

Summit on Medical School Education in Sexual Health: Report of an Expert Consultation¹

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ABSTRACT

Introduction. Medical education in sexual health in the United States and Canada is lacking. Medical students and practicing physicians report being underprepared to adequately address their patients' sexual health needs. Recent studies have shown little instruction on sexual health in medical schools and little consensus around the type of material medical students should learn. To address and manage sexual health issues, medical students need improved education and training.

Aim. This meeting report aims to present findings from a summit on the current state of medical school education in sexual health and provides recommended strategies to better train physicians to address sexual health.

Methods. To catalyze improvements in sexual health education in medical schools, the summit brought together key U.S. and Canadian medical school educators, sexual health educators, and other experts. Attendees reviewed and discussed relevant data and potential recommendations in plenary sessions and then developed key recommendations in smaller breakout groups.

Results. Findings presented at the summit demonstrate that the United States and Canada have high rates of poor sexual health outcomes and that sexual health education in medical schools is variable and in some settings diminished. To address these issues, government, professional, and student organizations are working on efforts to promote sexual health. Several universities already have sexual health curricula in place. Evaluation mechanisms will be essential for developing and refining sexual health education.

Conclusions. To be effective, sexual health curricula need to be integrated longitudinally throughout medical training. Identifying faculty champions and supporting student efforts are strategies to increase sexual health education. Sexual health requires a multidisciplinary approach, and cross-sector interaction between various public and private entities can help facilitate change. Areas important to address include: core content and placement in the curriculum; interprofessional education and training for integrated care; evaluation mechanisms; faculty development and cooperative strategies. Initial recommendations were drafted for each. **Coleman E, Elders J, Satcher D, Shindel A, Parish S, Kenagy G, Bayer CR, Knudson G, Kingsberg S, Clayton A, Lunn MR, Goldsmith E, Tsai P, and Light A. Summit on medical school education in sexual health: Report of an expert consultation. J Sex Med 2013;10:924–938.**

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¹This meeting report was produced as an effort to convey the discussion and recommendations of the experts attending the meeting. Every reasonable effort was made to present this meeting report in an objective and fair way.

Introduction

A crisis exists in medical school education in sexual health. Recent studies indicate that efforts to educate medical students in sexual health may have decreased in the last decade. In 1997, an extensive study on U.S. and Canadian schools showed that 92% of these schools offered core-curricular material on sexuality, which averaged 11 hours in U.S. schools and 18 hours in Canadian schools [1]. However, a 2003 study of 101 U.S. medical schools found that most medical schools provided only 3–10 hours of instruction. Human sexuality courses were offered in only 31 schools and required by 26 of the schools that responded [2]. Most schools did not provide clinical training programs in sexual health or continuing medical education. Of the sexual health curricula that do exist, there is little consensus about the content and skills students should master [3,4]. Existing curricula also tend to be more heavily focused on disease and dysfunction rather than healthy sexual functioning and well-being [5].

Recently, there has been increasing interest in more training in sexual diversity, including lesbian, gay, bisexual, transgender, and intersex (LGBTI) health [6]. However, education in this area is also lacking. A 2011 study reported a median of 5 hours dedicated to LGBT-related content in medical schools, and the material that was covered varied widely [7]. Many deans of medical education expressed dissatisfaction with their school's coverage of LGBT-related topics and were interested in increasing curricular content and faculty with LGBT expertise.

Moreover, general trends in medical school education have the potential to push out the sexual health education that does exist. Shifts toward fundamental coursework with more integrated and longitudinal learning, improved evaluation mechanisms, faculty development, institutional and faculty leadership, and more time spent outside the classroom can leave no room for existing sexual health components.

