Sex Education in Deaf High Schools
A comparative study of sexuality epistemology in Kenya and Rhode Island

Ke’ala Morrell

Thesis submitted in partial fulfillment for Honors in Science and Society, BA
April 2015

Advisor: Sherine Hamdy, Ph.D.
Second Reader: Tim Riker
Third Reader: Sarah Skeels
# Contents

_Acknowledgements_ ........................................................................................................ 4

_Abstract_ .......................................................................................................................... 5

_Introduction_ ..................................................................................................................... 6

_Chapter 1_  
Disability Frameworks ................................................................................................. 14

_Chapter 2_  
Sex Education Frameworks .......................................................................................... 25

_Chapter 3_  
Methodology of comparative field research in Nairobi and Providence ............. 37

_Chapter 4_  
Conclusions of comparative field research in Nairobi and Providence ............. 49

_Conclusion_ ....................................................................................................................... 62

_Bibliography_ ................................................................................................................... 65

_Appendices_ ..................................................................................................................... 74
Acknowledgements

I would like to thank all of the people who have helped me on my journey through this process. To my advisors and readers, Sherine Hamdy, Sarah Skeels, and Tim Riker for their guidance, encouragement and continual support through the researching and writing of this thesis. This process has been immeasurably valuable for me as a learner, advocate, and community member. Your comments, edits, and perspectives are incredibly important to me. I hope I’ve done you all proud. Additionally, I would like to thank all my professors, teachers, and mentors at Brown, the Rhode Island School for the Deaf, and in Nairobi, Kenya. You have shaped mind and the frame through which I see the world. You have taught me how to think, question, and interpret everything I learn. Finally, I need to thank my friends and family for their endless love and encouragement. Without their kind words and consistent positivity, I would not have been able to accomplish this feat. I owe it all to you, “for it is not by the acuteness of our sight or the stature of our body that we might see more or further, but because we are standing on the shoulders of giants” – Newton.
Abstract

People with hearing disabilities are less likely to have access to sex education, STI prevention, and care services. They are more at risk for infection due to the stress of marginalization, extreme poverty, sexual exploitation and illiteracy. The field research portion of this thesis looks at how Deaf populations – specifically Deaf youth – receive and internalize sex and sexual health information. I will contextualize that research by analyzing the historical discourses that acted to construct the identity of disability and the epistemology of sex education in the United States and Kenya. I will unpack the multi-layered structures of discourses to reveal the underlying power structures at play. Particularly, I will examine how disability and sex education interact with the scientific community – specifically how the science of sexuality is made and presented in a way that preserves existing power structures. Then I will look at how those interactions led to populations with disabilities being left out of sexuality discourses. With the help of sex educators in the Deaf community in the two study locations, Nairobi and Providence, I will develop a peer-led, video-based curriculum.
Introduction

My story begins as a brightly colored bus rattles down a partially paved road in Nairobi, Kenya. I sit in the back, conspicuously trying to veil the fact that I am staring intently at the conversation three seats in front of mine. Three Kenyans move their hands in the familiar flick and curve of signed language. They feel my eyes and turn, signing, “Hello.” I blush, “Hi.”
“Sign?”
“It’s okay.” One of the girls motions for me to come over, “we know ASL too.”

According to statistics from the World Heath Organization, roughly 360 million people worldwide are deaf or hard of hearing. People who are deaf or hard of hearing are less likely to have access to sex education, STI prevention, and care services. They are more at risk for infection due to the stress of marginalization, extreme poverty, sexual exploitation and illiteracy. People with disabilities have less access to socio-cultural support and more risk for negative sexual health outcomes. Under-represented populations face stigma, discrimination and oppression especially in the socio-cultural spheres of sex and sexuality. Taboo or stigmatized topics, such as sex, become twice as unmentionable when disability is thrown into the mix. People who are identified as deviating from the norm in multiple ways i.e. sexual and disabled are rendered ‘multiply other’ and are often subjected to twice the ridicule. In 2003, the World Bank published a

---

2 UNAIDS Gap Report 2014: People with disabilities chapter
3 For more on the sexual repression among PWD see Vernon, Ayesha. "Multiple Oppressions and the Disabled People's Movement."
series of reports on the state of global disability. This research confirmed the lack of information about this population and insisted that inclusive approaches be taken in future programming and services.4

I took this as an opportunity to do base-line research on how the Deaf population – specifically Deaf youth – were affected by and how they understood sex and sexual health. I conducted my research in two locations, Nairobi, Kenya and Providence, Rhode Island. My field research in Kenya was conducted through qualitative interview questionnaires, administered at a variety of research sites, looking at understanding and accessibility of sex education. Upon returning to the US, I repeated the research at a Deaf high school in Rhode Island with a smaller sample size. The results from the surveys at these two study sites led to my conclusions about the next steps in crafting a sex education curriculum for the Deaf youth populations in Nairobi, Kenya and Providence, Rhode Island.

I chose to do a comparative study because it provides a valuable analytical framework for examining social and cultural differences and specificity about a bio-specific population within larger social contexts. The sub-discipline of bio-cultural anthropology, explores the relationship between biological markers – such as impairments - and the subculture created when people are brought together by that biology5. Bio-cultural anthropology provides a useful framework for exploring the Deaf community because the culture shapes the way participants think about the world, altering their biology by influencing their acceptance or rejection of assistive technology,

oral development, and other biological features. At the same time, the external cultures of Kenya, or the US, simultaneously influence the form and function of the Deaf culture in their respective countries. By doing a cross-cultural study, I will attempt to parse apart the context drivers and cultural drivers that exist in Deaf culture, with in national cultures. In doing so I hope to gain a better understanding of different societies, their structures and institutions and how they act to empower or disable the bio-culture of the Deaf community.

In this paper I will use the term Deaf with a capital or “big D deaf” to refer to people who are part of Deaf culture. The word deaf, lowercase, refers only to the audiological condition or people with hearing impairment who do not subscribe to the values, culture and language of the Deaf community. Additionally, I am choosing to label deafness as a disability, which is controversial. I am making this decision because policy makers and educators have used that categorization in the development of policy and curricula that is implemented in Deaf schools. Since I am describing and abstracting from that work, I am keeping the label for clarity. I would like to acknowledge that within the Deaf community, deafness is not viewed as a disability – so the rhetoric in this paper may be irrelevant to that community at some points. It is important that I disclose my own bias as a hearing individual, brought up in American hearing culture. I hope the framing of disability that I establish in the first chapter helps to communicate the multi-variable

---

6 For more on Bio-cultural Anthro in the Deaf community see Bauman, H-Dirksen, and Joseph Murray. "Reframing: From Hearing Loss to Deaf Gain." 2009
7 I would like to acknowledge that as the Disability Rights movement matures and adapts, there has been an effort to reclaim the disability identity within the Deaf community. The movement stems from a desire to foster community with other people with disabilities and become a more decisive political unit (McRuer).
facets of the Deaf experience, rather than reinforce the presumption of deafness as a disability, if not, take and leave what you will.

Through a Science and Society/ Science and Technology Studies (SCSO/STS) lens I analyzed the historical discourses that acted to construct the identity of disability and the epistemology of sex education in the United States and Kenya. SCSO/STS methodologies unpack the multi-layered structures of discourses to reveal the underlying power structures at play. I examined how disability and sex education interact with the scientific community – specifically how the science of sexuality is made and presented in a way that preserves existing power structures. Then I looked at how those interactions led to populations with disabilities being left out of sexuality discourses. Ultimately, my research, theoretical and in the field, pointed to one major conclusion: We need to re-think how we teach sex education in Deaf high schools. Sex education and sexual health sciences do not exist in a vacuum. Instead, they are fluid, social, political, personal, and biological spaces that are inextricably linked to society, stigma and identity.

In order to address the complex space that is sexuality epistemology, especially with in the community of students with disabilities, we need to find a way to incorporate the lived experiences of the students. For the youth I worked with in Nairobi and Providence that meant looking within the population for strengths. The people I interviewed had never seen medical professionals, frequently never seen health educators, who looked like them or spoke their language. Sexual health knowledge was not coming from within the population, so it was irrelevant to the students in those sex education

---

classes. Sexuality had been constructed as a space exclusive of people with disabilities, so the information was not applicable to the lives of public high school students with disabilities.

Talking about the actors and cultures that have defined what sex education is, can reduce the stigma and exclusion around sexuality that has been constructed by society and forced upon students with disabilities. The science of sexuality was done without people with disabilities at the table. By knowing what narratives and identities constructed sexuality, it can become more clear to students why their identity might not be addressed. The history of science perspective can help to situate the discourse and remove the expectation of universal truth.

For example, the first sex education curriculum was a set of pamphlets commonly known as “the sex education series.” They were first written when schools were not integrated; maybe that is why people of color are left out of that curriculum. If we deconstruct this history in a sex education classroom, sex and sexuality studies can become accessible to students who’s identities are left out of the normal science discourse. It can also promote fluidity and progression in adapting sex education curricula. For example, now

---

9 From personal interview, conducted with a KSL to English interpreter, with Deaf student at Karen Technical Institute for the Deaf
10 Extrapolated from a study on history of science teaching and queer identity Gill, Puneet S. Life science teachers’ decision-making. 2013
that schools are integrated, race and ethnicity need to be addressed in future sex education curricula. Using the history of science perspective when teaching students with disabilities could be essential for opening the dialogue to include the vast array of disability experiences. We may find that through these peer-to-peer discourses that we are able to further the conversation between disability and sexuality.

**Thesis structure**

I have organized my thesis in the following way: The first chapter will introduce the historical models for disability in America and Kenya from the 19th and 20th centuries. I will layout some of the existing frameworks used for defining disability in these contexts. Specifically, I will expand on the social, environmental history that demarcated disability in the United States in the 1800’s and the resistance frameworks that followed. In addition, I will look at the indigenous framing of disability in Kenya and the way colonization altered and re-wrote those frameworks. Then, drawing on the methodology of SCSO and STS, I will propose an alternative framework focused on the construction of disability through associations and interactions between biology, medicine, society, and the built environment of the major cities (Nairobi and Providence). This chapter will highlight how the language from STS theory can expand the discourse on disability to be more inclusive of the multiplicity of the disabled experience.

The second chapter will focus on the themes emerging from the discourse on sex education in public schools the United States in the past century – mainly the 1960’s to now. I will also reflect on This includes the historical underpinnings of religious morality in sex education classrooms – with a focus on Abstinence-only education and how that

12 Ibid.
curriculum emphasizes particular moral positions while undermining others. Further, how
that morality-based system influences stress on individual moral responsibility, rather
than addressing social structural problems that place some populations at disproportionate
risk for health problems or limits on their sexual expression or autonomy. While also
acting to withhold information about sexual/bodily diversity that could enhance people’s
knowledge of their bodies and ability to maintain good health. This section also
highlights the reductionism of a solely scientific curriculum, which might suggest a non-
social view of human bodies and sexual desires. Finally, I address how sex education acts
to further disable students through normative discourse. In constructing a widely
applicable sex education curriculum, educators act to generalize from the experiences of
able-bodied, white, male, heterosexual bodies, which, re-instantiates these bodies as the
norm from which others deviate.

In chapter three, I explain the methodology and study sites of my field research. I
employed qualitative interview methods to seek to understand how Deaf youth received
and interpreted sex and sexuality education materials. I will start first with brief
descriptions of the study populations and country contexts in order to contextualize the
information I gathered. In chapter four, I will try to express my results as simultaneously
factual and constructed and relative to my own biases and interpretation. I will discuss
the conclusions of my field research in Kenya and Rhode Island and attempt to glean
useful comparison of social and cultural differences and specificity about the bio-cultural
Deaf populations in both study sites. Chapter five with describe the inclusive curriculum I
am proposing. A copy of the curriculum is attached as an appendix to this thesis. An
additional video curriculum will be hosted online and can be requested in DVD format.
Chapter One: Disability Frameworks

Instead of solely examining the physical aspect of disability or removing entirely the focus from the body, we ought to propose a conceptual vocabulary that monitors the multiplicity of the experience of being disabled by simultaneously addressing interactions between the impaired body, disabling social and institutional barriers, and inaccessible urban environments. – Galis (2014)

A primary concern for scholars researching disability in the 19th and 20th centuries in America, has been developing a comprehensive definition or model for understanding and adequately measuring the effects and experiences of living with an impairment. In this chapter, I will layout some of the existing frameworks used for defining disability in the context of 19th and 20th century America. Specifically, I will expand on the social, environmental history that demarcated disability in the United States in the 1800’s and the resistance frameworks that followed. I will also highlight how the language from STS theory can expand the discourse on disability to be more inclusive of the multiplicity of the disabled experience – addressing the interactions between biology, medicine, society, and the built environment of major cities (Providence and Nairobi).

