedings, using the MSF medical certificate as documentary evidence. They attributed the reluctance of women to pursue criminal cases to the fact that most of the alleged perpetrators were members of the armed forces or militias.³² This is especially notable because President Denis Sassou Nguesso won the civil war and, as of the time of this writing, has remained in power since. Women may have been reluctant to bring court cases against members of the military whose leader remains in power.

The experience of MSF-France in Congo-Brazzaville became a touchstone, a point of reference, for future conflicts. Most significantly, in Congo-Brazzaville, the fact that mass rape occurred was not disputed. As I will discuss in the next section, however, in Darfur, the number of women seeking

medical care after rape was high, but not as immediately overwhelming as it had been in Brazzaville. This led MSF-France leadership to contest whether or not mass rape had indeed occurred in Darfur, in part by comparing the estimated number of women reporting rape in each of the conflicts. What happened in Darfur, which I discuss next, highlights the problem of dual obligations and the problem of evidence in medical documentation of rape.

DARFUR, SUDAN (2003–2005)

Soon after the conflict in Congo-Brazzaville, atrocities in Darfur captured global attention.³³ The US government recognized the atrocities as genocide in 2004, and the Save Darfur campaign launched the same year.³⁴ MSF had long been active in Sudan. In this section, I focus on MSF's work in Darfur between 2003 and 2005, and specifically on controversies surrounding the decision of MSF-Holland to publish a report on rape in honor of International Women's Day on March 8, 2005.

MSF-France and MSF-Holland were the first MSF sections to provide medical care to survivors of sexual violence in Darfur. Both sections documented the number of rape victims treated in their programs. However, only MSF-Holland decided to bring global attention to the high number of reported cases in a report titled *The Crushing Burden of Rape: Sexual Violence in Darfur*.³⁵ The report was posted on the MSF-Holland website.³⁶ After the report was published, two expatriates working with MSF-Holland, the head of mission stationed in Khartoum, Paul Foreman, and the coordinator in Darfur, Vincent Hoedt, were put under house arrest in 2005 by the Sudanese government (and subsequently released). While it is difficult to assess the impact the report had when it was initially posted on the MSF-Holland website, the arrest of Foreman and Hoedt made international news, increasing the global profile of the report.³⁷

MSF-Holland's decision to publish the report was contentious within the organization. So was the timing. MSF-Holland published the report shortly before the UN Security Council met to refer the situation in Darfur to the ICC for investigation of war crimes.³⁸ The ICC later issued arrest warrants for then Sudanese President Omar Al-Bashir, first for war crimes and crimes against humanity in 2009, and subsequently also for genocide in 2010.³⁹ Ultimately, MSF-Holland was expelled from the country in 2009, along with MSF-France.

To reconstruct a detailed timeline of the operations of MSF in Darfur between 2003 and 2005, I drew on two organization reports that offer a chronology of events. The first is an internal review of operations conducted by MSF-France, and the second is a retrospective case study of MSF's work in Darfur published by MSF International in the Speaking Out Case Study series.⁴⁰ The reports describe internal debates about if and when to speak out about sexual violence in Darfur. In addition, I conducted interviews with aid workers familiar with these events and consulted reports by women's rights organizations.

Sudan had been embroiled in political unrest and intermittent armed conflict since it gained independence from Britain in 1956. Thirty-three years later, President Omar Al-Bashir assumed power following a military coup. When this particular episode of violence in Darfur began in late 2002, the Sudanese government was engaged in peace negotiations to end the nearly two decades-long civil war with the Sudanese People's Liberation Army, or SPLA, in the southern region of the country, which ultimately led to the voter referendum that established the independent Republic of South Sudan in 2011. Between 2001 and 2002, two armed opposition groups formed in Darfur called the Sudan Liberation Movement/Army, or SLM/A, and the Justice and Equality Movement, or JEM, with members drawn predominantly from the Fur, Zaghawa, and Massalit groups in the region.⁴¹ Both opposition groups reportedly took up arms against the government to oppose the political and economic marginalization of the Darfur region. Intermittent attacks on government sites began in late 2002, but the conflict escalated in March and April 2003 when SLM/A and JEM intensified attacks against Sudanese government and military outposts in North Darfur.⁴²

In response, the Sudanese government launched what it characterized as a counterinsurgency military campaign. Much of the violence was carried out by the Janjaweed, a paramilitary group armed and supported by the Sudanese military, with members drawn predominately from Arab nomadic groups in the region; the Darfurian term *Janjaweed* refers to an armed bandit or outlaw on a horse or camel.⁴³ The Janjaweed targeted civilians, forcing them to flee their villages and seek safety in informal camps within Darfur or to cross the border into the neighboring country of Chad. By November 2004, there were an estimated 1.65 million internally displaced persons in Darfur.⁴⁴ Those who survived the attacks recounted particularly vicious acts of violence intended to terrorize the residents of the region, including destruction of Fur, Zaghawa, Massalit, and other villages; theft of livestock; theft or destruction

of food reserves; pollution of wells; burning of houses; and murder, torture, rape, and kidnapping of civilians.⁴⁵

MSF-Belgium treated a surge of Sudanese refugees in their clinics in the eastern region of Chad in June 2003, but the Sudanese government denied MSF access to the Darfur region until October 2003. MSF-France and MSF-Holland then conducted exploratory missions in Darfur amid active fighting. MSF-France became operational in Darfur in December 2003, and MSF-Holland became operational shortly afterward, in early 2004.⁴⁶ It was in this context that MSF-France and MSF-Holland began hearing reports of rape among those who sought assistance from their field teams.

The 2005 MSF-Holland report on rape in Darfur

In March 2005, MSF-Holland published the pivotal report on rape in Darfur based on patient medical records and victim and witness statements. The victim and witness statements were collected first by an expatriate midwife (who has not been named publicly by MSF) and subsequently by then MSF-Holland Humanitarian Affairs Officer Aurélie Lamazière. According to the report, MSF staff treated almost five hundred rape victims in the region between October 2004 and February 15, 2005.⁴⁷ The report provided detailed information about the circumstances of the assaults among a subset of 297 rape victims treated in West Darfur.⁴⁸ Nearly all of these 297 patients were women; 81% reported that the assailants were armed militia or military members. The vast majority of assaults (82%) occurred as women were carrying out their daily activities, such as collecting firewood or water, working their fields (sometimes in unoccupied destroyed villages), or traveling to the market; only 4% occurred while they were fleeing their home villages.⁴⁹ At the time of treatment, 7% of the women already knew they were pregnant as a result of rape, and many feared arrest and imprisonment for illegal pregnancy because sex outside of marriage was a criminal offense under Sudanese penal codes.⁵⁰

The report did not explicitly name the Sudanese government or accuse the Sudanese military of crime. However, the critique was implicit: Over three-quarters of cases involved militia or military members, signaling the failure of the government to protect civilians from militias (implicitly, the Janjaweed) and from their own army soldiers. It also suggested a continuing strategy of attacks and intimidation by the Janjaweed and Sudanese army soldiers after civilians were forced to flee their homes, complicating the distinction

between active war and post-conflict unrest as well as what constituted rape as a strategy of war.

Prior to the release of the report, there was disagreement within MSF about the content and whether the report should be released at all.⁵¹ This concern was focused not only on the security risk the report would pose to patients and field staff, but also on the methodology used to construct the estimates. MSF-Holland had published the report without prior agreement from the other MSF sections. As a result, MSF International refused to put the report on its website; it was only published on the MSF-Holland website.⁵²

The report itself contained no details about the research design or methodology. However, the 2024 MSF Speaking Out Case Study on Darfur provides more detail about how the information was collected, as well as the internal disagreements about the legitimacy of the approach.⁵³ The Darfur region is divided administratively into three states: North Darfur, South Darfur, and West Darfur. The collection of victim and witness statements began in Garsila, a rural area in West Darfur, and expanded to include five additional projects in other areas of Darfur. The lead author of the 2005 report, Aurélie Lamazière, and then MSF-Holland Head of Mission Paul Foreman were interviewed in 2022 for the Speaking Out Case Study. To my knowledge, their interviews provide the only detailed information available about how the data was collected. Lamazière shared the following:

In Garsila, the teams regularly witnessed the consequences of the rampant violence over the course of their work. There was a difference between rural areas such as Garsila and the camps, where there was a sense of protection in numbers. In the rural areas, the patterns of violence were repeated, again and again. The project coordinator was a nurse and had been there for a very long time. She said they often heard the same stories. I began sorting through the medical data, speaking to the various people who collected it to lend it a sense of cohesiveness. The women of Darfur would never have willingly reached out to a “Reproductive Healthcare” programme. The accounts were in fact gathered in the children’s nutrition centres, where the women would talk while they spent hours waiting. They confided in the nurses too, who fed the information back to us in turn. In the healthcare centres too, some doctors and nurses heard stories while they were providing suitable treatment. I can’t remember exactly what figures I chose to use, but they were checked by the medical staff, and so were trustworthy.⁵⁴

The midwife who initially collected the victim and witness statements on which the report was based was an expatriate who left the country before

the report was published. As noted above, the midwife was not named or interviewed for the Speaking Out Case Study. It is not clear if or how patient consent was obtained. It appears that some of the reports were collected from field staff. It is also not clear if the women or the field staff were aware of how the information would be used or how it would be shared.

Based on Foreman's account, it appears that the midwife was gathering statements while offering medical care, including PEP to prevent HIV and low-level counseling. Foreman explained how the work evolved:

It started in West Darfur. The midwife was administering post-exposure prophylaxis and a certain amount of relatively low-level counselling, but also HIV tests and attempting to address unwanted pregnancies. For several months, she'd been gathering testimonies on rape. She'd done an extremely good job in cataloguing witness statements and in maintaining a level of confidentiality whilst pulling together the file of all the different statements that she'd taken. Aurélie [Lamazière] was impressed by the quality of the accounts. We used the midwife to do training elsewhere in Darfur. So, she went to all the projects, spoke to all the medics who were dealing with maternal and child health. We expanded the data collecting from one project where it was effective to five projects where very quickly the volume of data increased. Aurélie started working on the database and bringing together some of the witness statements. She wrote a document which had data analysis. So basically, in its first form, we had two documents. The first was an epidemiological analysis of the data . . . it said 3% of the people were raped during ongoing conflict, which meant 97% of the victims or the survivors of sexual violence were raped whilst going about their daily duties, which mostly were managed by the Sudanese authorities. Document one was the data analysis. Document two was a book of witness statements with lots of different quotations from different people.⁵⁵

As Foreman explained, the preliminary report included two components: statistics based on analysis of the data and a collection of victim and witness statements. The draft report was prepared in Amsterdam and was not shared widely with field staff in Darfur.⁵⁶ Foreman and Vincent Hoedt, the MSF-Holland coordinator based in Nyala, South Darfur, reviewed this early, two-part version. Hoedt shared it with a small number of trusted Sudanese field staff in Darfur, but most Sudanese staff were not aware of the report before its release. However, after Foreman and Hoedt reviewed the initial draft of the report, major changes to the format and presentation were made by MSF-Holland staff based in the headquarters office in Amsterdam. Even expatriates Foreman and Hoedt only saw the final version a couple of days

before publication. According to Hoedt, “We felt backstabbed.”⁵⁷ The final version was a combined, four-page advocacy piece that featured an image of three African women on the cover, one struggling with a donkey, and a quote below the image taken from the witness statements that read,

It happened last August when we were in our farms outside the village. We saw five Arab men who came to us and asked where our husbands were. Then they told us that we should have sex with them. We said no. So they beat and raped us. After they abused us, they told us that now we would have Arab babies; and if they would find any Fur woman, they would rape them again to change the colour of their children.⁵⁸

The quote was attributed to “three women, 25, 30 & 40, October 2004, West Darfur,” and clearly suggested that the perpetrators were using rape as a tool of ethnic cleansing.

Much of the debate within MSF was about the report’s framing of rape as a tool of ethnic cleansing. MSF as an organization had not taken a position on whether the violence in Darfur constituted ethnic cleansing or genocide. As noted above, some also objected to the timing of the report’s public release shortly before the UN Security Council was scheduled to meet to refer the situation in Darfur to the ICC, what then MSF Legal Director Françoise Bouchet-Saulnier called a “silent advocacy policy” by MSF-Holland that proceeded despite the lack of consensus among MSF sections.⁵⁹

*Form 8 and the problem of dual obligations
created by state mandatory reporting requirements*

The Dutch section’s report on rape came under scrutiny by Sudanese officials, not only because it implied that the Sudanese military had failed to protect civilians, but also because it suggested that MSF had not complied with the government’s mandatory reporting requirements. The government required health care providers to report any suspected crime, including rape, to the police; police had put pressure on MSF to comply.⁶⁰ The Sudanese government also required victims of sexual violence to file a police report and undergo a medical forensic exam before receiving medical care. The state medical examiner recorded findings on a police form called Form 8. This form became a focus of women’s rights activism. One gender-based violence expert, whom I will call Rose, recalled the importance of the Dutch section’s

report in galvanizing global attention to the issue of Form 8 in obstructing women's access to immediate medical care:

My first exposure to the problem of medical documentation of rape was in Darfur in 2004. . . . And we were all just starting to talk about the problem of women being attacked when they went out to get firewood in the camps. We became aware of a law called the Form 8, which is the Government of Sudan's medical documentation form, which had to be filled out by a police officer before you could seek medical attention. . . . This was the one I think that turned us all, we all started to think about medical documentation about this time. So in like April 2004, I think it was UNICEF and IRC [International Rescue Committee] raised the issue. And people were starting to do awareness raising around it. So MSF Holland was there, and they were treating lots of raped women, like 500 I think. And they decided to go public with the problem because everyone was just talking about it and no one had mentioned or had declared that this is a problem. And when they issued this report . . . they put numbers to . . . how many women had sought services. And that became like this huge thing. The government denied it. They said, if that's the case, where are the Form 8s? We don't see any police reports. Those women are lying. They're adulterers and they should go to prison. And the doctors who treated them should also go to prison. So this became, you know, a way for the government to begin to manipulate humanitarian aid workers.⁶¹

The government demanded that MSF turn over the names and medical certificates of victims.⁶² When MSF refused, the government claimed that the organization was lying and had fabricated the numbers. Police and military in Darfur reportedly tried to prevent women from seeking medical care at MSF clinics.⁶³

The problem of dual obligations created by mandatory reporting requirements was compounded by the fact that the Sudanese penal code criminalized any sex outside of marriage. In Sudan, abortion was only legal within marriage.⁶⁴ If women who became pregnant as a result of rape could not prove that they were raped, then they could be imprisoned for sex outside of marriage. For example, in an excerpt from an internal memo responding to questions about MSF-Holland's 2005 report on rape, Lamazière recounted,

The first time it came to our attention, the expat midwife talked to a policeman who came to the clinic to ask for a medical certificate (stating the pregnancy) for a list of women. He clearly explained that he was making this list to "protect" the women who were pregnant outside marriage. Then the expat midwife and expat nurse saw the women in jail. Not being mistreated

of course. But they visited the jail (once, I think) to provide medical care. . . . The team even paid the fine of a woman to be out of jail.⁶⁵

The expatriate midwife who recorded survivors' accounts of rape tried to help pregnant women who had been imprisoned by working with an expatriate nurse to provide medical care in the jail. The 2005 Dutch report on rape called attention to the imprisonment of women as "victims treated as criminals" and punished for so-called illegal pregnancy.⁶⁶

The International Criminal Court and the problem of dual obligations created by international human rights investigations

Dual obligations arising from state mandatory reporting requirements and criminalization of sex outside of marriage coincided with those arising from international human rights investigations in the region. Speaking out posed the very real risk that MSF could be expelled from the region or the country and lose access to populations in need of their assistance. At the time, the MSF-Holland Humanitarian Affairs department had a reputation within MSF of being pro-human rights and pro-justice. Some within MSF critiqued the department for not appreciating medical ethics or the importance of respecting medical confidentiality.