This meeting report reviews findings from a summit on the current state of medical school education in sexual health and provides recommendations for improvement. The summit was held on December 3–4, 2012 and was organized and hosted by the Program in Human Sexuality, Department of Family Medicine and Community Health, Medical School, University of Minnesota. It brought together key U.S. and Canadian medical school educators, sexual health educators,

and interested parties at the national level (Centers for Disease Control and Prevention [CDC], American Medical Association [AMA], Association of American Medical Colleges [AAMC]) to discuss ways to revitalize sexual health education and build a model for moving forward. During the summit, participants assembled to examine the problem, discuss challenges and opportunities, share lessons learned and make recommendations, including laying the groundwork for a comprehensive and integrated sexual health curriculum for use across U.S. and Canadian medical schools and beyond.

The meeting concluded with the drafting of guiding principles and short and long-term recommendations for improving medical education in sexual health in the coming years. This report summarizes critical issues raised during the summit and presents suggested strategies to catalyze efforts in the United States and Canada to better train our physicians to address sexual health.

Call to Action: The Importance of Training Physicians in Sexual Health (David Satcher)

The United States and Canada face significant challenges related to sexual health. In the United States, more than 19 million sexually transmitted infections (STIs) occur annually, almost half of which are among young people ages 15–24 [8]. In Canada, STI rates have been steadily increasing since 1997, particularly among young adults [9]. More than 1 million people are living with HIV/AIDS in the United States and HIV disproportionately affects sexual minorities, African Americans, and Hispanics [10,11]. The United States has one of the highest teen birth rates of industrialized nations and nearly half of all pregnancies in the United States are unintended [12,13]. Sexual violence and victimization affect over 13 million people in the United States each year [14]. Available data suggest one half of Canadian women will experience sexual or physical violence in their lifetime [9]. The above sexual health outcomes cost the United States more than \$40 billion annually [15–18]. Costs are also high in Canada. As of 2009, new HIV infections alone, including lifetime healthcare coverage, will cost an estimated \$768.1 million in Canada [19].

Now is the time for these nations to respond to challenges in sexual health. Many leaders and the public in general appear to be supporting equal rights for LGBT persons. In the last 15 years,

important policy and government documents have increasingly recognized sexual health as a national priority. These include:

- (1997) Institute of Medicine Report. *The Epidemic: Confronting Sexually Transmitted Diseases* [20];
- (2001) The Surgeon General's Call to Action to Promote Sexual Health and Responsible Sexual Behavior [21];
- (2010) National HIV/AIDS Strategy [22];
- (2011) The National Prevention Strategy [23]; and
- (2011) Healthy People 2020 [24].

The National Prevention Strategy is particularly compelling in its vision of “working together to improve the health and quality of life for individuals, families, and communities by moving the nation from a focus on sickness and disease to one based on prevention and wellness” [23,25]. For people to participate in healthy behaviors, it is important for individuals to understand how to appreciate their sexuality and the sexuality of other people. Ideally, sexually healthy individuals integrate sexuality into their lives, at every stage of life.

The 2001 *Surgeon General's Call to Action to Promote Sexual Health and Responsible Sexual Behavior* reinforced the need to work together, respect differences, and find common ground. Today, sexual health leaders must continue to work as members of a team and to develop teams around them. Training physicians to adequately address sexual health is essential to improving sexual health outcomes and to developing more leaders in sexual health.

To provide optimal sexual health care, providers need to have honest, respectful, confidential conversations with patients. Effective communication skills such as active listening, open-ended questions, normalizing statements, and appropriate and sensitive language can encourage behavior change. Moreover, health professionals may need to be aware of the potential disconnect between their conscious intentions to provide good care and implicit bias that patients can sense. In particular, sexual health curricula should include strategies and exercises to increase provider comfort discussing sexuality with patients. Finally, physicians and other health professionals have a role in training the next generation of providers in respectful and comprehensive assessment of sexual health in patients.

Training health professionals to address complex sexual health issues requires several con-

siderations. Young providers may feel uncomfortable discussing sexual health with older patients and may need specific training. Providers need to learn how to discern health risk factors that tend to be greater for nonheterosexual patients. Medical students are often taught how to take sexual histories, but this knowledge is lost during clinical rotations and residency when time constraints or other physicians discourage sexual history taking; thus, sexual health training should extend into residency and beyond. Programs to develop and refine practicing physicians' sexual health skills are also needed [26].