The definition and modeling of disability has only recently entered the field of Science and Society (STS). Having, historically, been housed in the fields of biology, medicine, and social sciences. Upon entrance to the field of Science and Society, scholars have constructed theories that challenge the existing models of disability. STS suggests a

---

13 For more on the definition of disability see the works of Tom Shakespeare, Nicholas Watson, Christina Pearson and other Disability Studies scholars.
framework that highlights the interdisciplinary definitions posed by the fields of medicine, disability studies, and society-at-large. Conceptual models and semiotics from Science and Society bring a much-needed reformed language to the discussion of ability. In the conclusion of this chapter, I will focus on how the frameworks in the United States are not useful in the context of Nairobi, Kenya. Drawing conclusions from the analysis of American frameworks might provide valuable insights into the Kenyan Deaf community, which is less researched.

*The Medical Model*

In the nineteenth century, expansion of urban centers and industrialization led to mass production of a built environment in America. Architects, construction workers, and landowners began to define spaces for people as they built a new urban landscape. This shift away from self-constructed space meant that the ability of a body was generalized for mass production. Architecture relied on the Vitruvian model of the body, an idyllic version of capability. In order to access this newly built landscape, a certain type of body and ability was required. Spaces were, en masse, not made for an atypical body, for atypical mobility levels or sensory perception. Generalizing a ‘normal’ body, led to an increased focus on the problematization and categorization of the ‘abnormal’ body. Because of the sudden

---

15 See works of Moser 2000/2005 and Galis 2006/2011
16 For more on urbanization and the process of disability see Galis, Vasilis. "Disability & Society." Disability & Society 2011
changes in the built environment, people were suddenly unable to participate in parts of society based on their bodies’ ability.\textsuperscript{17}

The movement of impairment into a built system in the United States was further established by the rise of medical practices in the early twentieth century. The emerging definition of impairment as a physiological status put the problematic “issue” – impairment – in the individual, atypical body. The movement of ability from the private into the public sphere transferred power to define what disability was to medical experts and away from lived experience of people with disabilities.\textsuperscript{18} The medicalization of disability thrived on pseudo-scientific proof to define a hierarchy of ability for American society. The scientific community perpetuated claims that acted to subordinate people with disabilities. Some realms of science went so far as to cast doubt on whether the lives of people with disabilities were even lives worth living. The eugenics movement, in American universities and public laboratories in the early 1900’s, thrived off of this kind of pseudo-science.\textsuperscript{19}

Generally, the medical model of disability, defined by American medical professionals, focused on the physical aspects of impairment. For example, a person with deafness is disabled because their ears cannot hear or a person who uses a wheelchair is disabled because their legs cannot walk. These definitions, institutionalized by the

---

\textsuperscript{17} Further discussion of architecture and ‘abnormal’ anatomy can be found in Imrie, R. Architect’s conceptions of the human body. 2003
\textsuperscript{18} For more on the medicalization of the physically disabled body see Barnes, C. The social model of disability: A sociological phenomenon ignored by sociologists. 1998
\textsuperscript{19} Eugenics became an academic discipline at many colleges and universities in America in the early 1900’s. Medical inferiority of people with disabilities was used as justification for compulsory sterilization of over 350,000 people with disabilities in the United States. The history of disability and the eugenics movement in American Universities is elucidated in Shakespeare, T. 2006. The social model of disability.
American medical system, were based off of an arbitrary evaluation that defined the function of a body part and attributed that directly to its worth\textsuperscript{20}. This reductionist view of disability focuses solely on a physical attribute of impairment rather than the person as a whole. This type of model is rooted in the Western practice of clinical diagnosis, which, by definition is a reductionist and simplistic framework. Unfortunately, this model is grounded in a historically powerful system, the American medical community, and thrives off maintaining the social status quo. So, while non-disabled people are in the societal majority in the scientific- specifically medical- community, little pressure to change the current modeling of disability will be felt\textsuperscript{21}.

Western medicine exerts its power through the ability to differentiate and define what is normal and abnormal. These classifications are internalized and reproduced in the practice of diagnosis, making of social policy, and the education system. Classification involves the division of the world into discrete categories. The Western medical system of classification is used as a way of ordering human interaction and goes mostly unquestioned and unexamined\textsuperscript{22}. Categorizing disability as a medical (scientific) classification suggests that it is based on internal truth (science) so it is given power over other framings. Further, diagnosis must be continually maintained and defined by the system, institution, or individual that produced the classification. That work maintains

\textsuperscript{20} For more on the medicalization of the physically disabled body see Barnes, C. The social model of disability: A sociological phenomenon ignored by sociologists. 1998

\textsuperscript{21} Medicalization of the disabled body acts to displace power from local knowledge to expertise. For more on the institutionalization of power over the disabled body see Brisenden, Simon. "Independent Living and the Medical Model of Disability." 1986

\textsuperscript{22} Classification systems are essential for the ordering and conceptualizing of social life, the work of “maintaining and analyzing classification systems… is one of the central kinds of work science and medicine do” Bowker, Geoffrey C., and Susan Leigh Star. "Part Four: The Theory and Practice of Classifications." Sorting Things Out: Classification and Its Consequences. Cambridge, MA: MIT, 2000
political, social and ethical power in the Western medical system\textsuperscript{23}. In terms of disability, the Western medical model focuses discourses of health on reductionist classifications of impairment. As I will mention later, in America, as elsewhere, medical classification of disability can segregate and limit peoples’ agency over their own bodies, sexuality and health.

\textit{The Social Model}

In the 1960-1970's, in reaction to the then, exclusive medical model, PWD activists, scholars and politicians in the U.S. developed a new way of defining disability; they called it the social model\textsuperscript{24}. The social model pushed back on the normativity and able-ism of the medical model. In America, PWD and allies challenged the structures of oppression that sought to exclude PWD from full community participation. The new model was post-humanist and focused on disability as a social construction and mode of oppression\textsuperscript{25}. This was a major shift in the conception of disability in American culture. While medical frameworks of disability explained impairment through biological deficit or medical abnormality, the social model of disability focused on social climates, cultural values and environmental factors. The social model suggested that if disability is a process rather than a state that is physically embodied, then it is also constructed rather than diagnosed.

The medicalization of disability relied on differentiating local and ‘expert’ knowledge. Medical experts possess the power of definition because they have the weight


\textsuperscript{24} Many Disability studies theorists and scholars have written on the transition and (re)definition of disability from the social model framework. Some of the works I draw on in this paper are Oliver 1990, Shakespeare 2006, Winance 2006; and Diedrich 2005

\textsuperscript{25} For more on the medicalization of the physically disabled body see Barnes, C. The social model of disability: A sociological phenomenon ignored by sociologists. 1998
of the scientific community (science and therefore truth) on their side. The power
ascribed to expert opinion simultaneously acts to subjugate other forms of knowledge –
such as local or lived experience of PWD. Non-experts are excluded from contributing
valuable scientific knowledge, unless local knowledge can be validated by scientific
language\textsuperscript{26}. Instead, the social framework of disability took on the rhetoric tools of
minority groups and civil rights battles\textsuperscript{27}. Led by intellectual leaders of the Union of
Physically Impaired Against Segregation (UPAIS), such as Paul Hunt, this small band of
rebellious activists sought to replace segregated social spaces with opportunities for
equality for people with disabilities. While UPAIS made great strides in vocalizing the
distinction between impairment and disability, the term “the social model” was not
coined until 1983\textsuperscript{28}.

Foucault’s theory of “the insurrection of subjugated knowledge’s” provides a
useful structure for looking at the production of the social model of disability in the US in
the 1960’s. Foucault recognizes the value of the decentralized production of knowledge
based on the diverse experience of actors. In other words, the experience of knowledge,
knowledge in the wild or in action, is a definitive player in constructing meaning from
knowledge\textsuperscript{29}. In terms of disability, this would mean that in order to define or enact
disability, one needs to synthesize the combined thoughts, perceptions and actions of
individuals living with disability, interacting with the built environment and engaging

\textsuperscript{26} Foucault has written in depth about the hegemony of expert knowledge and the power systems
housed in the institution of the medical community. I use his frameworks to extrapolate about the
power relationships between PWD and the medical community. I draw on Foucault, M. (1980).
\textsuperscript{27} Hahn, Harlan. "The Politics of Physical Differences: Disability and Discrimination." 1988
\textsuperscript{28} Galis, Vasilis. "Disability & Society." Disability & Society 26.7 2011
\textsuperscript{29} Foucault, M. 2003. Society must be defended: Lectures at the Collège de France 1975–
1976, ed. M. Bertani and A. Fontana
with materials and tools. This lived experience would act to define the parameters of the identity “person with a disability” – this was a major pillar of the social model definition.

The social model stands on three major dichotomies.\(^{30}\)

1. That impairment is different from disability. Impairment is individual and inherent which is in contrast to disability, which is structural and culturally defined.

2. That the medical model cannot co-exist with a social model. The difference is laid out by Mike Oliver when he states:
   a. “Models are ways of translating ideas into practice and the idea underpinning the [medical] model was that of personal tragedy, while the idea underpinning the social model was that of externally imposed restriction.\(^{31}\)”

3. That people with disabilities are not different from people without disabilities. People with disabilities are a minority group that routinely suffers oppression at the hands of people without disabilities. Civil rights are the only way to move forward.

The social model, as it was intended in originally, was primarily a social and political tool. It was designed to threaten the status quo of Western culture and assert the moral responsibility of society to enable PWD to engage equitably with the world. The social model of disability looks at the tools and physical spaces that enact disability and discrimination on an individual, rather than the impairments of that individual. For

---

\(^{30}\) Summary of the points made in defense of the social model by Galis, Vasilis. "Disability & Society." Disability & Society 26.7 2011

\(^{31}\) Mike Oliver is a Disabilities Studies theorist form Britian, he is a advocate of the social model theory of disability and a staunch believer that the two models cannot exist without completely undermining each other. Oliver, M. The politics of disablement. 1990
example, the majority of books we read are disabling to people with blindness because they are not written in Braille. If all books were printed in braille, people with blindness would not be disabled. The social model is still widely accepted in the field of disability studies.

Science and technology studies (STS) theory adds to the conceptualization of the social model disability I just described. STS provides a framework and language to look at how disability is enacted and experienced on a daily basis, in the throws of modern American culture. Latour’s Actor Network Theory provides a useful language for constructing the interconnected processes that include human and non-human actors that produce effects. Actor Network Theory treats objects and the material world as part of a social network and effect. In terms of disability, Actor Network Theory would suggest that disability is constructed simultaneously by the human and non-human actors of the body, assistive technology, and symbols. This is a useful framing tool because it deconstructs the modeling of the individual body with impairment as separate from the social and material actors that bodies interact with. Because Actor Network Theory weighs the material and social world equally, it would suggest that socio-material spaces, such as built environments, are equally as disabling as quadriplegia, for example.

In 1960, the term ‘cyborg’ entered the American lexicon. This term referred to organisms that combined with a technology to become one “cybernetic organism, a hybrid of machine and organism, a creature of social reality as well as a creature of

---

32 Developed by Michel Callon and Bruno Latour, ANT is described as a “material semiotic” method. It functions on the basic assumption that everything is simultaneously interacting in a material and conceptual way. Originally intended to map the process of new-technology innovation, I am suggesting ANT can be useful for mapping the interactions of material disabled bodies and conceptual disabling oppression. Latour, B. 1987, 1993, 1997
fiction\textsuperscript{33}. STS scholar Donna Haraway’s \textit{A Cyborg Manifesto} (1991) offers a new and useful frame for conceptualizing the fluidity of the boundary between disabled and non-disabled people. According to Haraway, cyborg identity is established by transgressing boundaries between machine and human, in particular the discourses of otherness, which result in binaries maintaining the illusion of the invulnerable autonomous subject. So for example, the ways in which impaired people incorporate their wheelchairs, prosthetics and canes into their corporeal and psychic sense of self produces new ways of being which are both (non)disabled and (ab)normal.

\textit{Cross cultural relevance}

The English word ‘disability’ is imbued with culturally contextual notions of social inferiority and stigma arising from American history described earlier in this chapter. Anthropologists (Talle, Monk, Ogechi) attest that Kenyan cultures (Maasai, Bantu, Luo) did not traditionally subscribe to this subordination of disability. Rather, their cultures imply that the social stigma professed by westernized perspectives is not always attached to a person on the basis of their disability, rather, on their potential to function and comply with the demands of a highly social, often migratory society. Because of this fundamental difference in the local definition of disability, the assumption that the word disability is always linked with a disabled body, might not apply in the Kenyan context\textsuperscript{34}.


\textsuperscript{34} A number of anthropologists have studied the categorizing of disability in the Kenyan context. Because of the diversity of tribes, and the lack of comparative analyses, it is hard to construct a comprehensive “Kenyan” framing of disability. My framing derives from the work of Albrecht 1999, Gbodossou 1999, Kisanji 1999, Ingstad & Whyte 1995
For example the Maasai tribe in Kenya does not regard people with a disabiling condition as a single, unified category toward which they can relate by a standard set of behaviors or attributes. To the Maasai, the concept of disability has a very strong dimension of practical incompetence. In a nomadic society where mobility and flexibility in residence are called upon daily, the ability to walk and cover long distances quickly is a prerequisite for survival. Further, the Nandi tribes in Kenya believe that congenital disabilities are caused by the wrath of the ancestors or the creator and can only be corrected after an elaborate appeasement ritual that is performed immediately after the birth of the child. No fault is attributed to the individual with the impairment – because the fault is seen as lying with the society.