The Dutch section's report on rape exposed sharp internal disagreements about whether MSF should speak out about the violence that its staff were witnessing in Darfur. These internal disagreements intensified when the ICC began investigating war crimes in Darfur. MSF's principle of *témoignage* raised questions of whether and to what extent MSF should collaborate with the ICC. If MSF patient records could be used to generate estimates of violence, should MSF be making documentary evidence available to ICC prosecutors?

After the initial founding of the ICC in 1998, international organizations were under significant pressure to cooperate and provide evidence of war crimes. The ICC became operational in 2002, just before this episode of violence in Darfur began. In the years since its initial founding, the ICC has lost significant credibility. Its failure to apprehend and successfully prosecute sitting heads of state has exposed the limits of international justice premised on the cooperation of governments accused of war crimes and crimes against humanity. In addition, the ICC's failure to investigate American and Western European leaders for alleged war crimes has undermined the

legitimacy of the court.⁶⁷ However, in the early years of the court's operation, many humanitarian aid organizations were grappling with their ethical obligations to assist the ICC in holding high-level officials accountable for war crimes, as the ICTY and ICTR had done before it.

This dilemma arose for MSF in part because the organization had publicly supported the creation of the ICC in 1998. It then found itself negotiating the dual obligations that ICC investigations created. MSF's support for the ICC's stated mission to end impunity for war crimes and mass atrocities dovetailed with MSF's professed commitment to *témoignage*. A very contentious internal debate ensued about whether or not the obligation to speak out included sharing information with the ICC.

As a kind of compromise, then MSF Legal Director Françoise Bouchet-Saulnier proposed that the organization only share its documents with the ICC if MSF staff were the only witnesses to the alleged crimes in question. She and other leaders within MSF negotiated with the ICC to exempt those staff from testifying in court, although an individual staff member could choose to do so in their own personal capacity.⁶⁸ All of this was being worked out during the ongoing crisis in Darfur.

Despite its public pronouncements of independence from the ICC, MSF could not escape accusations of collusion with ICC investigators from Sudanese government officials. Françoise Bouchet-Saulnier later confirmed that MSF had not given documents to the ICC.⁶⁹ However, the suspicion alone was enough to put their staff and patients at risk of retaliation by parties to the armed conflict.

But there was not only suspicion of cooperation outside of the organization. There was also continuing suspicion of MSF-Holland within the organization as well. Before the MSF-Holland report on rape was published in March 2005, Aurélie Lamazière and Vincent Hoedt had shared information with the UN International Commission of Inquiry on Darfur.⁷⁰ The UN Commission of Inquiry was a fact-finding body established by UN Secretary General Kofi Annan in 2004. It was not part of the ICC. However, in its report to Kofi Annan, issued in January 2005, the UN Commission of Inquiry recommended that the UN Security Council refer the situation in Darfur to the ICC, effectively blurring the line between the two international bodies as far as the Sudanese government was concerned. It also became plausible that information shared confidentially with the UN Commission of Inquiry could have been subsequently shared with ICC prosecutors as the report had recommended.⁷¹

In July 2008, ICC prosecutor Luis Moreno Ocampo requested issuance of an arrest warrant for Sudanese President Omar Al-Bashir. MSF Legal Director Françoise Bouchet-Saulnier went through the charges line by line to see if there was any indication that the prosecution was using information MSF could have provided as evidence for their case, either via public MSF reports or through confidential MSF data or witness statements. Rape was among the charges. MSF staff were aware that the prosecution could refer to the MSF-Holland report on rape as evidence for this charge. But the suspicion of MSF-Holland was so strong that Françoise Bouchet-Saulnier was concerned that its staff may have shared identifiable patient data with ICC prosecutors, as she explained in an interview conducted in 2022 for the Speaking Out Case Study report:

I carried out a thorough, hands-on examination of what we knew, what was said, where the evidence was, and where the people who had given eyewitness accounts were. I also went through the charges with a fine-tooth comb. I examined all the documentation that had been made public and could be used to identify people or really put us in an awkward position: what do we know, what are we sure about, where are our medical archives from the time? At MSF Holland, the majority supported the ICC. In Paris, most were against the international justice route, and everyone was convinced that MSF Holland had passed on this report to the ICC. Anyhow, the report went public, so everyone was able to read what was in it. But it raised questions around the names of the surviving victims who could potentially have been called as witnesses by the ICC. I was concerned that they could be identified. Did MSF Holland hand over the report, or more? At the end of the day, it was impossible to be sure. I can't say with any certainty they sent it because I don't have any proof.⁷²

The fear that MSF's own staff had potentially shared identifiable patient information with ICC investigators (either directly or through the UN Commission of Inquiry) signals the very real concerns about data breaches that collection of sensitive patient data raises. About eight months after the initial request, on March 4, 2009, the ICC issued an arrest warrant for Al-Bashir. As MSF expected, MSF-Holland was an immediate target of government retaliation: The Dutch section was expelled the same day. The French section was expelled the following day.

While the ICC indictments raised the stakes of potential breaches of data security, the capacity of MSF staff to safely store patient data had

already been called into question when the MSF-Holland expatriates were temporarily put under house arrest in Khartoum. In the Speaking Out Case Study report, Foreman recounted in an interview how the victim and witness statements that were the basis of the report had only barely been transported out of the country by an expatriate traveling back to Amsterdam. The statements had been stored in a locked safe in his office, but he had taken them out in anticipation of giving them to the person returning to the Netherlands. When Sudanese government officials came to his office to arrest him, the statements were on his desk. He was able to hand them to the expatriate before he was interrogated, but government officials could have easily intercepted them.⁷³

The 2005 MSF-Holland report on rape and the Dutch section's eventual expulsion from the country in 2009 are infamous within the field. These events came up frequently in my conversations with current and former humanitarian aid workers when discussing the promises and pitfalls of providing medico-legal documentation in humanitarian settings. Since this incident, some organizations working in similar contexts may have become more conservative in their willingness to issue or hand over medical certificates to victims, especially those seeking justice in highly politicized court proceedings or unstable political environments.

The politics of knowledge surrounding the Dutch report

Just as heated as the debate about sharing information with international human rights investigators was the debate about the methods used and the credibility of the data on which the report relied. In February 2005, prior to the report's release, a draft version had been discussed in a meeting of international operations directors from all five sections. According to the minutes of the meeting, MSF-France Operations Director Guillermo Bertoletti had questioned the evidence base of the report. An excerpt from the minutes of this meeting reads as follows:

MSF-Holland will issue in the coming weeks a report on rape. MSF-France questioned the validity of the information stating that MSF-Holland cannot prove the extent of rape because *in most cases there is no medical proof of the rape*. MSF-Holland feels that it is necessary to go ahead based on the description of the rape by the patients. MSF-France questions about the validity of the data as MSF-France teams are seeing very little rape in camps where they are active.⁷⁴

Part of the critique stemmed from the frequent absence of clinical evidence following rape: the fact that rape is very often “an injury without a mark,” as one of my interlocutors put it. The other part of the critique arose from the fact that other sections were not seeing patients in the same numbers that the Dutch section was. For example, according to the French section’s review of patient data for victims of physical violence treated by MSF-France in Mornay, West Darfur, between March and October 2004, 39 of 134 (29%) patients treated for any form of physical violence reported rape.⁷⁵ While these figures were taken from a different location and an earlier time period, the reported number of patients disclosing rape was much lower than the Dutch section had indicated.

For critics of the Dutch figures, the French section’s experience in Congo-Brazzaville was one of the key reference points. Just three years earlier, the French section had published its *Civilians Under Fire* report (discussed above) and its associated *Lancet* article, which estimated that approximately sixteen hundred women and girls disclosed rape when seeking care at the hospitals of Makelekele and Talangäi in Brazzaville between May and December 1999 during the height of the attacks along the so-called humanitarian corridor.⁷⁶ For the authors of the French section’s report on Darfur, the sheer scale of rape seemed self-evident in Congo-Brazzaville, but not in Darfur.⁷⁷

Another point of contention was the validity of using interviews to construct estimates of violent injury versus death. MSF was known for conducting retrospective mortality surveys to estimate per capita mortality rates in the areas where they worked. In fact, a retrospective mortality survey in Darfur conducted by MSF’s epidemiological research arm in Paris, called MSF Epicentre, had been published in *The Lancet* in October 2004.⁷⁸ Some MSF staff did not believe the methodology used to estimate the number of women seeking care following rape was rigorous enough because it was based, essentially, on patient self-report. However, the retrospective mortality surveys were also based on the accounts of those who survived—which were, in short, interviews. To impugn the credibility of victim and witness interviews in the case of rape could threaten to impugn the credibility of all epidemiological assessments that MSF conducted using the same type of data.

To understand the problem, it is instructive to consider the following comparison: the stark contrast between the language available to distinguish the fact of death from the cause of death. This distinction between fact and cause is conflated in the term *rape*. To maintain neutrality, MSF reports based on retrospective mortality surveys gave estimates of the number of dead

and how many of those deaths were the result of violence. For example, the MSF Epicentre article in *The Lancet* reported that 68%–93% of deaths among internally displaced persons in West Darfur between 2003 and 2004 were the result of violence and that most of those “killed” were adult men.⁷⁹ Similar language is not available in the case of rape; the term presupposes intent to harm and there is no ready alternative that does not cast doubt on victims.

Later in 2005, after the report’s release, representatives from MSF-France asked MSF-Holland to debate the report at an MSF internal general assembly meeting. Marc Dubois, head of the MSF-Holland Humanitarian Affairs Department, represented the Dutch section in the debate. Dubois later explained the problem of language and questions of evidence in the interview conducted in 2022 for the Speaking Out Case Study report on Darfur:

It’s interesting how these things become politicized inside MSF and how we are used and instrumentalized in all kinds of directions internally in the organization. . . . The same year [2005], MSF-France invited MSF-Holland to produce someone for the general assembly and have a debate about the report. I ended up going down there. There was quite a lot in there about the position that MSF-France was taking around *témoignage* [and] appeared to be, in short: “You have to limit *témoignage* to scientific evidence.” Literally what they were saying was: “We should release a report that talks about an outbreak of vaginal lacerations without using any kind of word about sexual and gender-based violence.” I saw in the audience a lot of women nodding. Men too, but a lot of women nodded right away. MSF-France was going too far. There was quite a debate of bringing *témoignage* back to a purely medical evidentiary exercise.⁸⁰

As Dubois pointed out, reference to an outbreak of “vaginal lacerations” was the presumptive parallel terminology to counting the dead. But to suggest a strictly empirical description of injury on the body would, in effect, erase the violence itself. The MSF-France leadership remained critical of the report, later calling for “careful scrutiny” of MSF-Holland’s data in the French section’s report on Darfur.⁸¹ The implicit questions raised—and not answered—by this debate were as follows: What *would* constitute so-called medical proof of rape? And under what conditions would such medical evidence even be available?

The controversies surrounding evidence that arose in the context of Darfur became increasingly evident as MSF began offering specialized medical care more routinely in settings of episodic armed conflict over longer periods of time. In these settings, as in the United States, the frequent absence or

ambiguity of medical evidence of rape—what I have termed the “knowledge problem” of rape kits and injury detection techniques—continued to surface, revealing the problematic assumptions and expectations built into the rape kit assemblage as it traveled. The context in which the rape kit assemblage was now operating was starkly different, to be sure, and indeed, its constituent material components and practices had necessarily been modified for the exigent conditions of humanitarian emergencies. However, the core evidentiary logic and imperative of the assemblage—to provide medico-legal evidence of rape—remained the same and, most importantly, produced the same probative paradox: becoming the means by which the very fact of rape could be called into question, rather than proved.

MSF’s work in the eastern region of the Democratic Republic of Congo (DRC, or Congo-Kinshasa), which I turn to next, highlighted in particular the ethical and epistemic dilemmas associated with providing medical certificates as a form of documentary evidence—particularly in the absence of clinical evidence of sexual assault—prompting these questions: documentary evidence of *what* exactly, and of value *for whom*?

CONGO-KINSHASA (2002–2014)

To my knowledge, MSF’s longest, continuously running programs to provide comprehensive post-rape medical care are in the eastern region of the Democratic Republic of Congo (DRC, also known as Congo-Kinshasa). The programs in the eastern DRC began shortly after the first program was established in Congo-Brazzaville. As noted above, MSF has one of the largest archives of patient medical certificates in the world, and many of them originate from this region.

The many strands of anti-rape and women’s health activism that coalesced in the 1990s to position violence against women as a focal point of institutional reform in medicine, law, and humanitarian aid quite literally came together in the field in the eastern region of the DRC in the early 2000s, during wars that engulfed the country and its neighbors between 1996 and 2002. Like Darfur, the eastern region of the DRC became the focus of a “discursive explosion” surrounding rape in war after events in Bosnia and Rwanda reignited concern following the Second World War.⁸² MSF has been one of the main providers of post-rape care in the region.

The DRC has been embroiled in political unrest and intermittent civil war since gaining independence from Belgium in 1960. This particular episode of conflict began when Laurent Kabila overthrew long-time military ruler Joseph Mobutu (aka Mobutu Sese Seko) in 1996, with the military backing of Rwanda and Uganda.⁸³ Soon thereafter, in 1998, war broke out between the DRC, Rwanda, and Uganda and escalated to involve several other countries, including Zimbabwe, Angola, and Namibia. In 2001, Kabila was assassinated, and his son Joseph Kabila assumed power and facilitated an international peace process to end the war. Peace accords were signed in 2002, which signaled a formal cessation of hostilities. However, intermittent fighting in the eastern region of the DRC continued as armed opposition groups vied for power.

In this section, I focus on MSF's work in the eastern region of the DRC between the official end of the regional war in 2002 and 2014. During this period, international donors funded mobile courts to hold armed actors accountable for sexual violence, even while parties to the conflict continued to commit sexual violence with impunity.⁸⁴ Several humanitarian aid organizations, including the world-renowned Panzi Hospital, led by future 2018 Nobel Laureate Dr. Denis Mukwege, operated dedicated programs to provide specialized post-rape medical care despite continuing, episodic armed conflict.⁸⁵ MSF's work in eastern DRC during this period illustrates not only the challenges of providing comprehensive post-rape medical care in the context of intermittent armed conflict, but also the problems of evidence that have emerged in these settings even when patients are able to seek medical care shortly after an assault.

The conflict in DRC's eastern region has been particularly intractable for a number of reasons. The fighting that led to genocide in Rwanda in 1994 spilled over the western border with the DRC as both refugees and militias responsible for genocide took refuge on the Congolese side of the border. Rwanda and Uganda, north of Rwanda and northeast of the DRC, have reportedly fought proxy wars by supporting militias operating in the region. Boundaries between authorized (government armies) and unauthorized combatants (militias) blurred and frequently shifted.⁸⁶ Former militia members have been integrated into the Congolese army, and army factions have defected to form militias, further exacerbating instability. In addition, bids to control mining for metals have fueled ongoing conflicts over access to land.