Moreover, efforts to promote sexual health and train health professionals could extend beyond a focus on negative outcomes such as sexually transmitted infections (STIs) and pregnancy. The promotion of sexual function, satisfaction and alleviation of sexual dysfunction, including sexual pain, low libido, orgasm dysfunction, and erectile dysfunction, are also important. More education is needed on the meaning of sexual health for students and the public. Currently, many broad, holistic definitions of sexual health that extend beyond disease exist [27], yet these definitions are often not operationalized in practice. Often, opportunities for physicians to discuss sexual health (e.g., related to cardiovascular disease, medication adherence) are missed. The powerful role of social determinants and syndemics—overlapping health issues—on sexual health should also be acknowledged. Increased attention to the connection between sexuality and aging in practice would also be useful. STD/HIV rates are increasing at an alarming rate among older Americans and educational efforts on safer sex for older people are generally lacking.

Current Efforts to Promote Sexual Health and Training of Future Providers at the CDC and Beyond (John Douglas)

To continue the emphasis of the *Surgeon General's Call to Action to Promote Sexual Health and Responsible Sexual Behavior* on encouraging national dialogue and to support *The National Prevention Strategy's* vision to move from a disease-based focus to one based on prevention and wellness, the CDC is taking steps to complement core public health prevention efforts with a health promotion framework that addresses the broader issue of sexual health. A sexual health framework can:

- address sexual health as an intrinsic element of overall health;

- take a comprehensive approach to prevention that recognizes the connections between various health problems;
- emphasize wellness;
- focus on positive and respectful relationships; and
- contextualize issues at the broader community and societal levels that impact the health of individuals.

Use of such a framework for public health action has the potential to enhance core disease control and prevention efforts by engaging new and diverse partners; normalizing mature and thoughtful discussion about sexual health; reducing stigma, fear, and discrimination; and enhancing efficiency and effectiveness of prevention messages and services.

Examples of recent activities by CDC include:

- a consultation and meeting report on *A Public Health Approach for Advancing Sexual Health in the United States* [28];
- support for the newly initiated National Coalition for Sexual Health, which aims to bring together key organizations from a variety of sectors to identify strategies to improve the sexual health of adolescents, men who have sex with men, and the general population [29];
- partnership in the “Get Yourself Tested/Talking” campaign, a social marketing campaign that promotes STD testing and dialogue based on the MTV “It’s Your Sex Life” platform [30];
- support of the National Coalition of STD Directors in a recent survey assessing sexual health efforts by state health agencies, leading to an upcoming summit on “Advancing Sexual Health through State Sexual Health Plans”; and
- health communication research to assess frameworks and messages that resonate across a spectrum of stakeholders [31].

Because of their credibility about health issues and their role in providing clinical preventive services, healthcare providers are a critical partner to public health agencies such as CDC in addressing sexual health. There is substantial evidence of patient interest in discussing matters related to sexual health. However, providers’ ability to address sexual health is often limited by lack of comfort, lack of training, and perceived and actual time constraints [26]. Some providers find it easier to simply order tests rather than engage in discussions about sexual health.

The burden of public health outcomes related to sexual behavior make this an important time to

continue efforts to address sexual health in a variety of sectors and levels of society. The public health sector, healthcare delivery systems, departments of education, community and faith-based organizations, the media, the private sector, and families all work to promote sexual health. Enhancing national dialogue on sexual health and achieving a wellness-focused approach to sexual health will take long-term vision and contributions by all of us.

Current State of Sexual Health Education in Medical Schools (Alan Shindel and Sharon Parish)

The current state of sexual health education in medical schools shows much room for improvement. Studies indicate tremendous heterogeneity in curricula, little classroom time spent on sexual health topics, and substantial dissatisfaction among medical students regarding their sexual health education [2–4,32]. Barriers to sexual health education include: time constraints, shortages in funding and faculty, a focus on disease models, and diverse sexual beliefs among students, faculty, and patients [3,33–37].