In Bantu – coastal cultures – in Kenya, a name denoting disability may or may not systematically convey information about the referents’ disability. For instance, it is not uncommon for a child to be called a disability-related name i.e. Kerema (physically impaired), Gechiino (one who squints) or Nyang’ong’o (one with a cleft lip) whether they have the disability or not.

<table>
<thead>
<tr>
<th>Category</th>
<th>English Class</th>
<th>Maa (Kikuyu)</th>
<th>Nandi*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Physical Impairments</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Impaired hand</td>
<td>Ngaatobolo</td>
<td>Kimung’emung’</td>
<td></td>
</tr>
<tr>
<td>Impaired finger</td>
<td>Ngalari</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Physically impaired</td>
<td>Kooj/ioo/mooj/ Koojia</td>
<td>Kimung’emung’</td>
<td></td>
</tr>
<tr>
<td>Sensory Impairments</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Dumb</td>
<td>Simana</td>
<td>Kipisi/jepisi/marrinda</td>
<td></td>
</tr>
<tr>
<td>One who stammers</td>
<td>Mochirat/gachiru</td>
<td>Kibag’t/jebag’</td>
<td></td>
</tr>
<tr>
<td>Visually impaired</td>
<td>Mudo</td>
<td>Kipotimka/ekotimka</td>
<td></td>
</tr>
<tr>
<td>Mono eyed</td>
<td>Goting’o/ Kerena</td>
<td>Kifais/etaim/ Kime- g’emung’</td>
<td></td>
</tr>
<tr>
<td>One who squints</td>
<td>Gechiino</td>
<td></td>
<td></td>
</tr>
<tr>
<td>One with small eye</td>
<td>Obalo</td>
<td></td>
<td></td>
</tr>
<tr>
<td>One with big eyes</td>
<td>Ngaatito</td>
<td>Kichog’o/ebichog’o</td>
<td></td>
</tr>
<tr>
<td>Cross eye</td>
<td></td>
<td>Kimung’emung’</td>
<td></td>
</tr>
<tr>
<td>Faint vision</td>
<td></td>
<td>Tumamion</td>
<td></td>
</tr>
<tr>
<td>Mental Impairments</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Crazy/ Mad person</td>
<td>Barino</td>
<td>Kibwet/kibwet</td>
<td></td>
</tr>
<tr>
<td>Learning disability</td>
<td>Nyaribento</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Big head</td>
<td>Osema</td>
<td>Khoomier/ebhoomer</td>
<td></td>
</tr>
</tbody>
</table>

Source: Naming practices (Talle 1995)

35 For more information on Maasai definitions of disability see Talle, Aud. Disability and Culture. 1995
36 In a literature review and comparison of anthropological texts about the framing of disability in local Kenyan tribes Albrecht and Devlieger (1999) compiled data on three major tribes the Maasai, Bantu, and Abagusii living in the North, South and Coastal regions in Kenya.
other researchers concur, this naming by bodily parts is not necessarily derogatory but rather it reveals cultural acceptance of difference\textsuperscript{37}. These anthropological perspectives help to realize that if we are addressing this community with the same assumptions – we might be enforcing a definition of disability that did not previously exist.

While this local knowledge still exists and is significant for contextualizing the prominent working frameworks for disability in Kenya, it should be recognized that “disability” in Nairobi today, has been created in the image of Western influence. The West has constructed the infrastructure of research, school, and policy systems in Kenya. With the influence of Christianity, Western education, and medicine, the traditional frameworks of disability are being marginalized and deemed un-technical. The Western worldview promotes public health intervention schemes that act to medicalize and categorize the Kenyan disabled\textsuperscript{38}.

\textsuperscript{37} Analysis of common names and proverbs in two Kenyan tribes provides insight into local knowledge about disability. Ogechi, Nathan O., and Sarah J. Ruto. "Portrayal of Disability through Personal Names and Proverbs in Kenya; Evidence from Ekegusii and Nandi."

\textsuperscript{38} In the Epilogue of their book Disability and Culture, Benedict Ingstad and Susan Reynolds Whyte (1995) talk about the influence of Western culture on the indigenous concepts of disability and sickness in a number of case studies in Eastern Africa.
Chapter Two: 
Sex Education Frameworks

Disability and sexuality are about collectively transforming (in ways that cannot necessarily be predicted in advance) the substantive uses to which the disabled existence has been put by a system of compulsory able-bodiedness, about insisting that such a system is never as good as it gets, and about imagining bodies and desires otherwise.”
- McRuer (2006)

In the past century, in the United States, information on sexual health and sexuality of young people has been constructed in the hands of politicians, and policymakers who determine sex education curriculums and how sex is talked about in science and the public school classroom\(^39\). Science and health education classrooms are dynamic and influential spaces for crafting the discourses youth have about sex and sexuality. This chapter will focus on the themes emerging from the discourse on sex education in public schools the United States in the past century – mainly the 1960’s to now. The sex education curriculum posited by the common core is required in public schools across America – including Deaf schools that receive public funding, and Deaf classrooms in public schools. Since the common core is used as a tool for defining and describing sex and sexuality in the formal sphere, it is important to delve into the history and context of the development of this standard curriculum.

In this chapter, I will focus on four problematic points in the analysis of the common core – specifically the Rhode Island department of education’s comprehensive

\(^{39}\) For examples and data about how policy shapes what is taught in sex education/ life sciences classrooms see the dissertation Gill, Puneet S. Life Science Teachers’ Decision Making. Diss. The U of Alabama, 2013
health instructional outcomes from 2012. First, I will address the historical underpinnings of religious morality in sex education classrooms in America – with a focus on Abstinence-only education and how that curriculum emphasizes particular moral positions while undermining others. Secondly, I will look at how that morality-based system is overly focused on individual responsibility. This reductionist approach minimizes, or ignores the influence of social structural inequities that place some populations at disproportionate risk for sexual health problems or limits on their sexual expression or autonomy. Thirdly, this section will highlight the problematic reductionism of a solely scientific curriculum, which might suggest a non-social view of human bodies and sexual desires. Finally, I will address how sex education acts to further disable students through normative discourse. I will argue that the RI common core withholds information about sexual/bodily diversity that could enhance people’s knowledge of their bodies and ability to maintain good health. In constructing a widely applicable sex education curriculum, educators act to generalize from the experiences of able-bodied, white, male, heterosexual bodies, which, re-instantiates these bodies as the norm from which others deviate.

In the conclusion of each section, I will address how the frameworks and discourses about sex and sexuality education in the United States are/are not useful in the context of Nairobi, Kenya. I will look at what assumptions can/cannot be used in the analysis of sex education in these contexts. In particular, I will focus on the influence of American ethnocentric NGO’s and Christianity on the construction of the common core equivalents used in Nairobi Deaf schools. Specifically, how Western assumptions were mapped onto the Kenyan youth experience in the development of the standard sex
Religious morality in sex education

Over the past few decades in the United States, billions of dollars have been spent campaigning the implementation of abstinence-based sex education in the common core – the curriculum used by public schools in America. In the public sector, abstinence-only education began in America in 1981 with the passage of what is commonly known as “The Chastity Act,” formally the Adolescent Family Life Act (AFLA). The Chastity act was written in response to the “social and economic problems associated with adolescent sexuality”. AFLA imposes speech restrictions on public school teachers in their instruction and counseling of adolescents. This $30 million-a-year federal grant program continues to provide governmental funding to abstinence-only programs in public schools in the United States. In 1996, a piece of legislation designed to overhaul the welfare system was in the House and Senate. In the last hours of negotiation, Title V – allotting fifty million dollars a year worth of funding to abstinence only education – was added to the bill by a Christian lobby group, just as it passed into law. This last minute addition to the Personal Responsibility and Work Opportunity Reconciliation Act is still the biggest public funder of “abstinence until marriage only” education.

According to a study by the Sexuality Information and Education Council of the United States (SIECUS) abstinence education is intricately linked with religious

---

40 The Chastity Act has been reviewed and rewritten a number of times, for a full analysis of the act at the time of publication see Lewis, Cheri. "Kendrick V. Bowen and the Chastity Act." (n.d.): n. pag. Colonial Law, 1988

41 For further information about how the AFLA and Title V are continuing to affect the public school systems see Perrin, KK, and SB DeJoy. "Abstinence-only Education: How We Got Here and Where We're Going." 2003.
organizations. For example, LifeWay Christian Resources is “the world’s largest provider of abstinence education materials,” and is operated by the Southern Baptist Convention. Abstinence-only education is rooted in a moral framework derivative of Abrahamic religious morality\textsuperscript{42}. In the case of Kendrick v. Bowen – an appellate supreme court ruled that “AFLA programs target pregnant adolescent women, and there is an inherent danger that religiously-affiliated groups will take this opportunity to inculcate their religion to young individuals at a vulnerable time in their lives.” Essentially, abstinence-only programs seek to serve the purpose of teaching a moral framework, an objective that carries with it the risk that religion will be used to instill such morals in these young people. “The Act expressly calls upon religious organizations to convey certain religious values to minors”\textsuperscript{43}. The pernicious combination of religious organizations teaching morality emphasizes particular moral positions while undermining others.

The fingers of Western religion, Christianity especially, have spread through much of the African continent following the paths of colonization and missionary work. In Kenya circa 1985, the Boy Scout’s of America, with the help of Pathfinder Funds, published a book on sexual health education for young people in a series of consecutive mission trips. This book discussed topical issues in sexual health education such as human anatomy, sex, pregnancy, and abstinence. Subsequently, the Kenyan Government used this book as the basis for the sex education syllabus taught in public primary schools\textsuperscript{44}. The BSA organization is openly Christian and the text produced posits a

\textsuperscript{42} SEICUS. "Religious Concept Gains Momentum in Secular Programs." Sexuality Information and Education Council of the United States. Aug. 2005
\textsuperscript{43} Lewis, Cheri. "Kendrick V. Bowen and the Chastity Act” 1988.
\textsuperscript{44} For more information of the history of sex education in Kenya and the influence of Western NGO’s, religious groups, and policy makers see Wanyonyi, Hellen S. "Youth Sexual Behaviour and Sex Education."\textit{International Journal of Education and Research} 2.3. 2014
viewpoint that sex before marriage is immoral\textsuperscript{45}. In 2000, an adjusted, Government published, HIV/AIDS education program was developed. The contributors to this new curriculum for primary and secondary public schools were, the World Health Organization (WHO), the National Christian Council of Kenya (NCCK), the Kenya Family Planning Association (FPAK), the Young Men’s Christian Association (YMCA), the Kenya Catholic Secretariat (KCS), and the National Women’s Federation (NWF)\textsuperscript{46}.

*Focus on individual responsibility*

The Rhode Island common core is overly focused on individual responsibility. The standardized instructional goals such as “students will demonstrate the ability to access valid health information and health promoting products and services\textsuperscript{47}” place the onus on the individual student as exclusively responsible for their sexual health. This reductionist approach minimizes, or ignores the influence of social structural inequities that place some populations at disproportionate risk for sexual health problems or limits on their sexual expression or autonomy. For example, PeaceCorps videos are cited in the Rhode Island common core curriculum as essential video resources for understanding contraceptives\textsuperscript{48}. But the videos are inaccurately captioned on YouTube (the public access site) and therefore not accessible to Deaf students. This point of accessibility is not control-able by Deaf students making the instructional goal impossibly standardized.

\textsuperscript{46} Wanyonyi, Hellen S. "Youth Sexual Behaviour and Sex Education." *International Journal of Education and Research* 2.3. 2014
\textsuperscript{47} Rhode Island department of education’s comprehensive health instructional outcomes. 2012. Instructional goals. p 12.
\textsuperscript{48} Rhode Island department of education’s comprehensive health instructional outcomes. 2012

29
Further, the common core uses the same set of assumptions about how students are perceived in American society. Due to stigma and cultural associations about teenagers with disabilities, the assumption that teens are perceived as sexual in society does not hold. In fact, people with disabilities are more commonly positioned as asexual—incapable of or uninterested in sex. This Western cultural assumption removes sexuality from the identity of disability, which simultaneously diminishes the opportunity for students with disabilities to express themselves as sexual beings. This is a systemic, cultural oppression that is not addressed in the individual-centered common core curriculum. Working from that context requires an entirely different approach to sexuality education.\textsuperscript{49}

In 2012, The National Sexuality Education standards (NSES) published by the Future of Sex Education in the United States. The framework of NSES is “a socio-ecological philosophy aimed at promoting prevention and wellbeing of the holistic student.” It focuses on the community, individual, and interpersonal influences that shape the discourse of sex education and looks at the public school classroom as a historical and political space. It proposes a new, critical framework for sex education, “where sexuality and reproductive struggles are linked to fights inequity, school finance, healthcare, prison reform, affirmative action and access to higher education.”\textsuperscript{50}

\textsuperscript{49} Queer theory has a lot to offer disabilities studies and vice versa. Robert McRuer considers what might be gained by understanding queer theory as a key concept in disability studies McRuer, Robert. "Disabling Sex: Notes for a Crip Theory of Sexuality." GLQ: A Journal of Lesbian and Gay Studies 17.1 (2011)

In the local knowledge systems of Kenya, the assumption that sexual health is the responsibility of an individual does not hold. In some Kenyan tribes (Nandi and Maasai) the conception of disease is significantly different from the Western definition. Disease and by extension health are signs of the social or cosmic state projected onto the human body. Therefore, it is not the responsibility of the individual to rectify or prevent disease but rather the obligation of the whole community. Sexually transmitted infections in Maasai culture are linked not only to sexual activity, but also to prolonged drought, cattle loss, and lying\textsuperscript{51}. This framework suggests a much more community based understanding of sexual health responsibility. The Westernized curriculum taught in Kenyan Deaf schools does not embrace this local knowledge, but rather defaults to the Western principles of personal responsibility\textsuperscript{52}.