Cyclical violence continued to displace civilians, only a small fraction of whom lived in formally designated camps for internally displaced persons.⁸⁷ Amid this ongoing crisis and population displacement, fragile legal and health care institutions attempted to function. Humanitarian aid organizations operated alongside Congolese government agencies and hospitals. Hospitals and clinics treated patients and generated medical records, even when basic supplies were scarce and understaffing limited their ability to document cases. Police received crime reports, and, when possible, court magistrates adjudicated cases, even though police often did not have sufficient petrol to travel to crime scenes and often lacked pen and paper to record their investigations. While making do with limited resources, they remained constantly under threat of interference or attack by parties to the conflict.

Given the episodic unrest, MSF field staff in eastern DRC expressed concerns about issuing medical certificates to patients for use in domestic criminal cases because some feared being called to testify in court and facing retaliation by suspects. Their concerns prompted MSF to conduct an internal review to discern how many cases of sexual violence were proceeding to court. In the next section, I describe the results of the review. The results provide some of the best evidence available that the knowledge problem of the rape kit assemblage persists in settings of protracted armed conflict.

Medico-legal certificates and the knowledge problem of the rape kit assemblage

To assess how often patients seen by MSF staff pursued domestic court cases in the region, MSF initiated an internal, retrospective case review to determine if patients treated were going to court, if staff were being called to testify, and if there were any differences in case outcomes depending on whether or not a medical certificate had been issued. The review covered a two-year period prior to 2014. Part of the case review involved assessing what was recorded in the medical certificates. An expert in human rights, whom I will call Claudine, was familiar with the findings of the internal review and shared some of the challenges it revealed:

Very often in Congo, in the medical certificate [MSF] issue[s], there's in fact nothing to declare. In fact, the medical examination has no evidence. Nothing. So [MSF staff] know what the victim says, but doing the medical physical examination, there's no evidence. Because very often there is no violence, except that, you know, when you are forced, you are forced. But they

do not fight. The victim[s] do not fight. . . . So in fact in the medical certificate there's not a lot—even there's nothing. And the question is . . . what is a judge decision on that? What is a judge reaction on that? Very often he tried to get rid of the problem [by] saying, by asking the doctor to go to the court, and saying to the doctor, you have seen the victim, do you think she was raped? Because you were first to see her, what is your feeling? What do you think? And then [MSF] train[ed] the doctors: this is not your job. This is the job of the judge. But this is [the] type of question that the judge asked. Doctor, you are the one seeing this woman, so what do you think? Was she raped or not? . . . [Doctors] can explain what is written in the medical report and that's it. Because sometimes the terms are not clear. So this survey [MSF] did was very, very interesting, in fact, because medical certificate[s] are used, are used in court, and they are used in a very poor way. . . . And having a medical certificate was increasing . . . the fact that the perpetrator was sentenced. Which is in a way a problem because we don't know, we don't know about that, we don't know about the case. And as I explained to you, [MSF] do[es] the medical certificate on the systematic way, but there is very, very little physical evidence. Evidence of violence? There is none. On very young, young victims you can see that there's no more hymen, but it doesn't say so much. So it's . . . it's not easy. This has again, it's fueled my skepticism that medical certificate[s] will enable the fight against impunity. Because, again, the medical certificate that [MSF] do[es] on a systematic basis, [MSF staff] found very little in. And of course . . . the fact there is no physical evidence does not mean that there is no rape, depending on the duration between the date of the aggression and the date of medical examination, depending on the circumstances of the aggression—because if there were seven armed men, the victim [has] just to try not to fight. So depending [on] all that. But the fact is that in [MSF] medical certificate[s] there's very, very little physical evidence.⁸⁸

As Claudine emphasized, since MSF routinely issues medical certificates to patients, it has, in effect, an archive of patient data that have been systematically recorded during medical examinations following sexual assault. And as Claudine explained, this patient data revealed that very often there are no visible, physical clinical findings. She also said that this was true even when patients received treatment within seventy-two hours after the assault. In the vast majority of cases with a medical certificate on file, the staff had recorded the same finding in French: *rien à signaler*, or RAS, which means “nothing to signal” in English.⁸⁹

The absence of evidence can also lead judges, as the case review revealed, to ask the doctor to give an opinion on whether the woman was raped—to, in effect, request that the doctor decide the case. While doctors at MSF are trained not to answer this question and only testify to what they found,

there is pressure on medical personnel to give an opinion on whether rape occurred. And in some cases, judges have used the medical certificate as documentary evidence to convict, even absent other corroborating evidence, raising questions about due process and legal protections for defendants.

To my knowledge, this MSF internal, retrospective case review has not been made public. I have chosen to present the findings in general terms to illustrate that the problem of evidence persists in settings of protracted armed conflict. Indeed, the findings mirror the results of clinical research in high-resource settings, discussed in chapter 2.

This problem is not unique to sexual violence programs in eastern DRC. The frequent absence of clinical findings has raised the question within MSF of what to write on the medical certificate, especially when there are no physical, clinical findings to report. As one physician active with MSF at the time of the events in Congo-Brazzaville, whom I will call Alain, explained,

We *never* paid attention to sexual violences until we were in Congo-Brazzaville. . . . There was mass rapes. It was really terrible. It was, I mean, it was *overwhelmingly evident* that we had to do something for this. So we focused on the medical and psychological aspects of this. . . . But it became soon evident that there was something more to it. Like for instance, for all the women who didn't have any—for whom there was no clinical evidence—because that's the problem with the rape—it's a crime without evidence of the crime—or it *can* be—I mean, there can be evidences, there can be no evidences . . . for those ones it was a real issue because what could we write on the certificate? . . . Like for instance, a woman comes to us and says I've been raped, so you examine her, you do the clinical examination, you don't find anything evident, but you deliver a certificate stating that Ms. Such-and-Such has told you that in this place at this moment she was the object of sexual assault and she was raped, etc. So you see, you don't sort of endorse what the patient says. You take it seriously, but you don't endorse it. You state explicitly that you reproduce what the patient is telling you, but you are not saying this is true or this is not true. But it is kind of proof that this person came to see you, that was like 24 or 48 hours after the incident, and she was examined, and nothing was found, but this certificate was delivered. The idea of course was to be able to file a suit, to go to court, and try to convict the rapist. The other idea was a kind of institutional recognition of something which is just, you know, overlooked in general—[people say] “you don't pay attention to this,” “this is life,” “she survived,” “why bother,” etc. It was likely that for many women it really mattered to have this institutional recognition. Though we are not a government, we are not official. But in a way we are an institution, well-known, recognized as medical, as doing an important

medical work, so it's a kind of recognition, though it has nothing official. But in a way, yes. So these were the two aspects of it.⁹⁰

As Alain explained, MSF staff realized once they began issuing medical certificates to patients disclosing rape that often there was no visible, physical evidence of injury. The physician then had to report this fact of no clinical findings on the medical certificate.

MSF decided to issue medical certificates to all victims, even if there were no detectable clinical findings, in part because this documentation may be the only formal recognition that the victim may ever have. The physician notes that the patient sought medical care and records what the victim reported about the assault. As Alain described, although MSF was not a government actor and could not formally sanction the crime, the issuance of a medical certificate was still thought to be an important and symbolic act of recognition for victims.⁹¹

But by recording a patient's account, MSF was simultaneously creating documentary evidence. The medical certificate is evidence that the patient sought medical treatment on a particular day; it includes when the assault occurred and the patient's account of the assault. These details can be used as data to generate aggregate statistics, as MSF-Holland did in their report on rape in Darfur. Perhaps given the highly sensitive nature of clinical documentation of injury, as well as the challenge of ensuring that medical care is available shortly after an assault, articles published by MSF-Switzerland and MSF-Belgium on their sexual violence programs in eastern DRC did not provide detailed information on the nature or characteristics of injury recorded in patient medical records.⁹² Instead, these studies focused on the circumstances of the assault and whether or not care was received within the critical seventy-two-hour window after the assault.⁹³

Perhaps the best indicator that MSF staff recognize and seek to counter the unintended discrediting effect that absent evidence can have on patients is signaled on the MSF medical certificate itself. Like the sample medical certificate included in the first (and most recent) WHO-UNHCR guidelines,⁹⁴ the MSF certificate has a cautionary note at the bottom of the form that reads, "The absence of physical injuries does NOT exclude the possibility that an assault occurred as described by the patient."⁹⁵ Although most cases do not proceed to court, MSF staff are well aware that a certificate indicating *rien à signaler*, or "nothing to signal," can have an unintended discrediting

effect on survivors, despite the intention to provide formal recognition of harm. It is this apparent contradiction that makes the issuance of medical certificates so fraught: The very act of recording the survivor's account of the assault can, in fact, undermine their credibility if absence of evidence is conflated with absence of crime. In this way, although the circumstances and conditions in which post-rape care is administered in humanitarian settings are more difficult and the challenges of pursuing court cases are even more pronounced, the probative paradox at the heart of evidence collection routines remains the same across these vastly different contexts. This is why it is so important to publicly discuss the limitations of evidence and underscore the fact that absence of evidence does *not* indicate absence of crime.

MEDICO-LEGAL CERTIFICATES AS DOCUMENTARY EVIDENCE

The controversies discussed above illustrate how the ethical dilemmas surrounding dual obligations and the knowledge problem of rape kits and injury detection techniques—dilemmas already apparent, albeit underacknowledged, in high-resource settings—are amplified in situations of armed conflict. In these settings, state infrastructures of all kinds are often weak or nonexistent, and humanitarian aid workers may be among the only witnesses of war crimes. Host country governments have pressured humanitarian aid organizations to cooperate with domestic criminal legal systems to prosecute sexual violence as a crime under state penal codes—even when those same laws criminalize survivors who cannot prove rape, as was the case in Darfur. Human rights investigators have pressured aid workers to share confidential patient data, at times without patient consent, that might prove human rights violations have occurred. Yet patients may not wish to come forward, or if they do, they may be at risk of retaliation by parties to the conflict. There are generally no trusted victim and witness protection programs for those who choose to report. By the same token, field operations staff may also fear retaliation for providing medical evidence to patients or courts.

MSF's stated commitment to speaking out has in turn raised the problem of evidence in substantiating human rights violations, including those violations witnessed by staff. Evidence of rights violations and war crimes has been produced by MSF in a number of conflicts. Since the organization routinely

issues medical certificates to all victims of violence, including sexual violence, it has used its archive to document patterns of sexual violence in particular conflicts. The archive has also been used internally to assess the frequency of clinical findings following sexual violence. What this archive suggests is that clinical findings are often absent, even when victims seek care within seventy-two hours after the assault.

While the frequent absence of injury is well known by practitioners, many of my interlocutors emphasized that the real legal value of a medical certificate is its function as a form of documentary evidence that simply records the fact that someone reported being the victim of a sexual assault—“reported” in the informal sense of disclosing the information to MSF personnel, not necessarily “reported” to any official authorities. This may be especially important if it contains the most contemporaneous account available, meaning that it functions as the first formal record of what a survivor shared with someone working in an official capacity, in this case a health care provider. It may be particularly relevant if the survivor’s account was recorded shortly after the assault, rather than months or years later when criminal prosecution may become possible. In essence, the value of the medical certificate is its function as a record of the survivor’s account, irrespective of whether or not clinical findings were detected.

Given the many challenges that I have discussed, it is important to note that issuing medical certificates remains a contested practice. There are some within MSF who have asked, in essence, why, with such real risks and relatively uncertain benefits, does MSF nonetheless keep issuing the certificates? MSF’s provision of the certificates speaks *not* to any assurance on the organization’s part that the certificates will produce positive outcomes, but speaks rather to just how difficult the conditions they’re operating in are—where the recognition of harm that medical certificates may offer to survivors is existential/epistemic: Here is a document recording that you reported being raped. That reporting *happened*; it’s a fact. It may or may not have value for survivors, but it’s simultaneously and paradoxically the minimum MSF can do *and* the most they can do, from a legal perspective. For advocates of the certificates, doing *nothing*, not even recording what they’ve been told, itself feels like a purposeful form of inaction, a willful act of denial. Refusing to issue the certificates could foreclose the possibility of prosecution or access to alternative forms of redress, such as reparations, if and when those alternatives were to become available in the future.

CONCLUSION

The Probative Paradox and What Can Be Done

IN THIS BOOK, I have described how the rape kit and its associated assemblage of practices and protocols went from the margins to the center of health care responses to sexual violence. In the first part of the book, I described nurse activism in the United States for new standards of care that linked post-rape therapeutics and evidence collection. Medical guidelines served as a form of “soft” regulatory law that facilitated reform. Clinical guidelines and protocols codified the best practice standard of care for survivors of sexual violence, provided instructions for clinicians to follow (e.g., how to collect evidence, document physical injury, and administer post-rape therapeutics), and articulated in specific terms what is owed to patients. These protocols and guidelines, in turn, transformed the rape kit into an assemblage of objects, techniques, medical routines, and particular ways of thinking about sexual assault that, when taken together, introduced and instantiated new standards of medico-legal care for patient-victims. Through acute medical care and a standardized list of drugs to address the immediate, potential health impacts of rape, practitioners sought to minimize the physical, health-related harms that could result from rape, such as unwanted pregnancy and sexually transmitted infections, including HIV. Through forensic evidence collection and medical diagnosis of bodily injury, reformers hoped to facilitate legal redress if a patient wished to pursue prosecution. In this way, these medical guidelines and protocols have fundamentally transformed what has come to be understood as standard care for patients disclosing rape and sexual assault.

As nurses advocated for new standards, they also advocated for a new professional role as forensic examiners working at the interface of criminal law and clinical medicine. This new role carried with it the problem of dual obligations that occurred when nurse examiners’ obligations to a patient

conflicted with their obligations to the state. Dual obligations could create divided loyalties, which threatened to undermine the initial reform agenda predicated on supporting survivors. The evolving knowledge base surrounding the likelihood of injury detection and the likelihood of suspect DNA recovery revealed another contradiction embedded in the new standards of care, namely that rape kits and injury detection techniques often produce inconclusive evidence or fail to produce any evidence at all—what I call the knowledge problem of rape kits and injury detection techniques. Absent or ambiguous evidence, in turn, can have an unintended discrediting effect on survivors of sexual violence, which I refer to as the probative paradox.

In the second part of the book, I described how, as early as 2002, the linking of post-rape therapeutics and evidence collection was codified as a new international standard of care in international guidelines. As the problems of evidence became more widely acknowledged in the forensic nursing field in the early 2000s, women's rights activists had already begun working with the World Health Organization and the United Nations High Commissioner for Refugees to develop similar standards, using nursing guidelines as a model. I showed how, as a result, over the course of the past three decades, international organizations helped redefine a human right to health for survivors of sexual violence to include not only access to health care via administering post-rape therapeutics, but also documentation of harm via issuing patients medical certificates that record the survivor's account of the assault and any clinical findings. The logic was relatively simple: If people in general have a right to health, women who have been raped have similar entitlements, making the legal and medical protections afforded by rape kits and their protocols a dual imperative. These international developments created the conditions of possibility in which medical forensic exams—and by extension, the very discipline of clinical forensic medicine—were characterized as necessary to advance women's rights to justice and to health care.