Certain sexual health topics receive particularly inadequate coverage. For example, areas related to older age groups (e.g., sexual dysfunction, sexual pleasure, and safe sex), youth (e.g., puberty and decision making) and disability (e.g., pleasure, consent, and facilitation of sexual activity, if necessary) are seldom covered in most Canadian and U.S. medical schools. Contraception education is near universal but the full gamut of contraceptive options is not routinely discussed. Abortion education is not provided to students in 17% of medical schools. Coverage of LGBTI-specific health issues has increased in recent years, but could still be improved. Education in sexual diversity (e.g., diverse identities, orientations, practices) is also lacking.

Training in sexual diversity may be especially important. In their careers, providers will care for patients whose sexual mores or practices differ from their own. It is not the purpose of sexual health education to change a student’s personal beliefs or morals. However, professionalism mandates that students respect patients’ decisions and provide factual information, not belief-based judgments. Sexual health education should help students do this by teaching them to recognize how their own values affect their practice.

Existing principles can help guide sexual health education in medical schools. Overall, the

complexity of human sexuality across the life span requires a multidisciplinary approach [2]. Sexual health education must be concise and high impact as time in the curricular calendar is limited [38]. In 2010, the International Society for Sexual Medicine education committee met to develop global standards on sexual health education in medical schools. They created objectives that include the following attitudes, knowledge, and skills for health professionals to acquire:

- Awareness of personal issues on sexuality
- Knowledge of sexual anatomy and physiology
- Understanding of reproduction and STIs
- Ability to address differences in sexual practices
- Ability to identify, diagnose, manage, and refer patients with sexual problems

Within a multidisciplinary approach to sexual health education, some topics may lend themselves more to certain forms of teaching:

- Information on anatomy, physiology, and pharmacology may be efficiently conveyed in *didactic format*.
- More controversial topics are likely better addressed in *smaller group formats* that permit interaction and allow students to recognize their biases.
- *Panel discussions* of multidisciplinary faculty and/or nonmedical professionals facilitate teaching and debate on controversial issues related to sexuality such as abortion, pornography, alternative relationships, and gender identity.
- *Standardized patients (SP)* give students the opportunity to gain skills in history taking and genital examinations. SPs have been associated with better clinical performance, less anxiety, positive learner evaluations, and increased screening behaviors by providers.
- Sexual health courses can also be taught as *an elective* part of preclinical training, clinical rotations, or extracurricular courses.

Faculty willingness and engagement is critical for each approach, particularly in smaller group formats and with SPs. A lack of knowledge is a frequent reason for educators' omission of sexual health topics [39]; therefore, faculty development and institutional support constitute a central part of expanding sexual health education. Faculty need to be motivated and advised about what to teach, (e.g., What is the intersection between sexual orientation, gender identity, and sexual health?). Testing faculty on sexual health knowledge or

Grand Rounds presentations can reinforce their development. Multidisciplinary faculty teams may enhance the quality of sexual education and give students a greater breadth of experience and knowledge.

Sexual health education should be incorporated across courses. Sexuality affects nearly every system of the body. Thus, faculty can incorporate sexual health into various lectures to normalize such discussions and allow medical schools to utilize existing courses. In many schools, teaching related to HIV/AIDS is now integrated throughout courses.

Several experts at the summit felt that sexual health education should not be an elective; rather, it should be mandatory and part of examinations at every medical school. Their belief was that medical students see elective courses as less important. Other experts stressed the importance of more structural changes, such as including a sexual health curriculum block; sexual health material on U.S. Medical Licensing Examination (USMLE) exams; or making sexual health part of the Liaison Committee on Medical Education (LCME) certification process. If this were done, the amount of sexual health material included might vary by medical specialty. It was noted that the AMA and AAMC have served on ad hoc committees in the past that can influence the LCME process.