\textit{Sex education as a ‘scientific’ curriculum}

Most public school science classrooms in America, influenced by the curriculum of the common core, practice a reductionist framework for teaching science. Science, as taught in the US classroom, is a method of accumulating truth, as a quantitative measure of data – free from socio-cultural bias. In their research on the nature of science in science education, McComas, Almazroa, and Clough - all educators and researchers - suggest that science epistemology implies that the methodology of science results in

\textsuperscript{52} Wanyonyi, Hellen S. "Youth Sexual Behaviour and Sex Education."\textit{International Journal of Education and Research} 2.3. 2014
“objective knowledge about the real world”. This framework ignores the historical, philosophical and sociological foundations of science that ground teaching in experience. Conceptualizing science as a value-free, objective truth sways the curriculum in a science classroom to focus on the truth-making practices of the discipline rather than the history and practice of science-in-action.

Sex and sexuality education in US public schools begs the reexamination of the objective nature of science. The history of politics, of biotechnologies and the ethical and social implications of sexuality sciences provide valuable platforms for students to engage with the history of science. In her paper, Bio-Pedagogy: Genetic Literacy and Feminist Learning, Michelle Sidler, a feminist biologist, explains that “researching biotechnologies involves researching situated knowledge, or —celebrating and resisting scientific advances as complex, contradictory, social, political, personal, and biological spaces.” Suggesting that the body and by extension sexuality exist without a social context is reductionist and misleading.

In 2012, The National Academies of Science and the National Research Council proposed a new generation of science standards called A Framework for K-12 Science Education. This Framework built on the promising idea of extending science to American students’ lived experiences. The Framework for K-12 Science Education acknowledges that science standards have become disconnected from lived experience and suggests

---

schools as spaces of change. The Framework acknowledges that current science curricula are alienating for young people and how irrelevant health information fragments knowledge\textsuperscript{56}. Situating sex education in the experience of students compels educators to question how bodies, violence, health, power and desire are talked about and enacted in the wider world, as well as in public school classrooms. Sexual health sciences as expressed in American public school classrooms, are perpetuated through discourses, which reproduce the established structures of power. A critical analysis of sex education curricula can illuminate the humanistic side of health sciences and look into the ethics, arguments and evidence used to arrive at the science being taught.

Science over morality-centered sexual health education arose in Kenya in the early 2000’s in response to the HIV/AIDS epidemic. In 2007, a curriculum funded by the Dutch government called “The World Starts with Me” became the most successful sexual health initiative in Kenya. The curriculum was rolled-out to 11,000 schools across Kenya, including two Deaf technical institutes. This curriculum focuses primarily on the biology of sexually transmitted infections – especially HIV/AIDS. It additionally provides information about anatomy, pregnancy, and drug/alcohol abuse\textsuperscript{57}.

Normative discourse in sex education

The common core sex education curriculum, used in American public schools today, disables students through normative discourse. In constructing a widely applicable sex education curriculum, educators act to generalize from the experiences of able-bodied, white, male, heterosexual bodies, which, re-instantiates these bodies as the norm


\textsuperscript{57}Wanyonyi, Hellen S. "Youth Sexual Behaviour and Sex Education."International Journal of Education and Research 2.3. 2014
from which others deviate. Additionally, the system of normalizing bodies and sexualities acts to cover up non-normalized or normalcy-threatening existences.

A critique of the categorization of normalcy has been present in disabilities studies theory in America since the early 1980’s. Researchers such as Lennard Davis and Rosemarie Garland-Thomson have discussed the historical construction of normalcy in American culture, and it’s affects on people with disabilities. McRuer, a queer-theorist, suggests that like compulsory heterosexuality (a theory posited by Adrienne Rich), compulsory able-bodiedness “functions by covering over, with the appearance of choice, a system in where there is actually no choice.” The stigma and discomfort attributed to disability and sexuality is a product of the way society has constructed a limited and bounded definition of who can have sex. Compulsory able-bodiedness in sex education curriculum in the US works to reproduce the able body, but at the same time, this production relies on the existence of disabled bodies. This simultaneous co-existence means that able-bodied hegemony in the sex education field is constantly in danger of being disrupted.

In order to prevent disruptions to able-bodied hegemony, the RI common core withholding information about sexual/bodily diversity. This information could be helpful in enhancing people’s knowledge of their bodies and ability to maintain good health. A system of compulsory able-bodiedness assumes that able-bodied experiences, identities

58 See Lennard Davis’s overview of the historical emergence of normalcy in Enforcing Normalcy, p.23-49 and Rosemarie Garland-Thompson’s introduction to ‘normate’ in Extraordinary bodies p.8-9
and perspectives are universally preferable, and more valuable.\textsuperscript{61} For this reason, able-bodiedness is the un-addressed assumption in sex and sexuality education discourses. By ignoring the identity of disability in the discussion of sex teachers are using their pedagogical power to enforce stereotypes and stigmas about the sexuality of people with disabilities.\textsuperscript{62} By removing “normativity-threatening facts” from sex education classrooms, teachers are oversimplifying sexuality to a dangerous degree.\textsuperscript{63} As Foucault says, “we have not only witnessed a visible explosion of unorthodox sexualities...but the proliferation of specific pleasures and the multiplication of disparate sexualities.”\textsuperscript{64} By accepting and promoting the disability experience, public school sex education curriculums can transform the way the disabled existence has been defined by a system of compulsory able-bodiedness, insist that the system needs improvement, and imagine bodies and desires that are non-normative.

Normative discourses, similar to the ones discussed previously, exist within the Westernized sex education curriculum being used, today, in Kenyan Deaf schools. Meanwhile, a different sort of normalization takes place in Maasai culture. According to an anthropological research study done in Loodokilani, the Maasai seem to have institutional and cognitive instruments for coping with disability. They have historically entrenched processes of naming and marking disability that act to simultaneously normalize difference. In Maasai culture, it is not so much the assumption of able-

bodiedness that is compulsory, as it is the assumption of other social and cultural norms – such as childbearing for women\textsuperscript{65}.

In both America and Kenya, sex education frameworks are constantly interacting with the scientific community, society, religion, and morality. The historical underpinnings of religious morality in sex education classrooms in America and the involvement of religious NGO’s in the development of sex education curricula in Kenya (re)produce a hierarchy of moral positions undermining non-Christian, and local beliefs. Additionally, American sex education curricula focus on individual responsibility. This assumption does not translate to the local categorization of ‘disability’ in Kenya, and in the US, this assumption minimizes, or ignores the influence of social structural inequities that place some populations at disproportionate risk for sexual health problems or limits on their sexual expression or autonomy. By minimizing the degree of sexual autonomy individuals with disabilities are able to exert, sex education curricula are (re)producing a single story of who can access sexuality. In constructing a universally usable sex education curriculum across public schools in American or in Kenya, educators generalize from the experiences of able-bodied, white, male, heterosexual bodies, which, re-instantiates these bodies as the norm from which others deviate.

Chapter Three: Comparative Field Studies on Disability and Sexuality

The Locations and Populations:

Nairobi is a large, metropolitan city center - the capital city of Kenya. The total population of Nairobi is 3,138,369 making it the most densely populated region in Kenya. According to the 2009 census, 1,330,312 people with disabilities live in Kenya. Approximately 500,000 of them are profoundly deaf. Between 600,000 and 800,000 are deaf or hard of hearing and use Kenyan Sign Language (KSL) as their primary mode of communication. The urban deaf population in Nairobi is primarily of low socio-economic status, most often working in the informal sector, unemployed or day laborers. They are more likely to have low literacy rates, less access to healthcare and potable drinking water.

---


67 This is a rough estimation including the use of KSL, ASL (adjusted Swahili grammar) and home signs close to KSL for more see Kakiri, Nickson O. "Challenges Facing Deaf in Accessing ICT." 10-11th May 2012.

The Nairobi Deaf population is a tight-knit and relatively small community. They share common schools, churches, language and values. In Kenya, as in most of the world, the majority of Deaf children are born into hearing families. Though there are no statistics specific to Kenya, the WHO suggests that globally, approximately 90% of Deaf children are born into hearing families and about 88% of parents do not learn or teach their children sign language at home\(^6^9\). Discrepancies in primary mode of communication can result in poor communication, and lack of familial support\(^7^0\). These factors work to increase youth’s reliance on the greater Deaf community for socialization and strengthen the unity of the population. Deaf youth rely on residential schools, informal slum communities, and public markets as spaces for learning signed language\(^7^1\).

Kenya is a multilingual country. The two formal official languages are the Bantu influenced Kiswahili and English. Both are products of colonial influence. 69 local languages are widely spoken and localized by ethnoracial and geographic area\(^7^2\). Kenyan Sign Language is the official sign language of the country, but the vocabulary and grammar structure is not standardized. Local languages influence the form and function of KSL – constructing a myriad of KSL dialects. American Sign Language is also highly prevalent throughout Kenya due to a PeaceCorps project starting in 2002 that designed a


\(^7^0\) The research behind this statement was looking at how deaf children comprehended information in a mode of communication other than their primary mode of communication (i.e. English v. Signed language) for more see Shaw, Jeanne, and Janet Jamieson. "Patterns of Classroom Discourse in an Integrated, Interpreted Elementary School Setting." American Annals of the Deaf 142.1 (1997): 40-47.


curriculum and interactive CD for learning ASL that was distributed widely across Kenyan Deaf schools\textsuperscript{73}.

The highest concentrations of Deaf people are in the urban slum communities of Kayole, Dandora and Huruma. These slum areas are characterized by high poverty rates, low educational attainment, high unemployment, pollution and poor access to housing and transportation. Informal settlements attract Deaf youth who are able to find the community and social support they crave, at an inexpensive cost-of-living. Young, independent and undereducated, Deaf youth in slum areas have developed what is medically deemed a “high-risk lifestyle” that may increase their risk for sexually transmitted infections and complications\textsuperscript{74}.

According to the 2013 US census, Rhode Island has a population of 1,055,173 - roughly a third of the size of Nairobi. Approximately 177,994 people live in the city of Providence\textsuperscript{75}. An estimated 87,028 people in Providence are Deaf or hard of hearing. That accounts for roughly 8.6% of the population – which falls with in the range of the national average\textsuperscript{76}. Over time,

\begin{figure}[h]
\centering
\includegraphics[width=\textwidth]{map.png}
\caption{Map of Providence (GoogleMaps)}
\end{figure}

\textsuperscript{73} ASL is still used as the primary language at the Karen Technical Institute - a major Deaf school in Nairobi. For more information on the PeaceCorps project see http://www.peacecorps.gov/ksl/
\textsuperscript{75} U.S. Census Bureau: State and County QuickFacts. Rhode Island 2014.
\textsuperscript{76} National Average estimates range between 8-12% Rhode Island Commission on the Deaf and Hard of Hearing. \textit{Fact Sheet}. 2009
Providence has seen its Deaf population decrease. A key informant at the Rhode Island School for the Deaf suggested this population shift might be due to families moving over the RI/Mass state line to be closer to attractive private/chartered Deaf schools – a trend that was corroborated by multiple teachers at the Rhode Island School for the Deaf. This trend has worked to stratify the Rhode Island Deaf population by socio economic status. While wealthier families move out of the Providence area – the remaining Deaf community is of lower socio-economic status, is less likely to have access to social services, education, interpreter services, and enrichment programing.

The Providence Deaf community is a thriving and proud social group. The small geographic size of the state does not interfere with the activity of the community. There are over 15 organizations (governmental and private) for Deaf and hard of hearing individuals in Rhode Island– including social clubs, political groups, and religious organizations. Still, members of the Deaf community encounter barriers to sexual healthcare and treatment because of the lack of high-quality health information in ASL and poor cultural and language concordance with health care providers. Approximately 500,000 people in the United States learn ASL at home or at school and use it as their primary mode of communication while only a few physicians are fluent, or provide exceptional interpretation services. A study in Rochester, New York suggested that lower-income Deaf people report lower rates of HIV testing than corresponding groups

77 Information from personal interviews with parents and teachers at the Rhode Island School for the Deaf, February 2015
79 I found 11 in a 200-mile radius of Providence, RI using the technology of DeafHealth.org. A patient reported crowd sourced tool for assessing medical experiences.
from the general population sample. This seems to indicate that there could be less access or interaction with a medical system in Rhode Island based off of the income status of the Deaf community here.