Although these rights have been codified in international guidance documents, the administration of post-rape therapeutics is far more institutionalized in humanitarian settings than medico-legal documentation. Issuing medical certificates may be perceived as taking sides in an armed conflict, thereby jeopardizing medical neutrality and posing security risks to medical personnel and patients. To illustrate these tensions, I discussed the experiences of MSF in providing post-rape care and issuing medical certificates as documentary evidence of sexual violence through three historical case studies: the Republic of Congo (or Congo-Brazzaville) from 1998 to 2000;

the Darfur region of Sudan from 2003 to 2005; and the eastern region of the Democratic Republic of Congo (DRC, or Congo-Kinshasa) from 2002 to 2014. Dual obligations were not easily resolved in favor of patient rights and security, even when health care practitioners attempted to put patient interests ahead of state interests. In addition, MSF's archive of medical certificates suggests that very often there is no visible, clinical evidence of bodily injury recorded in these documents. In this way, medical certificates can have the same unintended discrediting effect on survivors that nurse reformers encountered in the United States.

WHAT WE LEARN FROM COMPARING THE US AND HUMANITARIAN CONTEXTS

I compare these two settings—the United States and humanitarian emergencies—to illustrate that, although the contexts differ in terms of resources available and the nature and scale of the violence in question, the problem of dual obligations and the knowledge problem of rape kits and injury detection techniques persist. It is true that the rape kit assemblage has multiple constituent parts that are arranged and rearranged across time and space. By using comparative and historical methods to “follow the object” across time and space, I not only trace the origins of the assemblage and the new ways of thinking that it represents, but I also show the work involved in making an object that spans two institutional spheres with discordant logics (medicine, law) travel transnationally. In essence, I seek to illustrate how the same problems arise in both contexts (dual obligations, the knowledge problem) but are amplified in humanitarian settings. Ultimately, one of the book's policy implications follows from this juxtaposition: The persistence of these problems across contexts prompts a reconsideration of the fundamental assumption baked into best practice standards of care that medical care and evidence collection should, in fact, be linked—an assumption that I return to below.

As the book's first part documents, the problems with the rape kit assemblage in the US context are three-fold: the competing aims and logics of medical care and criminal prosecution, the knowledge problem of rape kits and injury detection techniques that often fail to find probative evidence, and the probative paradox whereby the measures meant to support survivors can instead undermine them. Precisely because the prosecution of rape is more institutionally supported and materially feasible in the United States,

the internal contradictions of the rape kit assemblage manifest primarily in terms of legal implications and the assumption that the key question of victim consent can be settled by forensic evidence.

The problems with the rape kit assemblage in humanitarian settings shift in some ways and in other ways remain the same. Because a rape kit in the US sense of forensic evidence collection tools generally is not feasible and does not exist in humanitarian settings, emphasis shifts instead to rudimentary injury detection techniques, the provision of post-rape therapeutics, and formal documentation via medical certificates. In these settings, the knowledge problem inheres not in rape kits per se, but in the frequent failure of even the most basic examinations to find evidence of physical injuries. The subsequent discrediting effect of the probative paradox, however, remains the same, as does the clash of medical and legal imperatives—a disjuncture heightened and thrown into particularly sharp relief in politically volatile contexts where efforts to support survivors can endanger the operation of the very organizations seeking to support them.

LEGAL MOBILIZATION IN MEDICINE AND THE POLITICS OF KNOWLEDGE IN BIOMEDICINE AND GLOBAL HEALTH

To explain how the rape kit assemblage became a rights project in emergency medicine, I have argued that health care practitioners mobilized the law and novel conceptualizations of a human right to health to create a new standard of care for survivors of sexual violence, or what I call a process of legal mobilization in medicine. This framework suggests that standards developed at the interface of two institutional domains—clinical medicine and criminal law—are fundamentally hybrid and multiform, which derives from their constitutive disciplines and their respective systems of knowledge production. In addition, standards created to operate in the interstitial spaces of intersecting institutions—in this case, medicine and law—carry this hybridity within them as they travel transnationally.

In this framework, STS studies of health mobilization inform socio-legal studies approaches to legal mobilization by centering epistemic engagements in processes of standards adoption. Epistemic engagements were central to the process of transforming the rape kit into an *assemblage* of instruments, medical routines, and new ways of thinking about sexual assault. This conceptualization of the tool locates one of the unintended consequences of its

institutionalization as a function of the intrinsic ambiguity of clinical findings derived through medical examination, particularly when the underlying “condition” is precisely what is to be verified. Unlike autopsy, in which at least the fact of death is certain, the fact of rape or sexual assault is itself what is to be specified through proxy indicators—like symptoms can be used to rule in or rule out disease. This leads to the problem endemic to the exercise itself: There are few circumstances that would lead to definitive evidence, and even then, like all medical diagnoses, the physiological changes observed in the body require interpretation. In this way, uncertainty in medical diagnosis structures how we measure and decide the “reality” of a sexual assault.

By the same token, socio-legal studies scholarship informs STS studies of health mobilization by insisting on the constitutive role of law in the content and character of medical practice. Conceptualizations of rights, in turn, influence what types of interventions are attempted, not only to meet the requirements of law but also to promote symbolic attainment of rights, irrespective of whether or not cases are successful in court. In this book, I argue that practitioner-activists have attempted to promote legal redress through medical routines. They also seek to symbolically sanction crime through the process of evidence collection, even if cases do not go to court. For many practitioner-activists with whom I have spoken, the attempt to medically document rape is not just about establishing proof in the narrow criminal legal system’s sense of corroboration. It is also about what is owed to patient-victims and what may have psychological and emotional, if not probative, value for them. The act of medical documentation itself may signal to patient-victims that practitioners believe them, regardless of whether or not the cases go to court. Even symbolic implementation, in other words, might lead to an instrumental outcome: psychological and emotional healing for patient-victims.

Yet the invocation of criminal law has directed attention to evidence collection and informed the articulation of knowledge claims in ways that reinforce expectations of physical evidence that often are not met. Injury detection techniques involve diagnostic criteria and systems of classification that simultaneously reflect and create categories of physical injury, trauma, and violence. Criminal law became constitutive of clinical routines and, thereby, constrained both the production and interpretation of clinical knowledge about physical, bodily harm. Controversies surrounding the interpretation of clinical findings are, in part, struggles over how to make sexual violence legible through biomedical knowledge production.

There are many domains of health and medicine in which law is constitutive of what becomes understood as necessary, feasible, or possible. The present example of criminal law may seem most obvious with respect to the hegemonic influence of state penal codes, which high-profile contestations over legal restrictions on abortion and prescription pain medication have brought to the fore.¹ However, other domains of law, such as civil rights and regulatory law, can also shape medical practice, even when law's potential to create new legal obligations or new health care entitlements is not fully realized, as, for example, in trans health care and access to HIV treatment.² Intellectual property law fundamentally shapes all aspects of pharmaceutical drug, medical device, and vaccine markets, from development to distribution, including which diseases (or their risk factors) are selected for study in the first place and who ultimately has access to novel therapies—as both the HIV/AIDS and COVID-19 pandemics have made clear.³ Indeed, the Law and Political Economy movement in the US legal academy has sought to demonstrate the structuring role that law has in markets of all kinds, including health care and prescription drug markets.⁴ In this way, while the present study focuses on medical evidence of sexual violence, it calls attention to the need for much greater integration and dialogue among scholars engaged in socio-legal studies, STS, and social studies of health and medicine regarding the constitutive role of law in medicine.

In a broader sense, this study speaks to two countervailing forces that mark our present historical moment. On the one hand, we have seen the rise in governance by experts and expert systems, which puts political contestation over what we know and how we know it at the forefront of struggles for social justice. Health care practitioners, like other professionals, have sought to put their professional credentialing and expertise in service of human rights advocacy. On the other hand, we are witnessing a resurgence of contestations over the nature of facts and what counts as evidence in this so-called post-truth era. We see an explicit strategy of impugning experts to generate public suspicion of government and science for political ends. The question of what could or should count as evidence is at the heart of these controversies.

In a climate of increasing doubt—and yet with ever-increasing demands for certainty and proof—there are risks in exposing the limitations of rape kits and injury detection techniques in generating clinical evidence for fear of jeopardizing the institutional reforms through which the rape kit assemblage arose. As I have demonstrated, evidence collection has become part and parcel of the current standard of care. If we take away evidence collection,

will we be able to retain specialized medical care? If we take away evidence collection, will we foreclose the possibility of prosecution and conviction? Is there therapeutic value in evidence collection for patient well-being, even if the vast majority of cases do not proceed to court?

RETURNING TO WHAT'S AT STAKE
AND CHARTING A WAY FORWARD

To answer the questions that I have raised in this book requires a careful and nuanced approach. Precisely because survivors have different lived experiences and circumstances, I believe a survivor-centered approach is critically important. That means giving survivors choices about if and how to engage with both medical and criminal legal systems. There cannot be a one-size-fits-all approach. What works for one survivor may not work for another. In this concluding section, I return to what's at stake in asking the questions I have posed and offer my reflections on what we might consider in charting a way forward.

The juxtaposition of high- and low-resource settings suggests how challenges that have arisen in low-resource settings can offer guidance to practitioners in high-resource contexts. In many ways, the controversies surrounding medico-legal evidence collection to document sexual violence as a violation of international law have reopened debate about the wisdom of linking evidence collection and specialized medical care in the first place, a fundamental assumption on which these reforms were predicated. These same questions could be posed in the US context to help open dialogue on the problems and paradoxes of reform that I have outlined.

As scholars in women's, gender, and sexuality studies (WGSS) have argued, it is time to imagine what accountability and redress might look like outside of criminal legal systems.⁵ Criminal legal systems not only often fail to sanction sexual violence for many of the reasons discussed in this book, but also serve to reinforce punitive approaches to social problems that can eclipse or even preclude alternative approaches premised on collective care and support.⁶ As queer and trans activists and feminists of color have long said, sexual violence does not exist apart from other forms of violence, including state violence; indeed, in some cases, police, military, and immigration enforcement officers are responsible for sexual violence and other forms of violence against women.⁷ Furthermore, involving the police is a much more fraught endeavor

for survivors of color and undocumented survivors who must contend with the possibility of racist policing and immigration enforcement practices directed not only at themselves, but also at their families and communities.⁸ For these reasons, police investigation may pose additional harms to survivors, rather than offering protection as many prominent rape kit advocates intend.

Survivors, therefore, may not seek help or receive lifesaving medical care if it is conditional on engaging with law enforcement or filing a police report. In the United States, the 2005 reauthorization of the Violence Against Women Act mandated that survivors have access to a medical forensic exam even if they choose not to file a police report. However, many jurisdictions still use law enforcement funding to reimburse nurse examiners for the medical forensic exam, further blurring distinctions between medical care and police investigation. In addition, where mandatory reporting requirements exist in state penal codes, health care providers may be required to notify police of any suspected crime, including sexual assault disclosed by an adult patient, such that a survivor may be asked to speak to police even if the survivor does not wish to file a police report or pursue prosecution. In those jurisdictions, the only way for survivors to avoid engaging with police is to not disclose the assault; but then they may not have access to all of the recommended post-rape therapeutics.

In humanitarian settings, health care providers may also be required to comply with state mandatory reporting laws like those I discussed in chapter 4. Moreover, even when the provision of post-rape medical care is not contingent on survivors' reporting the assault, the continued provision of medical care can be potentially endangered by humanitarian organizations' recording of survivors' reports through medical certificates—hence the intense contestation around how those organizations can best serve survivors. But while the scale and the stakes of the ethical dilemmas associated with the rape kit assemblage are amplified and particularly visible in humanitarian settings, they are produced by the same fundamental problem: the frequent absence of clinical evidence of rape, and the potential for such absence to be interpreted as disproving survivors' accounts.

For all of these reasons, it is vital to consider how we might delink evidence collection from medical care and invest more resources in patient medical care and crisis support so that survivors have a true choice to receive lifesaving post-rape therapeutics without engaging with law enforcement. It is imperative that survivors should have access to free medical care, post-rape therapeutics, and mental health services in the aftermath of an assault. Perhaps it is time to shift time, energy, and resources to answering these

needs, rather than focusing so intently and optimistically on medico-legal tools and practices intended to further the prosecution of perpetrators, but which can undermine and even discredit survivors.

I realize that, for some, asking more questions than I answer will be unsatisfying. Still, in a case such as this, there *is* value in the raising of questions alone because the current and most prevalent thinking about rape kits is that they are an unqualified good, that if anything we need to administer and test more of them, and that their benefits should be exported. Asking questions about whether rape kits are actually working as intended is necessary precisely because it is unpopular and because hard-won gains are the hardest to scrutinize. As I explained in the introduction, one of my goals has been to disaggregate the rape kit assemblage into its component parts, so as to parse which elements are problematic from those worth preserving. There have inarguably been advances in the standards of care provided to survivors of rape, and determining whether those advances can be disentangled from less beneficial outcomes is an important task. Tracing back how the evidentiary and therapeutic elements of the rape kit assemblage became so enmeshed is a necessary first step. Then, having done that, we can rethink whether they necessarily have to proceed together.

Moreover, asking questions does provide some important answers, even if those answers raise still further questions. Rape kits and injury detection techniques very often do not provide the evidence promised. This is a fact. This does not mean they have no value and should therefore be dispensed with entirely. It is true that for some survivors, forensic medical evidence collection and injury detection techniques yield results that may lead to successful criminal prosecution. Survivors should be aware of this possibility—but they should also be aware of the *probability* of such a possibility. And since media representations rarely cover this, the burden falls to those involved with administering rape kits and their associated practices and protocols.

Medical professionals could, for example, more clearly distinguish between those elements geared toward collecting evidence and those focused on providing care. They could explain the goals of a medical forensic exam, but also let patient-victims know how often the exam fails to produce evidence. This would give survivors the opportunity to make an informed decision and would emphasize that an absence of evidence does not mean the assault did not happen. Explaining the probabilities and prognoses associated with medical exams and procedures is, after all, an expected and necessary part of any clinical encounter—why should this be any different when administering rape

kits? Such sharing of information by medical professionals is all the more necessary when popular discourse and media representations so often distort not only the phenomenon of rape itself, but also the ease of prosecuting it.

Similarly, but also quite distinctly, in humanitarian settings, those working for organizations like MSF already continually revisit the balance of risks and benefits involved in providing medical certificates. On the one hand, such certificates can provide documentary evidence of victims' accounts. On the other hand, in most cases, the certificates have to document the absence of clinical findings, which in turn could potentially be used not just to discredit but to prosecute and quite literally endanger survivors. The dilemma is one with which MSF personnel and others working with humanitarian aid organizations are all too familiar. But increasing public awareness of such difficult considerations is valuable because if the diffusion of the rape kit assemblage to conflict zones proves anything, it is the power of shifting attitudes toward and understandings of rape to change the practices of responding to it on the ground. In humanitarian settings, too, recognizing these limitations and the improbability of criminal prosecutions could redirect attention and support to the alternative response of reparations—something survivors of sexual violence in armed conflict have begun advocating as a form of redress that can provide resources and social support that survivors often need more immediately than prosecution.⁹

These discussions of the risks and benefits of issuing medical certificates would benefit from more research not only on how medical certificates are being stored, accessed, and used, but also on what they mean or come to mean, years afterward, to the various parties involved, including the patients who received them. For example, questions of documentary evidence quickly become questions of data and infrastructure. Even if a medical certificate primarily serves as documentary evidence of a survivor's account, it is not clear how often patients are able to access or use these records. Patients may not be able to store them safely themselves and would need to request them from the MSF archives in Europe in order to submit them as evidence in legal proceedings. Even if patients are able to store them safely themselves, MSF may be asked to produce its original copy of the medical certificate to verify the document's authenticity. This possibility requires storage of an original copy to which only MSF has access.