Perspectives from AMA and AAMC (Gretchen Kenagy and Robert Englander)

The AMA supports activities related to sexual health education in medical schools. To improve the sexual history curriculum in medical schools, the AMA:

1. Encourages all medical schools to train medical students to be able to take a thorough and non-judgmental sexual history in a manner that is sensitive to the personal attitudes and behaviors of patients in order to decrease anxiety and personal difficulty with sexual aspects of health care; and
2. Supports the creation of a national public service announcement that encourages patients to discuss concerns related to sexual health with their physician and reinforces its commitment to helping patients maintain sexual health and well-being.

The AMA promotes activities to raise awareness and provide education related to LGBTI education provided in medical schools. This includes

formation of the AMA Advisory Committee on Gay, Lesbian, Bisexual, and Transgender Issues, which gives advice and counsels the AMA board and staff on matters affecting LGBTI physicians, medical students, and patients [40]. The AMA currently has a grant that funded 20 Grand Rounds on LGBTI health to residents and fellows. These presentations could easily be targeted to medical students. In 2013, the AMA is administering a grant to accelerate change in medical education to better meet the evolving needs of practicing physicians [41]. The development of new sexual health curricula could possibly be funded through this grant.

The AAMC provided a competency-based framework for thinking about educational and curricular needs in sexual health. Competency-based education starts by defining the desired outcomes, which then drive the curriculum. With a broadening acceptance of the Accreditation Council for Graduate Medical Education's competency framework in the United States, there is increasing consensus around what the outcomes are that comprise the "Good Doctor" [42]. The definition has greatly expanded from a sole focus on Medical Knowledge and Patient Care skills, to now also include striving for mastery in Professionalism; Interpersonal and Communication Skills; Practice-based Learning and Improvement; and Systems-based Practice.

Furthermore, the Interprofessional Education Collaboration has elucidated four competencies in the domain of Interprofessional Collaboration and a recently completed draft of the Pediatric Milestones has delineated a number of competencies that have resonated with the medical education community in the domain of Personal and Professional Development [43]. While other frameworks exist, such as CanMEDS [44] and Scottish Doctor [45], there is great consistency and overlap between the differing frameworks. Using this framework, one can distinguish between those competencies that are necessary for providing excellent sexual health care, but are not specific to this area, and those that may be specific to the area and thus require a separate curriculum. The AAMC is positioned to support these efforts through its peer-reviewed curriculum warehouse, MedEdPORTAL. The AAMC recently completed an effort to delineate the competencies in LGBT health and is currently seeking curricular submissions to MedEdPORTAL that address those competencies.

Summit participants discussed ways to encourage more interest in sexual health, such as

making the connection between sexuality, quality of life, and measured health outcomes. Training on how to use electronic medical records to obtain information on sexual orientation and gender identity could facilitate sexual health education. Others noted that using medical students' personal interest in their own sexuality could garner interest in sexual health more broadly. The potential value of letters written to medical school deans was also discussed. These letters would outline the evidence showing a need for sexual health education in order to increase interest and investment in sexual health at medical schools.

Examples of Curriculum in Sexual Health

(Carey Roth Bayer, Eli Coleman, Melissa Pavek, Gail Knudson, Sheryl Kingsberg, Anita Clayton, Perry Tsai, and Alexis Light)

Examples of integrated sexual health education do exist in a few medical schools. The Morehouse School of Medicine has created perhaps the most extensive and comprehensive curriculum in sexual health [30]. It consists of 18 modules with content distributed across all 4 years of undergraduate medical education. The University of Minnesota, University of British Columbia, University of Virginia, and Case Western Reserve University also have integrated models of mandatory and elective sexual health education that utilize materials such as the Association of Reproductive Health Professionals online resources. The American Medical Student Association (AMSA) has an innovative sexual health curriculum, modified from the Morehouse curriculum, that is used in its Sexual Health Scholars Program to train medical students in sexual health [46]. Rather than creating entirely new sexual health education programs, institutions without organized sexual health curricula can consider these examples as starting points, learning from the successes and failures of their implementation.