Current State of Sex Education:

In the past 10 years, Kenya has been rolling out a series of mass-marketing campaigns promoting voluntary sexually transmitted infection (STI) counseling and testing (VCT) services to the general population. In 2001, Kenya launched a 4-phase operation, consisting of radio, TV, billboard and newspaper ads. None of the materials were interpreted into KSL and there were no follow up studies conducted with the Deaf population to assess efficacy. In fact, prior to 2003, there were no curricula, training materials, or interpretation services offered to the Deaf community in Kenya.

In 2003, the HIV counseling and testing program for the deaf started to produce Deaf Friendly sex education materials. This correlated with the Governments recognition of Kenyan Sign Language as a National Language, also in 2003. The Liverpool VCT was the first organization to produce IEC materials in Nairobi. They reported facing numerous barriers in recruiting consistent funding, standardizing signs for sexual and HIV vocabulary and distributing materials to rural Kenya where the disease burden is reportedly higher. The VCT’s dissemination techniques followed a grassroots approach.

---

80 Thew, Denise, Dr., Scott R. Smith, Dr., Christopher Chang, Dr., and Matt Starr."The Deaf Strong Hospital Program: A Model of Diversity and Inclusion Training for First Year Medical Students." *Acad Med.* 87.11 (2012): 1496-500.
83 For a list of countries that recognize a signed language as an official language and the years of recognition visit http://wfdeaf.org/
that was more accepted by the Deaf community. In a review study, it was found that Deaf clients were more likely to have learned about VCT services from community meetings, religious meetings, and peer education programming than from newspapers or mass media campaigns.\(^8^4\).

The Rhode Island Public School system uses a common core curriculum for sexual health education called, Health Literacy for All Students in conjunction with a supplemental curriculum called The Comprehensive Health Instructional Outcomes. The documents outline specific topics with performance descriptions for each standard. The outcomes are grouped by grade level (K-4, 5-8, 9-10, and 11-12), for each of seven major health content areas.

Each of the topical units describe what all students should know and be able to do in health education – specifically pertaining to the major health content areas. The performance descriptions – used for measuring the standards - suggest how students at various grade levels can demonstrate their learning along the path laid out by the curriculum. These goal markers are not meant as strict regulation. Rather, curriculum development teams and teachers are encouraged to follow their own versions of the health education curricula.\(^8^5\).


\(^{85}\) Rhode Island department of education’s comprehensive health instructional outcomes. 2012. To see the health outcomes referenced in the accommodated curriculum I designed, see appendix.
Methods

In order to look at how Deaf youth receive information about sex and sexuality. I needed to ask, what are the power structures in play that control sex and sexuality knowledge? I looked to Foucault for how power is implicated in the production of knowledge and truth. Foucault describes sexuality as a network of knowledge and power interplay. The “stimulation of bodies, the intensification of pleasures, the incitement to discourse, the formation of special knowledge, the strengthening of controls and resistances, are linked to one another, in accordance with a few major strategies of knowledge and power.”

Thus, I aimed to analyze the ways in which sexuality knowledge existed and extended in the Deaf community. The discourses or lack thereof about sex and sexuality dictates a certain amount of knowledge and understanding especially in fields that require what Foucault calls “special knowledge”. The controlling and stifling influence of the socio-cultural environment surrounding societies perception of people with disabilities produces specific discourses that conflated sexuality with ability discourses. For many students I interviewed, a repression of sex education in formal environments meant they created their own discourses to explain sex. In all cases, power and knowledge structures were constantly interfacing with one another in the proliferation of multifaceted discourses about sexuality and disability.

The goal of my research study was to analyze the discourses that influence how Deaf youth perceive and understand the information they’ve received about sex and sexuality. The questions that guided this study were the following: What factors influence

---

how Deaf youth perceive sex and sexuality? What are their current understandings of sexual health? What are the structural and institutional barriers to care and knowledge that Deaf youth face? How do students articulate the co-identities of sexuality and disability?

Kenya

A review of current literature was conducted to establish a baseline understanding of the issues surrounding sex education in Deaf communities and to develop a relevant questionnaire. Ten key informant interviews, consisting of a series of open-ended questions, were conducted with the help of a KSL to English government certified interpreter to ensure relevance and to inform adaptation of the project to the Kenyan Deaf cultural context. Key informants included the disabilities chairperson at the Liverpool VCT, the research coordinator and head teacher at DeafAID, the founder of SahayaDeaf Kenya, the dean of students and counselor at the Karen Technical Institute representatives from the Deaf Welfare Society and the coordinator of HOPE from USAID. This initial research informed the design of an interview questionnaire based on the research methods, surveys and qualitative assessments frequently used in the field.

The questionnaire draft was taken for review by a Kenyan Sign Language (KSL) teacher, who was able to assist in writing out a gloss (written sign) of the questionnaire in KSL. She adapted the questionnaire to better suit translation into signed languages. The questionnaire was then passed to a Deaf VCT counselor. He analyzed the questionnaire for accuracy and acceptability. Modifications were made to address stigma and confidentiality. He also edited the gloss to incorporate signs more commonly used in Nairobi slang. The questionnaire was reviewed by a Deaf technical college teacher, as a
native signer\textsuperscript{87}, he was able to best analyze the acceptability of the glossed survey. He made minor adjustments for clarity.

A pilot study was conducted using the edited questionnaire. Informed consent was secured by distributing an Informed Consent Form. A group of Deaf youth reviewed the informed consent form written in English, and the questionnaire also in English for clarity and to appropriate the survey toward a youth audience. The pilot study included five interviews conducted by the researcher in an informal setting. The participants were gathered by convenience sampling - they volunteered after receiving a brief project description at the Mombasa Deaf Awareness Week closing ceremony.

After completing the pilot study, the survey was administered at the Karen Technical Institute of the Deaf, at the Deaf VCT in Nairobi, at DeafAID, and at the Immanuel Church for the Deaf. The participants were recruited through the snowball sampling due to the hidden aspect of the Deaf population in Nairobi. Participants had to be between 18-35 years old and self-identify as Deaf or hard of hearing. These were the only exclusion factors. An attempt was made to network both genders into the study, also participants from all tribes, socio economic backgrounds and education level. The snowball sampling is inherently biased, but the greater number of interviews allowed for some generalization.

Ten interviews were conducted with the help of a KSL to English interpreter. Then, due to cost and availability of the interpretation services, a paper survey was used to complete the research due to time constraints. This method probably hindered accuracy of results due to low literacy rates in the Deaf community, and the fact that I was unable

\textsuperscript{87} This is a term used to refer to someone for whom sign language was their first language.
to guarantee that participants understood the survey and answer accurately. Fifty paper surveys were collected. Informed consent was obtained through the distribution of an Informed Consent Form that was written in either English or Kiswahili. KSL signed consent was obtained for those who were unable to completely understand the written consent form, usually by a bystander or another participant. Surveys were offered in written English, written Kiswahili, ASL, or KSL. I was able to sign the ASL version of the questionnaire. A sex educator who came with me was able to sign in KSL. In some cases a combination method was used for clarity. Names were replaced by a simple code. The de-coding sheet was kept in a separate password-protected file from the original surveys. The Kenyan surveyed population consisted of Deaf participants, ages ranging from 18-35 with an average age of 22. There were 19 Female and 41 Male participants. The participants came from 35 different neighborhoods in Nairobi.

Rhode Island

Upon returning to the United States and Brown University, I was able to conduct a comparative research project with 25 high school age participants at the Rhode Island School for the Deaf. Mimicking the methods done in Kenya, I first conducted five signed interviews with the help of the health educator at the school. Then a paper survey was used to complete following twenty responses. Informed consent was, again, obtained through an Informed Consent Form that was written in English or signed if preferred (by the health educator). Surveys were offered in written English, ASL, or total

88 While my ASL was practiced enough to make the survey clear to participants, it is important to acknowledge that I am by no means fluent or conversational in ASL – I learned ASL in college as my third language. Ideally a Native ASL user would have conducted these interviews but due to time and resource constraints, this was not an option.
89 The health educator is Deaf and a fluent ASL user.
communication: which the teacher was familiar with. In most cases a combination method was used for answering questions. Names were replaced by a simple code. The de-coding sheet was kept in a separate password-protected file from the original surveys. The Rhode Island surveyed population consisted of Deaf participants, ages ranging from 16-20 with an average age of 19. There were 15 Female and 10 Male participants. This is an obviously skewed sample due to the fact that the research took place the Rhode Island School for the Deaf (RISD). This is a convenience sample – more than 90% of Deaf or hard of hearing people in Rhode Island do not attend RISD.

Limitations:

Time was the biggest limitation of these comparative studies; because of the short research time, the population size and sample were affected. Limited time, combined with the specific nature of the Deaf community, meant it was most practical to use snowball sampling. However, this method of sampling adds a bias because it inherently draws from a population of overlapping social spheres. The first few participants determine the rest of the sample. Because snowball and convenience sampling anchors the sample population in a characteristic sphere, it is impossible to tell whether their responses are actually indicative of the target population as a whole. For example, in this research, the sample was rooted in educational institutions, which meant 80% of participants were full time students. This demographic tends to know more about sexual health and sexuality and therefore highly sways the results of the research.

Another time-based limitation was that there was not enough field time to gain the appropriate amount of trust needed to conduct a survey on a sensitive topic in a
vulnerable population. Having an open discussion about sex requires a level of trust and comfort that was impossible to establish in the allotted time. This limited the kinds of questions I was able to ask and forces the reader to assume that all participants were not completely forthright in their responses.

Language was another barrier; I am a novice Kiswahili speaker as well as a beginning KSL signer. While I am more proficient at ASL, I am still not native or certified in interpretation. This meant that interviews took significantly longer because of clarity questions and some information was probably lost in poor translation. Additionally, I am hearing and not a full-time member of the Deaf community in either of my study locations. Further, I am not from the same racial/ethnic background as the participants in this study, so I bear biases and assumptions relative to my cultural background. Ideally, this research would have been done by or with the help of a Deaf, native signer, and community member in the study locations.

For Informed Consent, Data, and Surveys please refer to Appendices.
All of the participants in the two study locations self-identified as Deaf or hard of hearing. The study population consisted of people with genetic and acquired deafness, though most participants acquired deafness at a young age. All interviewees were between the ages of 16-35 with an average age of 20. According to the UN Declaration of Commitment on HIV/AIDS, the international community intends to reduce the prevalence of HIV in youth by at least 25% in coming years. Youth are identified as one of the most-at-risk-populations due to prevalence of high-risk activities, and low health-seeking behaviors.

85% of the participants went to Deaf schools – this percentage was skewed due to the fact that I interviewed at two Deaf schools. The others attended Deaf Units in public schools, went to hearing schools or attended technical institutes. In the US, less than 20% of Deaf youth attend Deaf schools, there is no data about this percentage in Kenya. A survey by Deafax, a British NGO, found that 35% of Deaf schools provided no sex education curriculum. It can be extrapolated that, because most respondents went to Deaf schools, they received little-to-no formal sexual health education. 95% of

90 For more on the international commitment to sexual health education and HIV/AIDS reduction see “UN Declaration of Commitment on HIV/AIDS.” UN N.p., 2001
91 This statistic is calculated by looking at the populations in Deaf schools and abstracting a percentage from the national population of Deaf individuals, all of these numbers are estimates so there is a high margin of error propagation. Suggs, Trudy. "Percentage of Deaf Staff at Deaf Schools." DeafNation Online Newspaper. N.p., 23 Jan. 2008
participants reported using a signed language at school. “It’s hard for information dissemination with the Deaf because there are no standard signs for sex vocabulary,” reports a Kenyan sex educator, “everywhere we go we have to change to the local sign.” This kind of inconsistency was also recognized at the Rhode Island study site “Many of the kids use slang signs and don’t recognize the real signs,” said one health education teacher. Inconsistent vocabulary lowers the impact of sexual health education campaigns.

A majority of the survey participants came from hearing households. 36% of participants used signed language at home, 35% used a home-sign or total communication (a mixture of signed and spoken language) and 32% used primarily oral communication. In a study looking at knowledge about HIV/AIDS and barriers to prevention education in Deaf and Hard of Hearing people in New York State, interviews showed that Deaf ASL users had less knowledge about HIV/AIDS than oral deaf and hard of hearing participants. The participants who responded that they used primarily oral communication usually became deaf at a later age and had received some sex education before becoming deaf. This trend varied by country in the study population at hand. The trend held for individuals who used oral communication in Kenya – many of who became deaf later in life. The trend was almost reversed at the Rhode Island School for the Deaf. The students who used oral communication were often born deaf but used assistive technology such as cochlear implants and hearing aids. They tended to perform

94 For more information on the comparisons between hearing and Deaf students in the United States see Bat-Chava et al. "Barriers to HIV/AIDS Knowledge and Prevention among Deaf and Hard of Hearing People." (2005): 623-34.
lower when tested for knowledge of sexual health issues compared to their ASL using peers.