At present, the hard copies of these documents are evidently held in the headquarters offices in Europe. They have not yet been digitized because of

concerns about data privacy and security. The International Committee of the Red Cross's (ICRC) experience suggests caution. This organization stores individual data to facilitate family reunification. In 2022, ICRC records containing identifiable data on over 515,000 people, including those separated from their families, missing persons, and people in detention, were compromised, raising alarm about the increasing threats of cyberattacks on digital data archived by humanitarian aid organizations.¹⁰ There is also the looming threat of artificial intelligence and the generation of false records that require robust methods of verification to decipher. For now, MSF stores physical copies to avoid these risks.

But because speaking of risks and harm so often implies attributions of blame, it bears repeating that I refuse such a narrative when it comes to the past and present efforts to reform post-rape care. The point of this book has not been to impugn the efforts of reformers, practitioners, advocates, or activists—past or present, in the United States or abroad. That the institutionalization of the rape kit assemblage has had negative effects is not the fault of the nurses who fought for survivors' rights and a new standard of care, nor is it the fault of organizations like MSF, operating so often in settings where no one else will. In many ways, the problems of evidence that I have discussed in this book could not have been known until evidence was collected more routinely in both settings. Indeed, part of my purpose in following the rape kit assemblage as it has traveled, and for documenting in such detail *how* its contradictions have been reproduced over time and across contexts—whether in research studies seeking to establish patterns of injury or in the diffusion of a rights project to settings where rights themselves would seem most threatened—has been to establish a sum that cannot be reduced to its individual parts. Both halves of the book have been necessary to demonstrate that the knowledge problem and probative paradox of the rape kit assemblage are not tied to any one place and cannot be dismissed as a product of faulty implementation domestically or misguided application globally. The problem lies in how survivors' bodies are expected to serve as evidence, what we expect of that evidence, and what happens when it simply isn't there or is incapable of proving what we want it to. The problem lies in viewing rape as something for which evidence is the solution. We need to broaden our view and consider how best to support survivors in ways that center their individual needs and experiences, both within but also importantly beyond formal institutions of law and medicine.

NOTES

INTRODUCTION: WHAT IS A “RAPE KIT”?

1. See, e.g., Human Rights Watch, “I Used to Think the Law Would Protect Me.” On critiques of public discourse surrounding rape kit backlogs, see Quinlan, “Rape Kit’s Promise.”

2. See, e.g., Adlesic and Gandbhir, *I Am Evidence*, a documentary produced by celebrity and lead actress on *Law & Order: Special Victims Unit*, Mariska Hargitay.

3. I refer to individuals who have experienced sexual violence as either survivors of sexual violence, patients, or victims, in order to reflect the terms commonly used by anti-rape activists, health care professionals, and law enforcement officers, respectively. I also use the term *patient-victim* to signify that survivors are viewed simultaneously as patients and victims during medical forensic examination.

4. The Violence Against Women Act, or VAWA, first passed in 1994, required states to offer sexual assault medical forensic exams free of charge to all victims, as a condition of receiving federal funding. However, some law enforcement agencies required survivors to file a police report in order to receive a free exam. The 2005 VAWA reauthorization required states to offer the exam free of charge to all victims, regardless of whether they chose to report to police, also as a condition of receiving federal funding through VAWA. See, e.g., Zweig et al., “Who Pays.”

5. In this book, I focus on rape kits and injury detection techniques. It is important to note that false assumptions about how a survivor should behave after an assault, such as being visibly upset or crying, can also undermine the perceived credibility of survivors whose reactions do not conform to such expectations; see, e.g., Tuerkheimer, *Credible*, 80–83. In chapter 1, I discuss research conducted by nurse Ann Wolbert Burgess and sociologist Lynda Lytle Holmstrom in the 1970s that led to the nursing diagnosis Rape Trauma Syndrome, which delineated a wide range of emotional reactions to the trauma of sexual assault; see Burgess and Holmstrom, *Rape: Victims of Crisis*, 37–41. Anti-rape activists have endeavored to increase public awareness about the impact of trauma on survivors and to broaden otherwise narrow expectations of sympathetic or “credible” reactions to it. However, medical

forensic examination forms prompt examiners to record the patient's appearance and demeanor as part of the general medical examination. Given the sheer complexity of the human response to trauma, I do not discuss this aspect of the initial medical evaluation in detail.

6. In my analysis, I draw on Michelle Murphy's definition of the term *assemblage*, which she adapts from the work of Gilles Deleuze and Félix Guattari (*Thousand Plateaus*). Murphy's analysis is broadly Foucauldian, in that she is concerned with conditions of possibility that make some things sayable and perceivable and others not. However, she explains her choice to use the term *assemblage* instead of Michel Foucault's term *discursive formations* (*Archaeology of Knowledge*) in order to "emphasize the material culture of formations"; see Murphy, *Sick Building Syndrome*, 183 (n. 17).

7. It is important to emphasize that any one piece of evidence, on its own, cannot prove lack of consent; it must be placed in context through a broader investigation. There are other types of evidence that prosecutors can use to build a case, including texts, voicemails, and victim and witness statements about events that occurred before or after the assault.

8. Clarke, "Epilogue."

9. I characterize clinical guidelines as "political tools," not only from the vantage point of contested processes of standards adoption, but also as political in themselves due to their prescriptive function in directing medical action; see Timmermans and Berg, *Gold Standard*, 22.

10. Heimer and Morse, "Colonizing the Clinic."

11. I would like to thank an anonymous reviewer of my article in the history of science journal *Osiris* for suggesting this lucid characterization of the rape kit assemblage; see Morse, "Geopolitics."

12. I refer to women here in order to acknowledge that advocacy for cisgender women (i.e., those who identify with their sex assigned at birth) dominated the field in the 1970s, 1980s, and 1990s, and was organized in large part around the assumption that most survivors of rape were cisgender women. There was increasing attention to cisgender men and gay and lesbian survivors in the 1990s, but it was not until the past ten to fifteen years that there has been greater attention to transgender and non-binary survivors and gender-affirming care; see, e.g., Littel, *National Protocol* (2013), 38–39; Markowitz, *National Protocol*, 88–89. In this book, I focus on women's rights activism of the 1970s, 1980s, and 1990s because of its influence on the institutionalization of rape kits and what has come to be understood as the "best practice" standard of care. Unfortunately, I am not able to discuss the important history of activism to address the needs of cisgender men and queer and trans survivors. However, sexual assault can happen to anyone, regardless of gender identity or sexual orientation, and all survivors have a right to competent, trauma-informed health care.

13. See, e.g., World Medical Association, *Medical Ethics Manual*.

14. For an ethnographic account of MSF, see Redfield, *Life in Crisis*.

15. On the competing institutional logics of clinical medicine and criminal law in socio-legal studies, see Heimer, “Competing Institutions” and *Governing the Global Clinic*; Chiarello, “War on Drugs” and *Policing Patients*. When discussing the interface of medicine and law writ large, I use the term *institution* in the way that Heimer defines *institutional spheres* in “Competing Institutions,” 23, n5. On the ways that both clinical medicine and criminal law can operate as mechanisms of social control, see, e.g., Timmermans and Gabe, *Partners in Health, Partners in Crime*.

16. Feminist legal scholars have long critiqued the conflation of stranger rape with “real” rape (see, e.g., Estrich, “Rape”), as well as its impact on criminal case processing outcomes (see, e.g., Frohmann, “Discrediting Victims’ Allegations”).

17. For an account of Marty Goddard’s role in creating the Vitullo Kit, see Kennedy, *Secret History*. For a history of the advocacy of Citizens Committee for Victim Assistance for the Vitullo Kit in Chicago, see Shelby, “Whose Rape Kit?”

18. Goddard, “Oral History Project Interview.”

19. The Smithsonian’s National Museum of American History and Cooper Hewitt, Smithsonian Design Museum, acquired the Vitullo Kit in 2022 with support from the Smithsonian American Women’s History Initiative; see Smithsonian American Women’s History Museum, “Four Curators.” An article on the acquisition in the *Smithsonian Magazine* noted that “five Smithsonian units have formed ‘Marty’s Group,’ with the aim of spotlighting how Americans have combatted sexual assault through activism, political advocacy and artistic confrontation”; see Mufarech, “Invented.” It was included in the public exhibit “Forensic Evidence on Trial” that ran from June 2024 until July 2025 at the National Museum of American History; see <https://americanhistory.si.edu/explore/exhibitions/forensic-science-trial>. The object can be viewed online at https://americanhistory.si.edu/collections/object/nmah_2009657.

20. Also missing are figures like nurse Edith Rust, the founder of one of the first Sexual Assault Nurse Examiner (SANE) programs in Amarillo, Texas, who also created standardized evidence collection kits in the 1970s, with supplies available at the hospital where she worked (Frances interview). However, to my knowledge, Rust’s contributions have not been included in existing historiographies of rape kit activism—an occlusion that is, itself, a noteworthy part of that historiography.

21. Commercial entities, such as Sirchie and TriTech Forensics, sell prepackaged sexual assault evidence collection kits. The lists of contents available online demonstrate that present-day rape kits are essentially the same in terms of content and purpose as the Vitullo Kit. These companies also sell other tools, such as scales to measure the size of wounds and toxicology collection kits to test the victim’s blood or urine for presence of drugs if the assault was drug facilitated.

22. Then and now, rape kits contain instruments to collect biological specimens and physical debris. As before, semen can be used to establish recent sexual contact, and physical debris may link the victim to the suspect or the crime scene. Prior to the emergence of forensic DNA profiling, if a suspect’s blood or hair was found on the victim’s body, then blood type or hair type could be used as inclusion/

exclusion criteria. Today, biological specimens are still used as suspect inclusion/exclusion criteria, but now these specimens are potential sources of suspect DNA. DNA testing has evolved such that smaller samples can be used to generate a suspect DNA profile. On the history of forensic DNA profiling in US policing, see Aronson, *Genetic Witness*; Lynch et al., *Truth Machine*. For an ethnographic account of a forensic crime lab, see Bechky, *Blood*.

23. UNFPA supplies the kits under the guidance of the Inter-Agency Working Group on Reproductive Health in Crises. The official name for the UNFPA kits is the Inter-Agency Emergency Reproductive Health Kits for Use in Humanitarian Settings. There are several reproductive health kits that provide sexual and reproductive health care; Kit 3 is for post-rape treatment.

24. The first reproductive health kits for use in humanitarian emergencies were created in the 1990s; see UNFPA, *Manual* (2019), 4. After the first WHO and UNHCR (*Clinical Management of Rape Survivors*, 2004) guidelines were published in 2002 and revised two years later, a copy was included in UNFPA Reproductive Health Kit 3 for post-rape treatment; see, e.g., UNFPA, *Manual* (2011), 17. The most recent (sixth) edition of the UNFPA Kits was released in 2019. This Kit 3 includes a post-rape care checklist based on WHO and UNHCR guidelines, created by an international non-governmental organization named PATH; see UNFPA, *Manual* (2019), 31.

25. The first edition of the WHO and UNHCR guidelines was published in 2002 and revised in 2004 after field-testing. These guidelines were updated for the first time nearly two decades later; see WHO, UNFPA, and UNHCR, *Clinical Management of Rape and Intimate Partner Violence Survivors*. The content of the 2020 guidelines is essentially the same, with the substantive addition of attention to intimate partner violence.

26. McCann, “Law and Social Movements.”

27. Epstein, “Politics of Health Mobilization.”

28. Brown et al., “Embodied Health Movements.”

29. See, e.g., Burstein, “Legal Mobilization”; McCann, *Rights at Work*; Polletta, “Structural Context”; Rosenberg, *Hollow Hope*; Santos and Rodríguez-Garavito, *Law and Globalization*; but cf. Biehl et al., “Judicialization”; Kirkland, *Vaccine Court and Health Care*; Klug, “Access”; and McCann et al., “Criminalizing.”

30. See, e.g., Brown, “Popular Epidemiology: Community Response” and “Popular Epidemiology and Toxic Waste”; Epstein, *Impure Science and Inclusion*; Klawiter, “Racing”; Nelson, *Body and Soul*; but cf. Parthasarathy, *Building Genetic Medicine and Patent Politics*.

31. I would like to thank Sandra Levitsky for suggesting that my case fits within the framework of legal mobilization and health care reform; see Levitsky, “Integrating Law.” As Levitsky and Banaszak-Holl argue, the “multi-institutional politics” of health care reform involve not only the more traditional social movement targets of state policy and financing, but also health care professions, health care organizations, and, I argue, the content and character of medical practice itself; see Levitsky and Banaszak-Holl, “Social Movements”; also Armstrong and Bernstein, “Culture.” I define legal mobilization in medicine as practitioner-activists proactively invoking

law and rights to change the content and character of medical practice. In this case, hospitals and clinics offer a therapeutic setting in which early stages of criminal case processing can occur. Practitioner-activists have invoked law and rights in at least three ways: collecting evidence as a form of procedural justice necessary to facilitate prosecution; offering emergency contraception to promote reproductive rights; and providing antibiotics to treat bacterial sexually transmitted infections and post-exposure prophylaxis to prevent HIV infection in order to advance a human right to health.

32. See, e.g., Bumiller, *Abusive State*; Corrigan, *Up Against a Wall*; Davis et al., *Abolition*; Gruber, *Feminist War*; Hlavka and Mulla, *Bodies in Evidence*; Matthews, *Confronting Rape*; Mulla, *Violence of Care*; Musto, *Control and Protect*; Quinlan, *Technoscientific Witness*; Richie, *Arrested Justice*; and Sweet, *Politics of Surviving*.

33. See, e.g., Davis, *Making of Our Bodies*. These concerns extend to research, recognizing that scholars and their interlocutors are themselves implicated in the relationships of power and politics of place that they seek to study; see Grewal and Kaplan, *Scattered Hegemonies*.

34. See, e.g., Ferree and Tripp, *Global Feminism*; and Merry, *Human Rights*. On critiques of the incorporation of gender-based violence within human security discourses and global security politics, see, e.g., Abu-Lughod et al., *Cunning of Gender Violence*; Engle, *Grip of Sexual Violence*; Jaleel, *Work of Rape*; and Tripp et al., *Gender, Violence, and Human Security*.

35. For an ethnographic account of medical forensic examiners conducting autopsy, see Timmermans, *Postmortem*.

36. On histories of forensic medicine, see, e.g., Burns, "Sexual Assault"; Burney and Hamlin, *Global Forensic Cultures*; and Madea, *History of Forensic Medicine*.

37. See, e.g., Göksel and Morse, "Legal Exhaustion"; Long, "When Doctors Torture"; and Shalhoub-Kevorkian, "Imposition."

38. The distinction between refugee and internally displaced person is based on whether a person crosses an internationally recognized national border. People displaced *within* national borders (e.g., due to civil war) would legally be considered internally displaced.

39. I operationalize the *rape kit assemblage* as US nursing protocols for two reasons. First, nursing protocols not only specified the material aspects of the object (such as the forensic evidence collection kit, emergency contraceptive pills, antibiotics, antiretrovirals, and forms involved in post-rape care), but also articulated a new way of thinking about sexual violence that linked therapeutics and evidence collection as a new clinical standard of care. In this way, nursing protocols represented the new approach to rape that has been stabilized as best practice over the past five decades. Second, nursing protocols subsequently informed and were, in essence, codified in the first international guidelines published by WHO and UNHCR. The adoption of these international guidelines, in turn, facilitated the uptake of the rape kit assemblage in humanitarian medicine.