LGBTI Health Curriculum (Mitchell Lunn and Elizabeth Goldsmith)

LGBTI health is extremely relevant for health professionals. Currently, LGBT people represent 3–4% of U.S. population [47], and LGBT couples reside in 99% of counties in the United States [48]. Various developments have occurred in support of LGBT health in recent years:

- The Institute of Medicine (IOM) report on LGBT health included recommendations on data collection, reporting, and research [49].
- Health and Human Services Secretary Kathleen Sebelius announced actions to improve LGBT health [50].
- Healthy People 2020 included improving LGBT health as a specific goal [24].
- JAMA study reported limited and superficial LGBT health education in medical schools [7].

Yet discrimination still persists. In medical schools, up to 17% of LGBTI students describe learning environments as hostile [51]. Doctors who graduated from medical school more recently are less homophobic than their predecessors, yet almost 19% of doctors still feel uncomfortable providing care to gay and lesbian patients [52]. Up to 33% of transgender people report being treated differently and 90% feel there are not enough physicians trained to treat them [53]. This discrimination goes both ways. A recent randomized telephone survey in the United States found that 30% of patients would change providers if they found out their provider was LGBTI or even if there was an LGBTI employee at the practice [54].

In 2009–2010, a survey on the current state of medical education on caring for LGBTI people was conducted among deans of 150 medical education institutions [7]. Further research includes preliminary results from a survey of 8,551 students across 174 medical schools, as well as four focus group sessions [54]. Findings showed that the most common topics covered were sexual orientation, HIV, gender identity, STIs, and safer sex. Some students' misconceptions about LGBTI health included what can be described as false complexity (e.g., transitioning would make it very difficult to provide primary care), false simplicity (e.g., stating that every patient is just a patient or that patients should be seen as the same), and false negativity (emphasis on diseases and negative outcomes, which could perpetuate stigma).

When medical students work with LGBTI patients, it can help combat misconceptions and generate more comfort in providing care. In clinical settings, it can be challenging to ensure all students have sufficient interactions with known LGBTI patients, and classroom-based clinical case discussions, SPs, Objective Structured Clinical Examinations (OSCEs), and other simulations can be useful. More partnerships with local providers,

Table 1 Key steps in support of LGBTI education

Institution	Faculty	Students
• Mission statement	• Faculty development	• Recruit/retain committed students
• Commitment to diversity	• Recruit/retain committed faculty	• Mentorship
• Community partnerships	• Mentorship	• Coursework/research
• Provide in-kind support	• Research funding	
• Measure/report outcomes	• Promotion pathways	

LGBTI-friendly clinics, and federally qualified health centers could be utilized.

Existing resources like the LGBTI Health Stories Project (<http://med.stanford.edu/lgbt/projects/stories.html>) can be integrated into curricula to build comfort and empathy with LGBTI patients. Many medical schools, the Fenway Institute, AAMC LGBTI Patient Care Project Advisory Committee, mededportal.org, and Gay & Lesbian Medical Association all are excellent resources. The work of LGBTI student groups, gay–straight medical alliances, LGBTI medical research groups, and human rights campaign's Healthcare Equality Index 2012 (<http://www.hrc.org/hei>) is also useful.

Improving medical education in LGBTI health involves improving the educational environment. Medicine cannot expect to provide a welcoming environment for LGBTI patients without providing the same for people within medicine itself [55]. To instigate change, key steps in support of LGBTI education need to be considered at the institutional level and among faculty and students; examples of these are listed in Table 1.