In Nairobi, 490,314 students attend primary school, 36% of them attend secondary school and 14% of them seek higher education. In Providence, 66,716 students attend public elementary school. 65% of them go on to high school and 55% of them go on to college. In a recent UNESCO study it was found that only 1-2% of children with disabilities receive education past a primary level. Deaf youth are 64% less likely to complete secondary school than their hearing peers. The amount of school one attends is directly correlated with the amount of school-based sex education one receives. This infers that Deaf students receive less formal sex education in addition to less official education in general.

Even though Deaf students are significantly less likely to have received sexual health information at school, 87% of survey respondents strongly agreed or agreed that they knew about sexual health issues. “Since, they don’t learn about sex in the school, you will find a lot of Deaf [people] go to seminars and workshops about sex and health,” said one key stakeholder in the Deaf community in Nairobi. In fact, in a cross-sectional survey of Deaf Kenyans, among respondents who said they did not receive health

---

95 These numbers are generalized from the Kenya Census 2009. Wycliffe A. Oparanya. Nairobi, Kenya, 2010
97 This study was done in Rwanda and Uganda; I am using this data to suggest the situation in other post-colonial East African countries such as Kenya. Yousafzi & Edwards. Double Burden: A Situation Analysis of HIV/AIDS and Young People with Disabilities in Rwanda and Uganda. 2004.
99 This study assessed formal sex education exposure of students who completed elementary school, high school, 2 year college, and 4 year college. Heuttel & Rothstein. "HIV/AIDS Knowledge and Information Sources among Deaf and Hearing College Students." (2001)
100 Personal Interview. Charity Evanson. 11/11/2013
education at school, 95% of Deaf participants said they had received HIV/AIDS education before and 58% said they had within the last 6 months. 57% of respondents in this study – both in RI and Nairobi - said they would be interested in going to a sex education class outside of their formal schooling. In both study locations, it appears Deaf youth are eager and willing to learn about sex and sexuality through community-based educational seminars and workshops.

It appears, then, that Deaf people are able to access health information in some capacity, but without standardization and regulation, it is hard to guarantee the quality of information received. For example, one study showed that 86% of Deaf participants were aware of HIV/AIDS and its transmission but at the same time they still believed in false modes of transmission – for example 41% said that mosquitoes could transmit HIV. Additionally, in a study assessing knowledge of HIV/AIDS in the Deaf youth community, only 41% of Deaf students answered 9 or 10 out of 10 questions correctly compared to 91% of the hearing students. Furthermore, 38% of Deaf students answered fewer than 7 questions correctly compared to only 4% of hearing students. In another study, only 47% Deaf participants were able to answer more than 7 out of 16 HIV knowledge questions correctly, 100% of their hearing peers answered more than 8 out of

---

103 Heuttel & Rothstein. "HIV/AIDS Knowledge and Information Sources among Deaf and Hearing College Students." (2001)
16 correctly\textsuperscript{104}. These statistics indicate the severity of the knowledge gap between Deaf and hearing students.

The participants of the current study all reported having some prior knowledge of sexual health issues. Still, only a little more than half (52\%) of the participants were able to identify that using a condom decreases the risk of contracting a sexually transmitted infection, while the rest, 48\%, said that there was no effect. This indicates a need for further sex education and echoes the previous conclusion that one-time, basic education is not enough. Attendance at seminars and workshops cannot be used as an indicator for understanding in the Deaf community, further assessment shows that the quality of information or the ability to internalize and synthesize information presented is lacking and leads to serious misunderstanding.

It is encouraging to see that students were more knowledgeable about aspects of HIV/AIDS epidemiology. 60\% knew that AIDS weakens the body’s ability to fight off disease. 65\% said HIV/AIDS was life threatening. 65\% said it was preventable. 75\% said it was not curable. 62\% said it could be controlled with medication. The accuracy shown here indicates a high level of disease understanding. But that understanding is not reflected in the student’s knowledge of risk behaviors. This seems to indicate that information has been disseminated about the disease itself, but with less focus on attitudes and behaviors for prevention. This is substantiated by looking at the percentage of NGO’s dedicated to HIV/AIDS prevention versus education in Kenya. There are at least 150 NGO’s specifically dedicated to monitoring and controlling HIV in women in

\textsuperscript{104} Bisol et al. "HIV/AIDS Knowledge and Health-Related Attitudes and Behaviors Among Deaf and Hearing Adolescents in Southern Brazil."(2008): 349-56.
Kenya – and there is a list published every year by UNAIDS. There is no list for education NGO’s, but it appears there are roughly half as many\textsuperscript{105}.

This theory was further supported by the fact that medium and low risk behaviors were harder for students to identify. For example, 57% of respondents correctly acknowledged that holding hands and hugging had no effect on your risk of contracting an STI but only 47% said oral sex increases risk while, 39% said it had no effect and 52% said that abstaining decreases risk but 40% said that it had no effect. 48% of students said that asking your partners STI status was not enough to decrease your risk of contracting an STI and 48% of participants said that having strong, healthy relationships doesn’t change the risk of contracting an STI. 47% said that learning about sexual health in sex education classes decreases risk but 30% said it had no effect. The reported percentages are not significantly different: this shows that students believe many of the listed behaviors pose no significant risk to their sexual health when, in fact, these risk behaviors can be just as dangerous as more commonly known high-risk behaviors.

Students were much better at identifying high-risk behaviors. For example, 67% said that exchanging sex for money was a highly risky behavior. 48% of students correctly identified drinking alcohol as increasing risk. 57% of respondents said that having multiple sex partners increases your risk of a sexually transmitted infection. 63% of students said that using contaminated needles for drugs increases your risk for STI’s like HIV. This shows that there has been some information disseminated to this population but there is a need for greater depth and understanding insurance for more complex facets of sexual health.

\textsuperscript{105} For the full list of organization see Organizations Working in Kenya to Address HIV and AIDS in Women. Nairobi: UNAIDS, 2006
**Perceived risk and Self-Efficacy:**

Perceived risk or susceptibility refers to an individual’s estimation of their chance of contracting an illness or developing a condition. Across a multitude of studies, perceived risk has been closely connected to sexual health risk behaviors. It’s been suggested that perceived susceptibility is required before behavior change can occur in high-risk populations. In this study, 65% of Deaf students reported being concerned about their sexual health and 50% agreed that their friends are concerned about sexual health issues. This would suggest perceived susceptibility. In the largest recorded study consisting of 1709 Deaf Kenyans, 80% of participants perceived themselves as “at risk.” In interviews with disabled adolescents, multiple Deaf participants described anxiety about becoming HIV positive due to already experiencing hardship as a consequence of their disability. Deaf youth perceive themselves as a vulnerable population.

One study found Deaf adolescents are 43.1% more likely to see themselves as at risk when compared to a hearing peer. However, in this study, when participants were explicitly asked to compare the hearing community to the deaf community the totals of the responses were fairly similar across the board showing that there is little perceived risk differential between the two communities. For example, 1/3 of participants said Deaf

---

people were less likely to know about sexual health issues, 1/3 said they were equally as likely and 1/3 said they were more likely to know about sexual health issues. Furthermore, 63% of Deaf participants said that compared to other people of their sex and age, they are less at risk for contracting an STI. This indicates that while Deaf youth see themselves as a vulnerable population, they see their hearing peers as equally, if not more, vulnerable.

In terms of self-efficacy surrounding sexual health issues, 55% of students strongly agreed or agreed that they have little control over their sexual health. In interviews with disabled and non-disabled teens, low self-efficacy and low self-esteem among disabled peers in relationships were cited a significant number of times. For example, some mentioned that disabled partners (especially girls) have little control in negotiating safer sex because they should feel “grateful” to be in the relationship in the first place.\textsuperscript{110} Deaf girls and women are at particular risk of unhealthy sexual experiences because they tend to experience fewer stable relationships and are more often victims of abuse. They also tend to have lower self-esteem and less confidence navigating sexual and emotional connections. They also report feeling embarrassed or unequipped to negotiate safer sex practices with non-disabled partners.\textsuperscript{111}

While participants felt they had little control in their sexual health, 58% disagreed or strongly disagreed that there was nothing they could do to educate themselves about sexual health issues. And 77% said that if they could control the risk factors for STI’s then they could prevent the infection. So, it seems that the respondents feel they have significantly more control over risk factors and behaviors rather than sexual health

\textsuperscript{111} Personal Interview. Jakki Odewesso, 12/11/2013
outcomes. This is a positive sign of readiness in the Deaf population because it suggests that Deaf youth possess feelings of agency that they can reduce their risk through behavior change. Generally, Deaf youth are proud of their overall health, 82% felt their daily actions were good for their health.

**Risk Behaviors:**

When looking at risk behaviors, 37% of respondents said that Deaf people were more likely to have sex before 16 compared to their hearing peers. 48% they would have (or have had) sex before marriage. According to the literature, Deaf people become sexually active slightly before their hearing peers. But the ages are comparable with Deaf - age16 - and hearing at 16.5 years\(^{112}\). In one study, 37% of Deaf participants reported engaging in sex before 16\(^{113}\), which proves that sex before the age of consent, happens in this community. In a study of Deaf adolescents in comparison to hearing peers, Deaf teens reported statistically similar sexual activity over a 12-month period\(^ {114}\). This suggests that Deaf adolescents, like their hearing peers, are in need of prompt and accurate sexual health education.

Even when risky sex was proposed - if your partner won’t have safe sex, you will not have sex with them - responses were inconclusive, evenly distributed from strongly agree to strongly disagree. 43% of participants in this study said that Deaf people were more likely to have multiple sex partners. In the Steadman group study, 20% of Deaf

---


participants said they had had sex with multiple partners and 14% said they had occasional partners. Once again proving the prevalence of this behavior and substantiating the risk level in the Deaf population.  

40% of this studies participants said Deaf people were more likely to be victims of sexual abuse. In the literature, it was found that girls who are disabled are twice as likely to be raped or forced into sex than their non-disabled peers. Also, in a study comparing Deaf and hearing students, 31% of Deaf participants reported being victims of sexual abuse compared to only 2% in the hearing community. In addition, a cross-sectional survey found 7% of Deaf participants indicated abuse at their first sexual encounter. In discussions with disabled youth, rape was mentioned in all focus groups. Incidence of sexual abuse and rape are alarmingly prevalent in the Deaf community. Not only is this a calamity of human rights, it also increases the risk of sexually transmitted infection in this population.

42% of participants in this study said that Deaf people were more likely to know their STI status and 67% said they would be interested in being tested for STI’s. In the literature it has been found that, indeed, more Deaf people get tested compared to their hearing peers (21.4% vs. 8%). 42% of respondents in this survey said they knew someone who had/has an STI and 58% said they did not. In a study comparing hearing

---

116 Cheng & Udry, 2001  
and deaf adolescents, 19% of deaf participants said they knew someone with HIV/AIDS, while the hearing participants knew no one\textsuperscript{121}. In another study, 65% of the deaf participants reported that they knew someone who was HIV positive in their area\textsuperscript{122}. It seems that Deaf people are more likely to know their status, and the status of others in their community.

A possible explanation for why Deaf communities are more aware of each other’s STI status has to do with the Deaf culture “grapevine”. Numerous interviews cited that the close-knit Deaf community is notorious for gossip. “You can say one thing in the morning and everyone knows by tea,” said one interviewee\textsuperscript{123}. While STI status is usually a well-maintained secret in the hearing community, Deaf people tend to know which of their peers are “living positively”. While knowing the status of ones partner is helpful in preventing sexually transmitted infections, the lack of confidentiality can be a deterrent from testing for Deaf people.

53% of respondents in this research project said they would be interested in using a condom during sex. While it’s promising that this number is over half, it is still shockingly low. The low level of condom use is reflected in focus group interviews with Deaf and hearing university students. Condoms were mentioned 45 times in short open-ended interviews by Hearing participants and only 15 times by Deaf participants\textsuperscript{124}. The low level of interest in protected sex denotes a high prevalence of high-risk behavior.

\textsuperscript{121}Bisol et al. “HIV/AIDS Knowledge and Health-Related Attitudes and Behaviors Among Deaf and Hearing Adolescents in Southern Brazil.” (2008): 349-56
\textsuperscript{123}Personal Interview. Charity Evanson. 11/11/2013
\textsuperscript{124}Bisol et al. “HIV/AIDS Knowledge and Health-Related Attitudes and Behaviors Among Deaf and Hearing Adolescents in Southern Brazil.” (2008): 349-56
Barriers to behavior change:

Across a systematic review of studies on the topic, it was found that counselors, practitioners, nurses and police officers are often not able to effectively communicate with Deaf people\textsuperscript{125}. In a comprehensive study analyzing barriers to HIV/AIDS knowledge and prevention among Deaf and hard of hearing communities, almost all participants reported communication barriers with medical providers\textsuperscript{126}. In this study, 78\% of participants reported that they went to the hospital when they were sick but only a few people said their medical provider understood sign language. 32\% of respondents have family members translate for them and 45\% said they rely on writing back and forth. When providers don’t understand sign language, the Deaf communities primary form of communication, it can be hard for Deaf patients to independently express their symptoms, ask for help, and ultimately understand the complicated disease of HIV.