40. PubMed's online search engine can be found at <http://www.ncbi.nlm.nih.gov/pubmed/>.

41. UK FCO, *International Protocol*.
42. The National Criminal Justice Reference Service's online search engine can be found at <https://www.ojp.gov/ncjrs-virtual-library>.
43. As Epstein notes in his now classic formulation of AIDS activists as "lay experts" who challenged medical authority by asserting their own claims to privileged knowledge crucial to the design and regulation of clinical drug trials, the US feminist women's health movement in the 1970s was an important historical precursor that prefigured this turn to patient health activism in the United States; see Epstein, *Impure Science*. Feminist women's health activists challenged credentialed experts—usually doctors—by demanding recognition of women's knowledge of their own bodies as a type of embodied expertise in its own right; see, e.g., Davis, *Making of Our Bodies*; Murphy, *Seizing the Means*; and Ruzek, *Women's Health Movement*. Like feminist women's health activists, US anti-rape activists in the 1970s insisted that women's experiences of sexual violence should be the basis on which society should "know" and define different forms of violence against women; they also asserted that women could be just as effective as licensed professionals in supporting other women as peer counselors; see, e.g., Matthews, *Confronting Rape*. The origins of the US anti-rape movement in the same period as the feminist women's health movement, and the consciousness-raising groups and rape crisis centers that are two of its hallmarks, have left a lasting imprint on anti-rape activism.

I. NURSE ACTIVISM FOR "RAPE KIT" PROTOCOLS

1. As I noted in the introduction, I refer to women and use the pronoun *she* for patients to flag the explicit assumption in the 1970s, 1980s, and 1990s that most survivors of rape were cisgender women and that advocacy for women dominated the field. However, sexual assault can happen to anyone, regardless of gender identity or sexual orientation.
2. See, e.g., Corrigan, *Up Against a Wall*; Matthews, *Confronting Rape*; Spohn, "Rape Reform Movement."
3. See, e.g., Davis, *Making of Our Bodies*; Murphy, *Seizing the Means*; Ruzek, *Women's Health Movement*.
4. See, e.g., Lenahan et al., "Rape Victim Protocol."
5. See, e.g., Martin et al., "Controversies."
6. On the Vitullo Kit, see Kennedy, *Secret History*, and Shelby, "Whose Rape Kit?" The Vitullo Kit held by the Smithsonian can be viewed online at https://americanhistory.si.edu/collections/object/nmah_2009657.
7. Lois interview.
8. Kay interview.
9. See, e.g., World Medical Association, *Medical Ethics Manual*.
10. The 1970 booklet *Women and Their Bodies: A Course* and the first 1971 print edition titled *Our Bodies, Ourselves: A Course By and For Women* are the same text, but with different titles; Boston Women's Health Collective, *Women and Their*

Bodies. Therefore, the BWHBC considers both the 1970 booklet and the 1971 print edition to be the first edition. See the BWHBC website for more information on the evolution of the classic text *Our Bodies, Ourselves* and to download the full text of the first edition: <https://ourbodiesourselves.org/the-nine-us-editions>.

11. Correspondence and early drafts of chapters are archived in the BWHBC records collection at Schlesinger Library at the Radcliffe Institute for Advance Study.

12. BWHBC, *Our Bodies* (1973), 94.

13. BWHBC, *Our Bodies* (1976), 157. The first edition of the book published in 1970 and reprinted in 1971 did not include a chapter on rape. The second edition (1973) introduced a chapter on rape, which was retained in the 1976 and 1979 versions. Beginning with the 1984 edition, the authors expanded the chapter on rape to include other forms of violence against women. This broader language appeared in subsequent editions in the 1990s, with a slight change in title to the gender-neutral “Violence and Abuse” in 2005. The range of issues covered was in step with the changing discourse of the anti-rape movement to include all forms of violence against women.

14. Boston Area Rape Crisis Center, “Historic Highlights.”

15. BWHBC, *Our Bodies* (1976), 156–57.

16. BWHBC, *Our Bodies* (1976), 158.

17. BWHBC, *Our Bodies* (1976), 157.

18. BWHBC, *Our Bodies* (1976), 157.

19. BWHBC, *Our Bodies* (1976), 159.

20. Letter to Judy Norsigian, dated June 17, 1975, MC503 BWHBC, Carton 106.19, OBOS revisions, Corr., 1973–1976, BWHBC Records, Schlesinger Library, Radcliffe Institute for Advanced Study, Harvard University.

21. ACOG, “Suspected Rape.”

22. Burgess and Holmstrom, “Rape Trauma Syndrome.”

23. Burgess and Holmstrom, *Rape: Victims of Crisis*, 38.

24. Burgess and Holmstrom, *Rape: Victims of Crisis*, 38.

25. See, e.g., Tuerkheimer, *Credible*, 80–83.

26. Largen, “Anti-Rape Movement”; also Largen, “Rape-Law Reform.”

27. Burgess et al., “Forensic Nursing.”

28. Ledray, “Counseling.”

29. Ledray, “Sexual Assault Resource Service.”

30. Ledray, *Sexual Assault Nurse Examiner*.

31. Littel, *National Protocol* (2004); WHO, *Guidelines*.

32. ACEP, *Evaluation and Management*.

33. For the program in Texas, see White, “Rape: RNs Respond”; in Florida, see DiNitto et al., “After Rape”; in Tennessee, see Speck and Aiken, “20 Years.”

34. Jean interview.

35. Arndt, “Nurses Help.”

36. Arndt, “Nurses Help.”

37. For a history of forensic DNA profiling in US law enforcement, see, e.g., Aronson, *Genetic Witness*; Lynch et al., *Truth Machine*.

38. Ruth interview.
39. Ledray et al., "SANE."
40. Jean interview.
41. Abbott, *System of Professions*.
42. White, "Rape: RNs Respond."
43. Frances interview.
44. Moynihan and Duncan, "Role of the Nurse," 96.
45. Burgess and Holmstrom, "Rape Victim," *Rape: Victims of Crisis*, "Crisis and Counseling," "Sexual Assault"; Ledray, "Counseling," "Sexual Assault Nurse Clinician: A Fifteen-Year Experience," "Sexual Assault Resource Service"; Moynihan, "Sexual Assault Victims"; Moynihan and Coughlin, "Sexual Assault"; Moynihan and Duggan, "Rape Crisis Team."
46. Hammer et al., *Forensic Nursing*, xv–xvi.
47. See, e.g., Martin et al., "Controversies."
48. See, e.g., Ledray, "SANE Role."
49. Mary interview. On the history of the Nurse Practitioner movement in the United States, see Fairman, *Making Room*. On the history of nursing, see Reverby, *Ordered to Care*, and Hine, *Black Women in White*.
50. Lois interview.
51. Jean interview.
52. Jean interview.
53. Kay interview.
54. Kay interview.
55. See, e.g., Aiken and Speck, "Forensic Considerations"; Antognoli-Toland, "Comprehensive Program"; Ledray, "Sexual Assault Nurse Clinician: An Emerging Area," "Sexual Assault Evidentiary Exam"; Lenehan et al., "Rape Victim Protocol"; Osborn and Bryan, "Patient Care"; and Speck, "Memphis."
56. Ledray, "Sexual Assault Evidentiary Exam."
57. Ledray, *Sexual Assault Nurse Examiner*.
58. ACEP, *Evaluation and Management*.
59. Ledray et al., *Medical Response*, xiii.
60. Lynch, "Clinical Forensic Nursing."
61. Lynch, "Forensic Aspects," "Forensic Nursing: What's New?," and "Advances in Forensic Nursing."
62. Ledray et al., "SANE."
63. Jean interview.
64. Mary interview.
65. My field notes, 2012.
66. ANA and IAFN, *Forensic Nursing*, 16.
67. Office for Victims of Crime, *SANE Program*. The 2016 updated SANE guide was the first revision since Ledray originally published the guidelines in 1999 and is only available online.
68. See ANA and IAFN, *Forensic Nursing*.
69. Burgess et al., "Forensic Nursing."

70. Slaughter, "Chapter 67."
71. Heimer, "Competing Institutions."
72. Mulla, *Violence of Care*.
73. Corrigan, *Up Against a Wall*.

2. THE KNOWLEDGE PROBLEM OF "RAPE KITS" AND INJURY DETECTION TECHNIQUES

1. As I noted in the introduction, I refer to women and use the pronoun *she* for patients to flag the explicit assumption in the 1970s, 1980s, and 1990s that most survivors of rape were cisgender women and that advocacy for women dominated the field. However, sexual assault can happen to anyone, regardless of gender identity or sexual orientation.

2. See, e.g., Wells, "Sexual Assault."

3. For more information about CODIS, see Congressional Research Service, *Use of DNA*, 2–6.

4. On the history of rape law reform in the United States, see Corrigan, *Up Against a Wall*; Spohn, "Rape Reform Movement."

5. In this book I focus on medical forensic exams for adult and adolescent victims of sexual assault. If a suspect is in custody, a similar medical forensic exam for suspects may also be conducted. Nurse examiners can perform exams on both victims and suspects.

6. Slaughter et al., "Patterns."

7. Rape in marriage was generally not recognized as a crime.

8. After rape law reforms in the 1970s, new criminal penal codes distinguished between felony and misdemeanor crimes of rape and sexual assault. A key distinction in charging suspects had to do with whether the alleged sex act involved vaginal, anal, or oral penetration with genitalia or objects. If ano-genital injury could establish that penetration occurred, then prosecutors could charge a suspect with the more serious crime of rape rather than a lesser crime of unwanted sexual contact that stopped short of penetration; see Long et al., *Establishing Penetration*. In practice, this meant that nurses attempted to document physical indications of what type of sex act had occurred and whether it involved attempted or completed penetration.

9. Burgess, *Rape and Sexual Assault*; Burgess and Holmstrom, *Rape, Crisis and Recovery*.

10. Burgess and Holmstrom, "Sexual Assault"; Tucker et al., "Sexual Assault."

11. See, e.g., Crowley, *Sexual Assault*; Girardin et al., *Color Atlas*; Henry, *International Association*; Ledray et al., *Medical Response*.

12. Lois interview.

13. Littel, *National Protocol* (2013), 8.

14. National Institute of Justice, *National Best Practices*, 17–18.

15. Jean interview.

16. Slaughter and Brown, "Cervical Findings" and "Colposcopy"; Slaughter et al., "Patterns."
17. See, e.g., O'Brien, "Improved."
18. See, e.g., Patel et al., "Colposcopy."
19. See, e.g., Sommers and Fargo, "Discriminating"; Sommers et al., "Forensic Sexual Assault"; Zink et al., "Comparison."
20. See, e.g., Faugno et al., *Assault Histories and Nonassault Variants*.
21. Ruth interview.
22. Lois interview.
23. Slaughter et al., "Patterns."
24. Masters and Johnson, *Human Sexual Response*.
25. Masters and Johnson, *Human Sexual Response*, 5.
26. See, e.g., Quinlan, "Sexual Science," 384–85; Stiritz and Appleton, "Celebrating," 75. The sexual revolution, however, was not for everyone: Masters and Johnson's later research on homosexual men (*Homosexuality in Perspective*) involved "reorientation" or conversion therapy and received largely negative reviews when it was published over a decade later; see Waidzunas, *Straight Line*, 76–77. The public interest in and influence of their work in general, nonetheless, remains significant, as evidenced by Amazon's 2013 dramatized miniseries titled *Masters of Sex*, based on Thomas Maier's 2009 biography of the same name.
27. Girardin et al., *Color Atlas*, 13.
28. Girardin et al., *Color Atlas*, 12.
29. Slaughter, "Medical Examination."
30. Crowley, *Sexual Assault*.
31. Crowley, *Sexual Assault*, 58, emphasis in original.
32. Lynch, *Forensic Nursing*.
33. Ledray, "Sexual Assault," 281.
34. Ledray, "Sexual Assault," 282.
35. Lynch, *Forensic Nursing Science*.
36. Ledray, "Sexual Violence," 384.
37. Slaughter et al., "Patterns."
38. See, e.g., Mahar et al., "Orgasm Equality." For a critical discussion of research on sexual satisfaction, see McClelland, "Intimate Justice."
39. See, e.g., Postma et al., "Pelvic Floor."
40. Markowitz and Pierce-Weeks, "Consensual," 84.
41. The studies presented in Markowitz and Pierce-Weeks's table 5-1 included Anderson et al., "Genital Findings" and "Changes"; Fraser et al., "Variations"; Jones et al., "Anogenital"; Lauber and Souma, "Use"; McLean et al., "Female"; Norvell et al., "Investigation"; Slaughter et al., "Patterns"; Sommers et al., "Forensic"; and Zink et al., "Comparison."
42. Markowitz and Pierce-Weeks, "Consensual," 90.
43. Brown et al., "Body Injury," 81.
44. Basson, "Female Sexual Response"; Paul, "Medico-Legal Examination."
45. See, e.g., Coeling, *Role*.

46. See, e.g., Coeling, *Kristen*.
47. LaMonica and Pagliaro, "Sexual Assault" (2006), 572.
48. LaMonica and Pagliaro, "Sexual Assault" (2013), 369.
49. Faugno et al., *Assault Histories*, vii, and *Nonassault Variants*, vii.
50. Faugno et al., "Adults," 123.
51. Faugno et al., "Physical Evaluation," 182.
52. Sommers et al., "Effects."
53. Sommers et al., "Effects," 200–201. The terms *bruising*, *abrasions*, and *swelling* refer to three of the five different types of ano-genital injury outlined in the TEARS typology (tears, ecchymosis [bruising], abrasions, redness, or swelling) that Slaughter and her coauthors had introduced in their oft-cited, case-control study on recording ano-genital injury with colposcopy; see Slaughter et al., "Patterns," 610. While Slaughter and her coauthors had left these terms undefined in their original paper, Sommers and her colleagues operationalized the TEARS typology for their research purposes by creating more detailed definitions; see Sommers et al., "Effects," 202. Tears were defined as breaks in tissue (skin and mucous membrane) integrity, including fissures, cracks, lacerations, cuts, gashes, or rips. Ecchymosis was defined as skin or mucous membrane discoloration due to the damage of small blood vessels causing "bruising" or "black and blue" areas. Abrasions were defined as excoriations or the removal of the epidermis from skin or mucous membranes. Redness was used as a descriptor for erythematous tissues that were abnormally inflamed because of irritation. Swelling was defined as local edema or transient engorgement of the tissues.
54. Sommers et al., "Effects," 206.
55. Sommers et al., "Effects," 206.
56. Baker et al., "Source."
57. Sommers et al., "Forensic" and "Understanding."
58. Sommers et al., "Forensic."
59. Baker et al., "Source."
60. Sommers et al., "Understanding." I would like to note that the Sommers et al. paper "Forensic Sexual Assault Examination" (2008) seems to be virtually identical to Sommers et al., "Health Disparities" (2009), but the two were published as separate papers in different journals. Therefore, I have only cited the 2008 paper here.
61. Sommers et al., "Understanding," 121.
62. Sommers et al., "Understanding," 121.
63. Sommers et al., "Understanding," 121.
64. Slaughter cautioned, "The FE [forensic examiner] should not conflate sexual response, consent, and injury; genital injury is not an ineluctable consequence of sexual assault. Currently, there is still no finding or group of findings that can differentiate consensual from nonconsensual sex, and more research is underway"; Slaughter, "Chapter 67," 865.
65. Ruth interview.
66. *Commonwealth v. Johnston* (2000) is an unpublished court case. I retrieved the Circuit Court of Virginia Opinion through Westlaw, a database that lawyers use

for legal research. Only the Westlaw citation is available: Not Reported in S.E.2d, 2000 WL 33177221.

67. Commonwealth v. Johnston, 2000 WL, 1.

68. The defense cited Slaughter and Brown, “Cervical Findings” and “Colposcopy”; and Slaughter et al., “Patterns.”

69. Commonwealth v. Johnston, 2000 WL, 3, citing Slaughter et al., “Patterns,” 615.

70. Commonwealth v. Johnston, 2000 WL, 4.

71. Commonwealth v. Johnston, 2000 WL, 4.

72. Commonwealth v. Johnston, 2000 WL, 4.

73. Anderson and Sheridan, “Female.”

74. Anderson and Sheridan, “Female,” 521.

75. Anderson and Sheridan, “Female,” 521.

76. Long and Matthews, *AEQUITAS*.

77. Markowitz and Pierce-Weeks, “Consensual.”

78. Markowitz, *Absence of Anogenital Injury*.

79. Markowitz and Scalzo, *Understanding Anogenital Injury*.

80. Markowitz and Scalzo, *Understanding Anogenital Injury*, 1.

81. Lois interview.

82. National Research Council, *Strengthening Forensic Science*, 6–7.

83. National Research Council, *Strengthening Forensic Science*, 100–101.

84. See, e.g., Anderson and Sheridan, “Female,” 521.

85. Brown et al., “Body Injury,” 81.

86. Slaughter et al., “Patterns,” 609.

87. Slaughter et al., “Patterns,” 610.

88. Ledray, “Sexual Assault,” 281, and “Sexual Violence,” 383.

89. Planty et al., *Female Victims*. The National Crime Victimization Survey (NCVS) is conducted annually by the US Census Bureau for the Bureau of Justice Statistics. It is a self-report survey that collects information on nonfatal crimes, including both those reported and not reported to police, from a nationally representative sample of persons aged twelve or older who live in US households. Respondents are interviewed every six months over three years. The first interview is conducted in person and follow-up interviews are conducted either in person or by phone. For additional information on the survey methodology, see Planty et al., *Female Victims*, 9.

90. Planty et al., *Female Victims*, 4. The report presents data on individual incidents of victimization, not on individual victims.

91. The National Violence Against Women Survey (NVAW) was conducted in 1995–1996 jointly by the CDC and the National Institute of Justice. It was a self-report survey that collected data on violence against women, including child abuse, sexual violence, stalking, and intimate partner violence, from a nationally representative sample of adults in the United States; despite the name, this sample included women and men. The survey was conducted by telephone. A total of

eight thousand women and eight thousand men, aged eighteen and older, were interviewed. For additional information on the survey methodology, see Tjaden and Thoennes, *Full Report*, 3.

92. Tjaden and Thoennes, *Prevalence*, 1.

93. Tjaden and Thoennes, *Full Report*. The report presented data on individual victims.

94. Tjaden and Thoennes, *Full Report*, 35.

95. Tjaden and Thoennes, *Full Report*. The initial 1998 report on the NVAW survey estimated that while 14.1% of women were raped or physically assaulted by a stranger, a much higher percentage of men (60%) were raped or physically assaulted by a stranger; see Tjaden and Thoennes, *Prevalence*, 8. This statistic combines rape and physical assault and therefore is not directly comparable to the NCVS or NISVS estimates that are specific to rape and sexual assault and exclude other forms of physical assault. However, the later full report (published in 2000), used the same data to provide estimates of the proportion of respondents who were raped by a stranger, disaggregated by the age of the respondent's first rape (before or after age eighteen); see Tjaden and Thoennes, *Full Report*.

96. The National Intimate Partner and Sexual Violence Survey (NISVS) is a self-report survey that collects data on sexual violence, stalking, and intimate partner violence from a nationally representative sample of adults in the United States. The survey is conducted by telephone (landline and cell phone) in English and Spanish. It was launched in 2010. The statistics presented in the text are taken from an analysis of the 2016/2017 administrations of the survey after changes were made to the survey instrument. For additional information on the methodology, see Basile et al., *National Intimate Partner*, 2.

97. Basile et al., *National Intimate Partner*, 7. The report presents data on individual victims.

98. Joyful Heart Foundation, *State of the Backlog*. The report is only available online.

99. Congressional Research Service, *Use of DNA*, 20; see also Congressional Research Service, *Sexual Assault Kits*.

100. Office of Manhattan District Attorney, *Test Every Kit*, 1.

101. The FBI determines the criteria for DNA profiles to be eligible for upload to CODIS that involve quality control measures and legal considerations. For a discussion of what constitutes a CODIS-eligible profile, see the US Department of Justice, Federal Bureau of Investigation, Frequently Asked Questions on CODIS and NDIS, available at <https://www.fbi.gov/how-we-can-help-you/dna-fingerprint-act-of-2005-expungement-policy/codis-and-ndis-fact-sheet>. For a useful at-a-glance explanation of DNA testing of rape kits, see the Sexual Assault Kit Initiative and RTI International one-page fact sheet available at <https://sakitta.org/resources/docs/DNA-Testing-101-Sexual-Assault-Kits.pdf>. For a discussion of CODIS and CODIS-eligible profiles, see Congressional Research Service, *Use of DNA*.

102. Some studies report both conditional and unconditional rates; see Wells et al., “Results.”

103. But see, e.g., Peterson et al., *Sexual Assault Backlog*; Wells et al., “Results.” For example, in the Houston study, Wells et al. reported that 336 of the 491 kits in the sample (68.4%) screened positive for biological evidence with potentially probative value, and a DNA profile was developed in 270 of the 491 kits in the sample (55.0%); however, only 213 of the 491 kits (43.0%) had a DNA profile eligible for upload to CODIS; see Wells et al., “Results,” 131.

104. As noted above, I report the unconditional rates. The conditional rates would suggest that, of those kits with a CODIS-eligible sample, about half generated a match in CODIS.

105. But see Peterson et al., *Sexual Assault Backlog Study*, 67–68 and 88–89. The study in Los Angeles indicated that the likelihood of finding foreign DNA decreased as the amount of time between the assault and the medical forensic examination increased, referred to as the post-coital interval (see, e.g., tables 15 and 26).

106. Wang et al., “Cost-Effectiveness.”

107. See, e.g., Wells et al., “Results”; Peterson et al., *Sexual Assault Backlog*.

108. Office of Manhattan District Attorney, *Test Every Kit*, 19.

109. Campbell et al., “Tested.” The initial federal grant in Detroit involved testing 1,595 kits, which produced 785 CODIS-eligible DNA profiles (49.2%) and 455 CODIS hits (28.5%); see Campbell et al., *Detroit*, 303.

110. The study authors reported the CODIS yield rates for stranger and non-stranger cases in a separate paper: 239 of 445 stranger cases (53.7%) and 180 of 449 non-stranger cases (40.1%) yielded CODIS-eligible profiles; see Campbell et al., “Should Rape Kit Testing,” 570.

111. Clarke and Fujimura, *Right Tools*.

3. SEXUAL VIOLENCE AS A PROBLEM OF GLOBAL HEALTH GOVERNANCE

1. See, e.g., Merry, *Human Rights*.

2. WHO, *Guidelines*.

3. WHO-UNHCR, *Clinical Management* (2004).

4. Ferree and Tripp, *Global Feminism*; Tinker and Jaquette, “UN Decade for Women.”

5. The Vienna Declaration had codified violence against women as a human rights violation in 1993; see UNOHCHR, *Vienna Declaration*.

6. UN Women, *Beijing Declaration*.

7. For family planning, see UN, *Convention on the Elimination*; for safe maternity and freedom from gender-based violence, see UNGA, *Declaration*, and UNOHCHR, *Vienna Declaration*.

8. UNFPA, *International Conference*.

9. UNFPA, *Manual for Inter-Agency* (2008), 4.
10. UNHCR, *Reproductive Health*.
11. UNFPA, *Manual for Inter-Agency* (2008), 17. As discussed in the introduction, in humanitarian contexts, the UNFPA Reproductive Health Kit 3 for post-rape treatment does not include swabs for collection of biological specimens. Instead, it includes the drugs needed to provide medical care if a survivor reports shortly after the assault.
12. FIGO, *Resolution on Violence*.
13. I invoke Foucault's term *discursive explosion* to describe the proliferation of discourse on sexual violence in armed conflict in the 1990s that fundamentally transformed international institutions, including WHO and UNHCR, in regard to their responses to rape in humanitarian emergencies; see Foucault, *History of Sexuality*. For a critical account of this discursive explosion around sexual violence in armed conflict, see, for example, Engle, *Grip of Sexual Violence*; Jaleel, *Work of Rape*; and Abu-Lughod et al., *Cunning of Gender Violence*.
14. See, e.g., Halley, "Rape in Berlin."
15. For example, women's rights activists critiqued the failure to prosecute Japanese commanders for the sexual enslavement of the so-called comfort women during World War II. Activists formed the Women's International War Crimes Tribunal to remedy this omission from the historical record that had been created by the Tokyo war crimes tribunal. In 2000, the women's tribunal held a symbolic trial for survivors from North and South Korea, China, Taiwan, the Philippines, Malaysia, Indonesia, and the Netherlands to testify and enter formal evidence of these war crimes; see, for example, Durham and Loff, "Japan's 'Comfort Women,'" and Chinkin, "Women's International Tribunal." More recently, American historian Mary Lou Roberts has documented rape of French civilians by American soldiers in Normandy, challenging the historical record and naming Americans as perpetrators at the end of the war; see Roberts, *What Soldiers Do*.
16. See, e.g., Engle, "Feminism"; Hagan, *Justice in the Balkans*; Halley, "Rape at Rome."
17. Sellers, "Gender Strategy."
18. Askin, "Decade of the Development."
19. ICC, *Rome Statute*. The Rome Statute was adopted July 17, 1998. The full text can be found at <http://www.icc-cpi.int/resource-library/documents/rs-eng.pdf>.
20. For Widney Brown's reflections on her career, see Brown, "Reflections." The archives of New York Women Against Rape are held at the Schlesinger Library at the Radcliffe Institute at Harvard University.
21. Brown, *Obstacles to Women*.
22. The country case studies in the report included Brazil, Peru, Pakistan, Russia, South Africa, Turkey, and the United States.
23. Leslie interview.
24. Brown, *Obstacles to Women*.
25. Ledray, "Sexual Assault Evidentiary Exam and Treatment Protocol."
26. Thomas interview.

27. Wells, "Sexual Assault."
28. WHO, *Guidelines*, 142–44.
29. WHO, *Guidelines*, 28–29.
30. WHO-UNHCR, *Clinical Management* (2002).
31. As mentioned in the introduction, the first WHO-UNHCR *Clinical Management of Rape Survivors* guidelines document was published in 2002 for pilot testing; see WHO-UNHCR, *Clinical Management* (2002). It was then revised based on the results of that testing and published in 2004; see WHO-UNHCR, *Clinical Management* (2004). It was not updated again until 2020, at which point UNFPA was also added as an author; see WHO-UNFPA-UNHCR, *Clinical Management of Rape and Intimate Partner Violence Survivors*. The minimum standards outlined in the 2020 edition are essentially the same as those in the 2004 edition, but with the substantive addition of attention to intimate partner violence.
32. UNHCR, *Sexual Violence*.
33. UNHCR, *Prevention and Response*, 18.
34. Audrey interview.
35. Helen interview.
36. Helen interview.
37. WHO-UNHCR, *Clinical Management* (2004), 12.
38. The 2004 WHO-UNHCR guidelines noted that some countries required medical certificates in order for a case to be heard in local courts; see WHO-UNHCR, *Clinical Management* (2004), 14.
39. UNFPA, *Manual for Inter-Agency* (2008), 17. As noted in the introduction, the most recent (sixth) edition of the UNFPA Kits was released in 2019. This Kit 3 includes a post-rape care checklist based on WHO and UNHCR guidelines, created by an international nongovernmental organization named PATH; see UNFPA, *Manual for Inter-Agency* (2019), 31.
40. Prior to widespread availability of prepackaged emergency contraceptive pills, the WHO and UNHCR guidelines gave instructions for how to use regular birth control pills for emergency contraception; see WHO-UNHCR, *Clinical Management* (2004), Annex 11.
41. Scott et al., "Gender-Based Violence," 91–92.
42. As noted above, the WHO-UNHCR guidelines were updated in 2020 for the first time since 2004 and included attention to intimate partner violence; see WHO-UNFPA-UNHCR, *Clinical Management of Rape and Intimate Partner Violence Survivors*.
43. UN Women et al., *Essential Services*; UNODC et al., *Strengthening*.
44. Duroch and Schulte-Hillen, "Care for Victims."
45. Lynn interview.
46. The results of an international case-control study demonstrated the efficacy of zidovudine (also known as AZT) in reducing risk of HIV transmission after occupational exposure to blood among health care workers; see CDC, "Case-Control." This prompted the US Centers for Disease Control and Prevention to

revise its guidelines on prophylactic treatment after occupational exposure in 1996. The recommended antiretroviral drug regimens evolved over time.

47. The WHO-UNHCR guidelines were in development during the height of transnational activism to ensure access to generic antiretroviral drugs in low-income countries with generalized HIV epidemics. The WHO-UNHCR expert working group on post-rape medical care was established in response to the Inter-Agency Lessons Learned Conference: Prevention and Response to Sexual and Gender-Based Violence in Refugee Situations, held March 27–29, 2001, in Geneva, Switzerland. This expert working group was convened shortly after the XIII International AIDS Conference in 2000 in Durban, South Africa. It began its work amidst global HIV/AIDS treatment activism, which ultimately led to the November 2001 Doha Declaration issued by the World Trade Organization that reaffirmed the right of member states to contravene patent rights if necessary to address major health threats. For a history of the global access to medicines movement for generic, low-cost antiretrovirals in high-burden countries, see Kapczynski, “Access.” For a history of the broader access to knowledge movement, see Krikorian and Kapczynski, *Access to Knowledge*.

48. Singh et al., “Long Way.”

49. WHO, *Responding*, 11. For the latter claim, the document cited AuCoin, *Family Violence*; Tjaden and Thoennes, *Full Report*; Walby and Allen, *Domestic Violence*.

50. The terminology to refer to patients who identify as queer or transgender varies. For example, the International Organization for Migration (IOM, or UN Migration) published a glossary of terms that includes LGBTI (lesbian, gay, bisexual, transgender, and intersex) and SSOGI (sex, sexual orientation, and gender identity); see IOM, *International Migration*.

51. WHO-UNFPA-UNHCR, *Clinical Management of Rape and Intimate Partner Violence Survivors*, 4.

52. WHO, *WHO Handbook*, 169.

53. For details of the new evidence rating system, see WHO, *WHO Handbook*. The 2014 handbook (second edition) included thirteen chapters at the time of publication; five additional chapters were added after publication and are available only online at <https://iris.who.int/handle/10665/145714>. One of these online-only chapters (chapter 14) is titled “Strong Recommendations When the Evidence Is Low Quality” and addresses the problem of “discordant” recommendations (i.e., when a “strong” recommendation has low or very low quality of evidence available to support it); see WHO, *WHO Handbook*, 169–82.