In a study on HIV information and services, Deaf participants sited dependency on translators/interpreters as one of the major barriers in utilizing STI testing services because of the fear of confidentiality being compromised\textsuperscript{127}. Adolescents with communication disabilities were most likely to have concerns regarding confidentiality. Deaf teens were likely to acknowledge that the STI testing and counseling process was supposed to be confidential, but they raised concerns about the contract of a third person either a family member, friend or interpreter who might gossip\textsuperscript{128}. “Going for a test is not

bad, but you know that testing has to be a secret, but by the time you go with an interpreter then you are three people now,”¹²⁹ said one Deaf teen. Generally, 89% of respondents rated their satisfaction with the healthcare system, as acceptable, only 4 respondents were happy with the healthcare system they interfaced with.

The low satisfaction levels with the healthcare system force Deaf adolescents to look for health information sources outside of the mainstream system. 83% of respondents to this survey said that they get most of their sexual health information from friends and peers. In a study of 34 Deaf Undergrads and 46 Hearing undergrads at competitive higher learning institutions in the US, a survey that assessed knowledge and sources of information about HIV/AIDS. 88% of Deaf participants said they get “a lot” or “some” of their sexual health knowledge from friends this was in contrast to 16% of their hearing peers¹³⁰. This showed me that students value the knowledge of their peers.

Further, that it may be the most accessible format for receiving special knowledge about sensitive topics like sexuality.

¹³⁰ Heuttel & Rothstein. "HIV/AIDS Knowledge and Information Sources among Deaf and Hearing College Students” (2001)
Chapter Five: A New Curriculum

After decades of sex and sexuality research in the US and in Kenya, data on sex education in the Deaf population in these locations is still disproportionately neglected. Studies need to be conducted to assess and monitor prevalence, awareness and mode of sexually transmitted infections in Deaf communities. Additionally, prevention and education campaigns need to be tailored to meet the specific needs of this highly vulnerable population. Lack of appropriate and productive STI prevention interventions for the Deaf population poses a significant public health and human rights challenge. This population is less likely to receive timely preventative care and bear a bigger burden of disease than their hearing counterparts while at the same time are more likely to experience discrimination and barriers to accessing care because of their disability.

In order to provide sustainable and suitable risk reduction, the majority of successful sex education interventions required that individuals in the high-risk community had to first meet four standards. The community members had to perceive them selves to be at risk. Deaf youth do perceive themselves to be at some risk for sexually transmitted infection, but the risk is not deemed universal or urgent. This may be because there is no concrete evidence telling Deaf youth that they are an “at risk” population, and little anecdotal evidence that is made available to them. Data needs to be compiled to compel Deaf adolescents to heighten their perceived risk. A review of new programming at Gallaudet University in Washington DC, showed that HIV sensitivity
training, using peer education, is generally more acceptable in the Deaf community because the participants are able to witness firsthand the disease through a friend. This increases the perceived risk in the whole community.

The second requirement is community-wide intent to change their behavior to reduce risk. Based on the Deaf communities willingness to attend seminars and take part in extracurricular education materials it would appear that there is intent to protect themselves from sexually transmitted infections. However, there are inconsistent results as to the actual level of behavior change.

The third condition is that the community members possess feelings agency and self-confidence that they can reduce their risk through behavior change. This study showed that most Deaf youth feel they have some control, over mainly risk behaviors but that these feelings don’t necessarily translate to health outcomes. Further empowerment is needed in the youth community. Research shows that developing youth leadership enhances feelings of efficacy and agency. Deaf trainees have advantageous qualities in the dissemination of sensitive sexual health material. For example, where hearing participants have to be trained in attentive listening skills, eye contact and concentration, the Deaf trainees already exercise these characteristics due to Deaf culture. They are also more adept at reading and interpreting body language.

The fourth stipulation is that the community has to have the social support to initiate and maintain behavior change. In producing this study it was made clear that there is a vast amount of willing and eager individuals in the Deaf community who are passionate about finding accessible formats for teaching sex and sexuality education.
Based on the data collected in this survey and a review of literature. A peer-led extracurricular education campaign seems to be the best intervention idea. Additionally, a video-based multifaceted, language component would be suggested. Studies show that Deaf individuals who are native signers learned significantly more, and were able to retain much more from information and education materials delivered via videos filmed in ASL with captioning. They also found that the Deaf community could greatly benefit from multiple exposure or long-term exposure to the same health education message.

From this conclusion, I have filmed a set of short student-interpreted curriculum videos for distribution and use, both at the Rhode Island School for the Deaf (where the videos were filmed), and at the Karen Technical Institute in Nairobi. Seven unit videos follow the lesson plans of the common core, but are specified for the Deaf community. Each video is aligned with printed units and teacher resources. The videos are available online or in DVD format. The units and resources are also available online or printed. To see a sample of the curriculum please refer to the appendices.
Bibliography


Folkins, Ann, Georgia R. Sadler, Celine Ko, Patricia Branz, Shane Marsh, and Micheal Bovee. "Improving the Deaf Community's Access to Prostate and Testicular Cancer


Appendix A

Sexuality and Family Life Instructional outcomes for grades 5-8, 9-10, and 11-12 from the Rhode Island department of education’s comprehensive health instructional outcomes. 2012.
<table>
<thead>
<tr>
<th>Grading Period</th>
<th>Standard 1</th>
<th>Standard 2</th>
<th>Standard 3</th>
<th>Standard 4</th>
<th>Standard 5</th>
<th>Standard 6</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Students will demonstrate the ability to define and differentiate between healthy and unhealthy behaviors.</td>
<td>Students will discuss the importance of healthy relationships in maintaining a healthy lifestyle.</td>
<td>Students will understand the role of exercise and nutrition in maintaining a healthy lifestyle.</td>
<td>Students will analyze the impact of social media on mental health and well-being.</td>
<td>Students will evaluate the role of technology in shaping their daily lives.</td>
<td>Students will develop strategies to maintain privacy and security online.</td>
</tr>
</tbody>
</table>

**NOTES:**
- Students will analyze the impact of technology on their daily lives, including the ways in which it affects their relationships, productivity, and mental health.
- Students will develop strategies to maintain privacy and security online, including best practices for protecting personal information.
- Students will evaluate the role of social media in shaping their daily lives, including the ways in which it affects their relationships, productivity, and mental health.
- Students will analyze the impact of technology on their daily lives, including the ways in which it affects their relationships, productivity, and mental health.
- Students will develop strategies to maintain privacy and security online, including best practices for protecting personal information.
- Students will evaluate the role of social media in shaping their daily lives, including the ways in which it affects their relationships, productivity, and mental health.
Appendix B

Informed Consent:
Sexual Health Awareness of Deaf Youth in Providence/Nairobi

You are being asked to take part in a research study to assess sexual heath awareness of Deaf youth in Nairobi/Providence. I am asking you to take part because you self-identify as Deaf or Hearing impaired and are between the ages of 18 and 35. Please read this form carefully and ask any questions you may have before agreeing to take part in the study.

What the study is about: The specific objectives of this research are to assess adolescent awareness of the biology and social aspects of sexual health issues. Also to identify barriers faced by the Deaf population in accessing information about sexual health. To assess behaviors that impact the vulnerability of the Deaf population sexually transmitted infections and pregnancy. Finally, to inform and implement peer led sexual education program targeted toward Deaf youth in Nairobi/Providence.

What I will ask you to do: If you agree to be in this study, I will conduct a short interview with you in the language of your choice (depending on my ability I may use an interpreter). The interview will include questions about basic demographics, sexual health awareness, barriers to health, and health behaviors. The interview will take about 20 minutes to complete.

Risks: There is a small risk that you may find some of the questions invasive or sensitive. You should not feel pressured to answer any questions that cause discomfort. You are free to terminate the interview at anytime.

Benefits and Compensation: Your participation in the study will help to improve health education curriculums in the Deaf community. You will also be able to receive a copy of the final research paper upon completion.

Confidentiality: All of your answers will be kept confidential. A coding system will be assigned to your interview and your name will never be directly associated with your results. In any sort of report I make public I will not include any information that will make it possible to identify you. Data will be available to the primary researcher for 5 years and will be destroyed after 5 years.

Please ask any questions you have now.
If you have questions later, you may contact Keala Morrell at keala_morrell@brown.edu or at +254-0731824439 or 808-7212101
You will be given a copy of this form to keep for your records.

Statement of Consent: I have read the above information, and have received answers to any questions I asked. I consent to take part in the study.

_________________________________________  __________________
(Printed name)  (Date)

_________________________________________
(Signature or thumbprint and witness signature)
Appendix C

Key Informant Interview

1. Name:________________________________
2. Position: ______________________________
3. In your opinion what are the barriers that the Deaf community faces in accessing sexual health education?
   a. What about treatment for STI’s?
4. What policies are in place to specifically address the special needs of the Deaf community in regards to sexual health?
5. How does your profession/group/school/family work to over come the obstacles faced by the Deaf community?
6. What behaviors and attitudes qualify youth as a most-at-risk-population in Kenya?
   a. Are people with disabilities considered a Most-at-risk-population?
   b. What policies about sexual health are directed toward disabled youth in Kenya?
   c. Are there any policies crafted with the input of youth?
      i. What about people with disabilities?
7. What would you estimate to be the general level of sexual health awareness in the Deaf youth community?
   a. Are there goals or benchmarks for this population?
8. Do you know of an adapted sexual education curriculum focused toward the special needs and issues of the Deaf community?
   a. How would you craft a Deaf specific sexual health education curriculum?
9. What are the policies supporting the equality and inclusion of Deaf people in the sexual health awareness and STI and Pregnancy prevention?
10. How do you recommend Deaf youth become active participants in their sexual health?
    a. Does your profession/group/school/family support any peer led initiatives?
    b. How do you convey the importance of individual participation in sexual health?
11. Do you know of any other organizations I should contact in regards to HIV awareness and Deaf youth?
12. Would you like to receive a final copy of my findings?
Appendix D

In-Depth Interview

Demographics:
Name: ___________________________ Age: __________________
Gender: __________________________
Education: __________________________________________________________
Language: __________________________________________________________
Employment: __________________________________________________________
Where do you live? ___________________________________________________

Interview:
1. In your opinion what are the barriers faced by the Deaf youth community in regards to sexual health education?
   a. STI testing and treatment?
2. Do you know any policies that specifically address the special needs of the Deaf community in regards to sexual health?
   a. Do you feel the government has made effective policies in regards to this community?
   b. Do other companies, NGO’s or community groups work to fill the gaps left by government policy?
3. How do your friends work to over come the obstacles faced by the Deaf community in regards to sexual health?
   a. What kind of support do youth receive in terms of sexual health awareness and STI treatment?
      i. From whom does this support come from?
      ii. Who do you feel most comfortable talking about sex and sexual health with?
   b. Are you satisfied with the level of support?
      i. What could be done better?
4. Why do you think youth are considered a most-at-risk-population in Kenya?
   a. What behaviors/attitudes do your friends do/have that increase their risk?
   b. Do you think Deaf people are a most-at-risk population?
   c. If I told you they are not, would you be surprised? Why/Why not?
   d. Do you think any of the Deaf youth show any of the same behaviors/attitudes?
5. Have you ever been part of drafting policies or curriculum about Deaf youth and HIV?
   a. Would you be interested in being part of the decisions and interventions designed for the Deaf youth population?
   b. Why do you think you were/weren’t consulted before?
   c. How would a curriculum/policy written by Deaf youth be different from one written by the government or other adult hearing group?
6. Do you feel actively involved in your sexual health?
a. Who makes decisions about health programming and education for the Deaf community?
b. What about the youth specifically?
c. Does the current curriculum make you feel empowered?

7. What would you estimate to be the general level of sexual health awareness in the Deaf youth community?
   a. What is the most common way to get information about sexual health in the Deaf youth community?
   b. If you have a question about sex or sexual health, whom do you ask?

8. Where did you learn about sex? Sexual health and relationships?

9. Do you know any other youth I should contact who would be interested in supporting a Deaf youth led workshop on sexual health awareness?