54. In the WHO 2013 *Responding to Intimate Partner Violence and Sexual Violence Against Women: WHO Clinical and Policy Guidelines* document, available evidence was rated as “very low, low, moderate, or high” quality or as “indirect evidence” if the study population was not the same as the target patient population for the guidelines or if the experts relied on preexisting guidelines as the basis for a recommendation; see WHO, *Responding*, 13. For some recommendations, “no relevant evidence was identified” and this was indicated. In the same document, the

expert working group indicated “strong” if they agreed that “the recommendation would be of near universal benefit” or conditional if “there were caveats on its benefit in different contexts”; see WHO, *Responding*, 14.

55. WHO, *Responding*, 25–33.

56. WHO, *Responding*, 25.

57. WHO, *Responding*, 34. This recommendation in figure 2 (the care pathway for a woman presenting for sexual assault), in effect, endorsed medical documentation of both the patient’s account of the assault and injury; however, it stopped short of recommending a forensic exam.

58. WHO-UNHCR-UNFPA, *Clinical Management of Rape Survivors*.

59. WHO, *Responding*, 11.

60. To my knowledge, the WHO 2003 general medico-legal guidelines have not been updated, but are referenced in subsequent guidance documents like this one. The one exception is the WHO-UNFPA-UNHCR 2020 update to the 2004 humanitarian guidelines that only directly references the newly available WHO 2013 document (but not the WHO 2003 general medico-legal guidelines).

61. WHO, *Responding*, 3.

62. WHO, *Responding*, 12.

63. WHO-UNHCR, *Clinical Management* (2002).

64. Helen interview.

65. WHO-UNFPA-UNHCR, *Clinical Management of Rape and Intimate Partner Violence Survivors*, 4.

66. On dual obligations, see World Medical Association, *Medical Ethics Manual*.

4. MÉDECINS SANS FRONTIÈRES MEDICO-LEGAL CERTIFICATES FOR SEXUAL VIOLENCE

1. WHO-UNHCR, *Clinical Management* (2004).

2. As of this writing, the linking of medical care and evidence collection continues to define best practice standards of care for survivors of sexual violence in humanitarian settings today; see WHO-UNFPA-UNHCR, *Clinical Management of Rape and Intimate Partner Violence Survivors*.

3. A dual obligation occurs when clinicians’ obligations to a third party, in this case the state, conflict with their obligations to a patient; it is a key issue in medical ethics; see, e.g., World Medical Association, *Medical Ethics Manual*.

4. Despite the proliferation of international guidance on responding to sexual violence in humanitarian contexts, few studies examine their efficacy and impact. For example, physician and former International President of MSF Doris Schopper found that no comprehensive inventory of organizations or programs providing specialized post-rape medical care exists. Implementation is difficult to document except through informal communication; see Schopper, “Responding.”

5. WHO-UNHCR, *Clinical Management* (2004), vii.

6. For current MSF protocols, see, e.g., Broban et al., "Assault," 5–6; and Buard et al., "Characteristics," 110.
7. Duroch and Schulte-Hillen, "Care for Victims."
8. MSF, *Shattered Lives*.
9. While some internal reports have not been made publicly available, a number of key findings have been shared with me in interviews.
10. Duroch and Schulte-Hillen, "Care for Victims."
11. For an ethnographic account of MSF, see Redfield, *Life in Crisis*.
12. In recent years, the organizational structure has grown considerably more complex, with the establishment of partner sections and branch offices, and a newer operational center located in West Africa (Abidjan, Côte d'Ivoire). See the MSF website at <https://www.msf.org/how-we-are-run>.
13. The MSF Legal Department advises on a wide range of legal matters, including humanitarian aid operations, medicines and medical licensing, contracts, taxes, labor and hiring, trademark protection for the MSF name and logo, and all issues regarding legal risk for the organization. The department develops MSF's legal strategy for negotiating with governments and other authorities in order to operate in conflict zones.
14. Bouchet-Saulnier, *Practical Guide*.
15. UNHCR, *Sexual Violence*.
16. MSF, *Shattered Lives*.
17. MSF staff have published accounts of the first program in two documents; see Duroch and Schulte-Hillen, "Care for Victims"; and Le Pape and Salignon, *Civilians Under Fire*.
18. Le Pape and Salignon, *Civilians Under Fire*.
19. A one-page summary of MSF's activities during the conflict was published in a *Lancet* article; see Salignon et al., "Health."
20. International Federation for Human Rights (FIDH) cited in Salignon and Legros, "Violence." There are no page numbers to reference. See also Salignon et al., "Health."
21. For a detailed timeline, see "Key Dates/Chronology 1998–1999" in Le Pape and Salignon, *Civilians Under Fire*. There are no page numbers to reference.
22. Salignon and Legros, "Violence."
23. Le Pape, "Emergency."
24. As noted in chapter 3, the results of an international case-control study demonstrated the efficacy of zidovudine (also known as AZT) in reducing risk of HIV transmission after occupational exposure to blood among health care workers; see CDC, "Case-Control." This prompted the US Centers for Disease Control and Prevention to revise its guidelines on prophylactic treatment after occupational exposure in 1996. The recommended antiretroviral drug regimens evolved over time.
25. Le Pape, "Emergency."
26. Salignon and Legros, "Violence."
27. Salignon et al., "Health."

28. Le Pape, “Emergency.”
29. See, e.g., Kapczynski, “Access”; see also the MSF website for a description of the campaign at <https://msfaccess.org/about-us>, last accessed July 3, 2024.
30. The creation of the program was chronicled in their chapter in the *Civilians Under Fire* report; see Liu and Salignon, “Health.”
31. Liu and Salignon, “Health.”
32. Liu and Salignon, “Health.”
33. South Sudan gained independence in 2011. Darfur is a region in the western part of Sudan that borders Chad, Libya, and Central African Republic; it is not part of South Sudan.
34. The conflict received worldwide attention through the Save Darfur Campaign, co-led by American celebrity actor George Clooney, and high-level diplomatic and foreign policy attention from the US State Department. For a critical account of the Save Darfur Campaign, see Fadlalla, *Branding Humanity*.
35. MSF, *Crushing Burden*.
36. Binet, *MSF and Darfur*, 239.
37. See, e.g., Meldrum, “Sudan Holds”; Moszynski, “Sudan Arrests.”
38. Sudan is not a signatory to the founding Rome Statute of the ICC. However, the UN Security Council granted the ICC jurisdiction by referring the situation in Darfur to the ICC on March 31, 2005, in UN Security Council Resolution 1593. For more information, see <https://www.icc-cpi.int/darfur>.
39. Though the ICC issued these arrest warrants, to date the case has not been tried. The charges include three counts of genocide by killing, by causing serious bodily or mental harm, and by deliberately inflicting on each target group conditions of life calculated to bring about the group’s physical destruction, all allegedly committed between 2003 and 2008 in Darfur, Sudan. For more details, see the full ICC case summary at <https://www.icc-cpi.int/darfur/albashir>.
40. The first report is an MSF-France internal report (later made publicly available) commissioned to review the section’s response to the emergency between October 2003 and October 2004; see Danet et al., *Critique of MSF-France*. Under the direction of President of MSF-France Jean-Hervé Bradol, MSF staff conducted interviews with field officers, operations staff, and key figures of other organizations to reconstruct a timeline of the conflict. The authors noted that this reconstruction was difficult because journalists and humanitarian aid organizations were barred from entering the region during the initial period of unrest. The second report, *MSF and Darfur 2003–2009*, discusses the work of all five sections (France, Holland, Belgium, Switzerland, and Spain); see Binet, *MSF and Darfur*. This MSF International report provides a detailed chronology of the organization’s operations based on a review of internal documents and interviews with staff involved. It is a 511-page, retrospective account published in 2024 to introduce new MSF staff to the organization’s principle of *témoignage* (or advocacy). The MSF Speaking Out Case Studies series, of which it is a part, is intended to illustrate the ethical dilemmas involved when MSF staff have had to decide if and when to speak out about violations of human rights. Originally conceived as an internal training tool, reports in this series

have been made public. For more information on the series, see <https://www.msf.org/speakingout>.

41. UN, *Report of the International Commission*, 22–23.
42. UN, *Report of the International Commission*, 23.
43. UN, *Report of the International Commission*, 24.
44. UN, *Report of the International Commission*, 62. This estimate was circulated in the *Darfur Humanitarian Profile No. 8* of November 2004, published by the Office of the Deputy Special Representative of the United Nations Secretary-General for Sudan and the United Nations Resident Humanitarian Co-Coordinator.
45. Danet et al., *Critique of MSF-France*, 18–19.
46. MSF-Belgium had already been operational in Chad near the border with Sudan, but did not become operational in Darfur until May 2004. MSF-Switzerland and MSF-Spain became operational in Darfur in August 2004.
47. MSF, *Crushing Burden*, 2.
48. MSF, *Crushing Burden*, 3.
49. MSF, *Crushing Burden*, 3.
50. MSF, *Crushing Burden*, 5–6.
51. Binet, *MSF and Darfur*, 237–38.
52. Binet, *MSF and Darfur*, 239.
53. Binet, *MSF and Darfur*.
54. Binet, *MSF and Darfur*, 228.
55. Binet, *MSF and Darfur*, 228–29.
56. Although the author was not named in the report, MSF-Holland internally considered Lamazière to be the author; see Binet, *MSF and Darfur*, 272.
57. Binet, *MSF and Darfur*, 236.
58. MSF, *Crushing Burden*, 1.
59. Binet, *MSF and Darfur*, 252. It is not clear from the Speaking Out Case Study report if MSF-Holland was seeking to advocate for prosecution at the ICC or simply to prompt international concern ahead of a widely watched UN Security Council meeting. In a separate report published by MSF, Françoise Bouchet-Saulnier and her coauthor stated, “The purpose of the report published by MSF-Holland on the rapes in Darfur, for example, was to alert the international community that these crimes were being committed”; see Bouchet-Saulnier and Dubuet, *Legal or Humanitarian*, 46.
60. Bouchet-Saulnier and Dubuet, *Legal or Humanitarian*, 46.
61. Rose interview.
62. Bouchet-Saulnier and Dubuet, *Legal or Humanitarian*, 46.
63. Several prominent human rights organizations took up the issue of Form 8, including Human Rights Watch and the American Bar Association. The Save Darfur Campaign also funded two advocacy reports on the issue published by the American advocacy organization Refugees International; see Fricke and Khair, *Laws Without Justice*; Martin, *Ending Sexual Violence*.
64. Binet, *MSF and Darfur*, 231.

65. Binet, *MSF and Darfur*, 272.
66. MSF, *Crushing Burden*, 6.
67. For a critical discussion of the ICC, see, e.g., Clarke, *Fictions of Justice*.
68. Bouchet-Saulnier and Dubuet, *Legal or Humanitarian*, 35–37.
69. Bouchet-Saulnier and Dubuet, *Legal or Humanitarian*, 40.
70. Binet, *MSF and Darfur*, 281.
71. UN, *Report of the International Commission*, 5.
72. Binet, *MSF and Darfur*, 371.
73. Binet, *MSF and Darfur*, 257.
74. Binet, *MSF and Darfur*, 238 emphasis added.
75. Danet et al., *Critique of MSF-France*, 86.
76. Salignon et al., “Health.”
77. Danet et al., *Critique of MSF-France*, 89.
78. Depoortere et al., “Violence.”
79. Depoortere et al., “Violence.”
80. Binet, *MSF and Darfur*, 239–40.
81. Danet et al., *Critique of MSF-France*, 87.
82. See, e.g., HRW, *War Within the War*; Amnesty International, *Democratic Republic*.
83. UNOHCHR, *Democratic Republic*, 8–9.
84. HRW, *Soldiers Who Rape*; UNOHCHR, *Progress and Obstacles*; Lake, *Strong NGOs*.
85. Mukwege, “No More!”; Mukwege and Berg, “Holistic.”
86. Lake, “Building.”
87. MSF, *Where Is Everyone?*
88. Claudine interview.
89. Claudine interview.
90. Alain interview.
91. The frequent absence of injury was not mentioned in Le Pape and Salignon’s 2003 *Civilians Under Fire* report for MSF-France.
92. Duroch et al., “Description”; Loko Roka et al., “One Size.”
93. One MSF study involved a review of de-identified patient medical records drawn from eleven sexual violence clinics in seven African countries between 2011 and 2017, but did not name the countries in order to maintain anonymity of patients and providers. The study did not provide information about presence or absence of injury; see Broban et al., “Assault.”
94. WHO-UNHCR, *Clinical Management* (2004); WHO-UNFPA-UNHCR, *Clinical Management of Rape and Intimate Partner Violence Survivors*.
95. I have permission from the MSF Legal Department to quote this sentence from the MSF medico-legal certificate for sexual violence. Given the sensitive nature of the document, I have not reprinted the certificate in its entirety. To see a sample medical certificate, please refer to box 1 in chapter 3, which contains the text of the WHO-UNHCR 2004 sample medical certificate.

CONCLUSION: THE PROBATIVE PARADOX
AND WHAT CAN BE DONE

1. On abortion, see, e.g., Cohen and Joffe, *After Dobbs*; Joffe, *Doctors of Conscience*; Cohen and Joffe, *Obstacle Course*; Luker, *Abortion and the Politics of Motherhood*; Suh, *Dying to Count*. On prescription pain medication, see Chiarello, *Policing Patients*.
2. On trans health care, see Hanssmann, *Care Without Pathology*; Kirkland, *Health Care*. On HIV treatment, see Epstein, *Impure Science*; Heimer, *Governing the Global Clinic*; Heimer and Tolman, "Between."
3. See Kapczynski, "Access" and *How to Vaccinate the World*.
4. Britton-Purdy et al., "Building."
5. See, e.g., Davis et al., *Abolition*.
6. See, e.g., Gottschalk, *Prison and the Gallows*; Gruber, *Feminist War*; Simon, *Governing Through Crime*; and Spade, *Normal Life*.
7. See, e.g., INCITE! Women of Color Against Violence, *Color of Violence*.
8. See, e.g., Falcón, "Rape"; Meyer, *Violent Differences*; Richie, *Arrested Justice*.
9. Global Survivors Fund, "Reparations."
10. ICRC, "Sophisticated."

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Arranged alphabetically by pseudonym and showing profession and approximate number of years in the field.

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Audrey, humanitarian aid policy expert, over 30 years, interviewed by the author in 2024.

Claudine, human rights expert, over 20 years, interviewed by the author in 2014.

Frances, forensic nurse, over 25 years, interviewed by the author in 2012.

Helen, humanitarian aid policy expert, over 30 years, interviewed by the author in 2019.

Jean, forensic nurse, over 25 years, interviewed by the author in 2011.

Kay, forensic nurse, over 30 years, interviewed by the author in 2011.

Leslie, activist, over 20 years, interviewed by the author in 2019.

Lois, forensic nurse, over 30 years, interviewed by the author in 2011.

Lynn, humanitarian aid practitioner, over 20 years, interviewed by the author in 2019.

Mary, forensic nurse, over 30 years, interviewed by the author in 2012.

Rose, gender-based violence expert, over 20 years, interviewed by the author in 2014.

Ruth, forensic nurse, over 20 years, interviewed by the author in 2012.

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