10. Would you like to receive a final copy of my findings after I finish my research?
Appendix E

Administered questionnaire – supported by interpreter and researcher at all times

1. Your Age: ______
2. Your Gender: ________________________
3. Where do you live? _________________________________
4. How many people live in your house? ______
5. You went to a:
   - □ Deaf School
   - □ Hearing School
   - □ Technical Institute
   - □ Deaf Unit
6. How do you communicate at home?
   - □ Sign Language
   - □ Writing
   - □ Speak/Lip read
   - □ Local sign
   - □ Gesture
7. How do you communicate at school?
   - □ Sign Language
   - □ Writing
   - □ Speak/Lip read
   - □ Local sign
   - □ Gesture
8. Are you
   - □ Working
   - □ Unemployed
   - □ Volunteering
   - □ Full time student
9. What do you do when you are sick?
   - □ Go to a clinic/ hospital
   - □ Pray
   - □ I do not seek medical attention
10. How do you communicate with your medical provider?
    - □ Sign Language
    - □ Writing
    - □ Speak/Lipread
    - □ Help of a friend or family member
    - □ Using and interpreter
    - □ Doctor/Nurse knows sign language
11. Satisfaction level with medical services

- □ Bad
- □ Okay
- □ Good
- □ Excellent

Read the sentences and decide if the action:

<table>
<thead>
<tr>
<th>Action</th>
<th>Increases risk of STI</th>
<th>Has no effect on risk of STI</th>
<th>Decreases risk of STI</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Using a condom during sex</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. Asking about your partners STI status</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. Drinking alcohol</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. Learning about STI’s in sex education classes</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5. Having strong, healthy relationships</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6. Having multiple sex partners</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>7. Using dirty needles for drugs</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>8. Having unprotected sex with someone you know</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>9. Kissing/Hugging</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>10. Having oral sex</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>11. Abstaining from sex</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>12. Exchanging sex for money</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Read the sentences and decide if you:

<table>
<thead>
<tr>
<th>Sentence</th>
<th>Strongly agree</th>
<th>Agree</th>
<th>Disagree</th>
<th>Strongly disagree</th>
</tr>
</thead>
<tbody>
<tr>
<td>13. I have little control over my sexual health</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>14. There is not much I can do to protect myself from STI’s</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>15. I am concerned about my sexual health</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>16. My friends are concerned about their sexual health</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>17. Compared to other people of my sex and age, I am more at risk for getting an STI</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>18. I know how to maintain my sexual health</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>19. I can see when someone has an STI</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>20. I feel my actions are good for my health</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>21. If I have safer sex, I can prevent infection</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>22. I know where to get information/tested for STI’s</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>23. I get most of my sexual health information from friends and family</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>24. If my partner won’t have safe sex, I won’t have sex with that person</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Read the sentences and decide if, compared to hearing people, Deaf people are:

<table>
<thead>
<tr>
<th></th>
<th>More Likely to</th>
<th>Equally Likely to</th>
<th>Less Likely to</th>
</tr>
</thead>
<tbody>
<tr>
<td>25. Have an STI</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>26. Have sex before 18</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>27. Have multiple sex partners</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>28. Be victims of sexual abuse</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>29. Exchange sex for money, gifts or food</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>30. Know their STI status</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Read the sentences and decide if you are:

<table>
<thead>
<tr>
<th></th>
<th>Interested</th>
<th>Maybe Interested</th>
<th>Not Interested</th>
</tr>
</thead>
<tbody>
<tr>
<td>Being tested for STI’s</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Using a condom during sex</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Having sex before marriage</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Going to sex education classes</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Becoming a peer educator of sex education classes</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Appendix F

Research permit upon receipt and approval of IRB

---

NATIONAL COMMISSION FOR SCIENCE, TECHNOLOGY AND INNOVATION

Telephone: +254-20-2213471, 2241349, 310571, 2219420
Fax: +254-20-318265, 318249
Email: secretary@nacosti.go.ke
Website: www.nacosti.go.ke
When replying please quote

Ref: No.

20th November, 2013

NACOSTI/5/002/R/295/21

Keala Morrell
Thro': World Learning Inc
P.O.Box 21752-00505
NAIROBI

RE: RESEARCH AUTHORIZATION

Following your application dated 4th November, 2013 for authority to carry out research on “Urbanization, Health and Human Rights,” I am pleased to inform you that you have been authorized to undertake research in Selected Counties for a period ending 31st December, 2013.

You are advised to report to the County Commissioners, the County Directors of Education and the County Coordinators of Health of the Selected Counties before embarking on the research project.

On completion of the research, you are expected to submit four hard copies and one soft copy in pdf of the research report/thesis to our office.

DR. M. K. RUGUTU, PhD, HSc.
DEPUTY COMMISSION SECRETARY
NATIONAL COMMISSION FOR SCIENCE, TECHNOLOGY & INNOVATION

Copy to:

The County Commissioners
The County Directors of Education
The County Coordinators of Health
Selected Counties.
Appendix G

Survey Data Condensed

Ages 18-35
Ages 16-20
Average age 20
19 Female 41 Male
15 Female 10 Male
35 different neighborhoods
6 different neighborhoods
9-18 people in household, average 5
2-6 people in household, average 4
39 Deaf 6 Deaf Unit 3 Hearing 12 Tech Inst (85% Deaf schools)
25 Deaf
23 KSL 21 Writing 19 Oral 1 Local Sign 1 gesture (38%, 35%, 32%)
15 ASL 5 TC 5 Oral
57 KSL 3 Oral 4 Writing (95% KSL)
25 ASL
40 FTS 10 Working 4 Volunteers 6 Unemployed (80%)
25 FTS
47 Hospital 11 Chemist 3 Pray (78% Hospital)
25 Hospital
19 Family 27 Writing 4 Oral 2 Interpreter 8 KSL 3 Dr.KSL (32% Family 45% Writing)
10 Family, 10 Interpreter, 5 writing
34 Good 19 Okay 3 Bad 4 Excellent (57% Good, 32% Okay – 89% mediocre)
7 Good, 13 Okay, 5 Bad

Read the sentences and decide if the action Increases, has No Effect or Decreases the risk of HIV:

<table>
<thead>
<tr>
<th>Action</th>
<th>Decreases Risk</th>
<th>No effect</th>
<th>Increases Risk</th>
</tr>
</thead>
<tbody>
<tr>
<td>Using a condom during sex:</td>
<td>25 42%</td>
<td>28 47%</td>
<td>7 12%</td>
</tr>
<tr>
<td>Asking your partners STI status:</td>
<td>18 30%</td>
<td>29 48%</td>
<td>13 22%</td>
</tr>
<tr>
<td>Drinking Alcohol:</td>
<td>7 12%</td>
<td>24 40%</td>
<td>29 48%</td>
</tr>
<tr>
<td>Learning about Sexual health:</td>
<td>28 47%</td>
<td>18 30%</td>
<td>13 22%</td>
</tr>
<tr>
<td>Having strong relationships:</td>
<td>22 37%</td>
<td>29 48%</td>
<td>8 13%</td>
</tr>
<tr>
<td>Having multiple sex partners:</td>
<td>6 10%</td>
<td>20 33%</td>
<td>34 57%</td>
</tr>
<tr>
<td>Using dirty needles for drugs:</td>
<td>11 18%</td>
<td>11 18%</td>
<td>38 63%</td>
</tr>
<tr>
<td>Having unprotected sex with a friend:</td>
<td>13 22%</td>
<td>16 27%</td>
<td>31 52%</td>
</tr>
<tr>
<td>Kissing/Hugging:</td>
<td>13 22%</td>
<td>34 57%</td>
<td>13 22%</td>
</tr>
<tr>
<td>Having oral sex:</td>
<td>9 15%</td>
<td>23 38%</td>
<td>28 47%</td>
</tr>
<tr>
<td>Abstaining from sex:</td>
<td>31 52%</td>
<td>24 40%</td>
<td>5 8%</td>
</tr>
<tr>
<td>Exchanging sex for money:</td>
<td>7 12%</td>
<td>13 22%</td>
<td>40 67%</td>
</tr>
</tbody>
</table>
I have little control over my sexual health: 16 Strongly Agree, 17 Agree, 14 Disagree, 13 Strongly Disagree (55% strongly or agree)
There is not much I can do to protect myself from STI’s: 16 Strongly Agree, 7 Agree, 20 Disagree, 15 Strongly Disagree (58% disagree or strongly)
I am concerned about my sexual health: 16 Strongly Agree, 23 Agree, 17 Disagree, 4 Strongly Disagree (65% are concerned about HIV)
My friends are concerned about their sexual health: 8 Strongly Agree, 30 Agree, 13 Disagree, 9 Strongly Disagree (50% agree that friends are concerned)
Compared to other people of my sex and age, I am more at risk for getting an STI: 10 Strongly Agree, 12 Agree, 23 Disagree, 15 Strongly Disagree
I know how to maintain my sexual health: 26 Strongly Agree, 26 Agree, 5 Disagree, 3 Strongly Disagree (87% strongly or agree that they know about HIV)
I can see when someone has an STI: 8 Strongly Agree, 11 Agree, 21 Disagree, 20 Strongly Disagree (69% disagree with seeing HIV)
I feel my actions are good for my health: 26 Strongly Agree, 23 Agree, 6 Disagree, 4 Strongly Disagree (82% agree with actions)
If I have safer sex, I can prevent infection: 26 Strongly Agree, 20 Agree, 6 Disagree, 7 Strongly Disagree (77% can control risk and prevent)
I know where to get information about sexual health: 23 Strongly Agree, 25 Agree, 8 Disagree, 3 Strongly Disagree (80% know where to get info)
I get most of my sexual health information from my family and friends: 26 More, 11 Equal, 23 Less (43%, 18%, 38%)
If my partner won’t have safe sex, I won’t have sex with them: 14 More, 16 Equal, 16 Disagree, 14 Strongly Disagree

Have an STI: 17 More, 20 Equal, 23 Less (28%, 33%, 38%)
Have sex before 18: 22 More, 18 Equal, 20 Less (37%, 30%, 33%)
Have multiple sex partners: 26 More, 11 Equal, 23 Less (43%, 18%, 38%)
Be victims of sexual abuse: 24 More, 15 Equal, 21 Less (40%, 25%, 35%)
Exchange sex for money, gifts, or food: 22 More, 11 Equal, 27 Less (37%, 18%, 45%)
Know their STI status: 25 More, 16 Equal, 18 Less (42%, 27%, 30%)

Being tested for an STI: 40 Interested, 15 Maybe, 5 Not Interested (67%, 25%, 8%)
Using a condom during sex: 32 Interested, 15 Maybe, 13 Not Interested (53%, 25%, 22%)
Having sex before marriage: 19 Interested, 12 Maybe, 29 Not Interested (32%, 20%, 48%)
Going to sex education classes: 34 Interested, 8 Maybe, 18 Not Interested (57%, 13%, 30%)
Becoming a peer educator of sex education classes: 33 Interested, 12 Maybe, 15 Not Interested (55%, 20%, 25%)
Appendix H

Screenshots from online-hosted curriculum designed, and created with the input of Deaf youth in Nairobi, Kenya and Providence, Rhode Island.

OVERVIEW

Deaf students are a marginalized group at risk for health disparities associated with low health literacy. Current methods of adapting health education material for hearing populations do not reach Deaf audiences with equal effectiveness. Video-curricula, by design, are more appealing and effective at conveying information to a primarily visual input population. Additionally, peer-to-peer curricula help to moderate awkwardness and facilitate more-open candid discussion.

What is SIGNS?

SIGNS is a collection of adapted health education videos and resources for Deaf students. SIGNS is a video-based peer-to-peer curriculum that follows the standards of the common core. The curriculum is divided into 8 lessons designed intentionally for flexibility in classroom implementation. The curriculum can easily be adapted for two-week, four-week or even ten-week modules. We’ve aimed at maximum flexibility in the design of this web-hosted curriculum. Time-increments attached to parts of a lesson are simply suggestions. This curriculum assumes a high level of trust: we think that individual teachers in the state are in the best position to know what will work in their classrooms. There is a supplementary safe space worksheet to help establish rapor. We hope this curriculum is usable and friendly, relevant and accommodating for the host of complexities that exist within the Deaf middle/high school classroom.
### LESSON 1

**Objectives:**
Students will be able to:
- Describe structure and functions of reproductive anatomy
- Discuss natural variation in anatomy
- Identify primary and accessory glands

**Activity:**
1. Have students trace their hands in colored marker, put all the hands up on the board
   - Do all the hands look the same?
   - Can you identify your hand?
   - What makes the hands look different?
   - Transition into the great wall of vagina/penis
   - Can anyone identify parts of these anatomical parts?
   - What makes vulva/penis look different?
   - For more talking points refer to Seeing the Body by Anne Fausto-Sterling

2. Introduce "normative" anatomy with humorous Buzzfeed videos.
   - Transition to scientific descriptions of models
   - Addressing common misconceptions from the videos
   - Follow up with interesting facts videos
   - For all interpreted videos check out the video portion of the site

**Discussion:**
I want to acknowledge that this section covers a limited range of anatomy and gender identities. I don’t want to limit the discussion of anatomy to just certain experiences of people who have the bodies I discuss here.

**Discussion Questions:**
- How have you learned about your anatomy before this class?
- How have doctors/medical professionals influenced the way you understand your anatomy or sexual health?
- What ideas/messages have you received about your anatomy from others or the media?