Summit attendees discussed ways to promote both LGBTI health and sexual health. Ideally, the two should be pushed for and integrated, rather than set up competitively. Some participants worried that extensive focus on LGBTI minorities could encourage “othering” and the dissection of different identities. One attendee stressed the need to focus on LGBTI sexual function, not just dysfunction and disease. Overall, a need exists to help students see similarities among patients, not just differences. One approach would be to place LGBTI health under a bigger umbrella of cultural competency, bias, access, or health disparities. Specific LGBTI health issues related to sexual health or function could then be covered in the sexual health curriculum.

Evaluation Mechanisms (Knowledge, Skills [OSCE], Step Exams, USMLE) (Anita Clayton)

Evaluation mechanisms are essential for developing and refining sexual health education. Evaluations should be summative and formative and could test the following outcomes:

- learning experiences, lectures, courses, curricular content, and faculty;
- students' sexual health competency throughout medical school and residency or on medical licensing (USMLE) exams; and
- schools' sexual health education capabilities as part of their accreditation.

Efforts to expand sexual health education may be most effective if there is a consensus on what this education aims to achieve. In moving forward, a unified voice on the content of a sexual health curriculum is needed, i.e., to make changes on USMLE exams, the group needs to know what changes to ask for. The majority of research suggests that students need improvement in knowledge, attitudes, and clinical skills related to sexual health. Attendees from the summit discussed the possibility of forming a coalition with a formalized structure to write an article. It may be useful to identify institutional best practices and to try to spark a top-down approach. An outcome-driven approach will also be effective in medical schools. As educational institutions, medical schools respond well to what it is they have to teach their students.

To continue momentum from the summit, a compilation of curricular materials in centralized, open access locations will facilitate sharing of information such as draft test questions and SP scenarios. Likewise, curricular content tracking could be useful as sexual health education is changing in order to monitor and integrate regional differences. The Sex Knowledge and Attitude Test (SKAT) [56] should be revised to provide an updated means of evaluation.

Principles and Recommendations (Work Groups)

Sexual Health Content and Placement in the Curriculum

To be most effective, sexual health education should be integrated longitudinally throughout 4 years of medical school to increase students' exposure and normalize the topic. Medical educators in different schools with various teaching methodologies should be encouraged to create a

curriculum based on their school's resources and curricular structure.

Principles for sexual health content and placement in the curriculum:

- Introduce sexual health education early and often.
- Integrate sexual health curricula longitudinally throughout four years of medical school.
- Develop affective, factual, and skills-based sexual health curricula.

Recommendations for placing this content:

- Implement a Sexual Health Block with longitudinal integration throughout all four years of medical school curriculum.
- Adapt curricula to include current technology for individualized implementation at schools.
- Use varied teaching methods such as a combination of a didactic model, problem-based learning, systems-based learning, and online course delivery.
- Encourage medical educators to create a curriculum or adapt those developed by others tailored to the school's overall curricular design.

Sexual health content should be integrated in multiple content areas. For example, courses on embryology and brain development could discuss gender identity formation associated with embryological development. Discussions of sexuality are relevant to aging, birth control, infertility, pregnancy, and postpartum sexuality. Training in more specific sexual dysfunction could occur in OB/GYN, Urology, Primary Care, or Psychiatry rotations. Faculty should stress the importance of sexual health for patient satisfaction and providing patient-centered care. Courses could emphasize the need for students to explore their own sexual health values and attitudes in order to develop comfort, empathy, and respect, and to interact with peers, patients, and people different from themselves.

As next steps, the work group suggested that the AMSA curriculum could be used as a starting point to inform the competencies students should gain.

- values, models, and language
- sexual anatomy and physiology
- gender and sexual history taking
- sexuality, disability, and illness
- body image and sexual self-esteem
- common sexual concerns/treatments
- sex toys and tools
- LGBTI health

- relationships and love
- sexuality across the life span
- sexual health counseling
- spectrum of sexual behavior
- sexuality and religion/spirituality
- sexual abuse and intimate partner violence

It was noted that this curriculum did not include more standard sexual health topics such as STIs and contraception. The work group responded that this curriculum was developed to address the topics currently missing from curricula. It was proposed that the above curricula be refined to include other sexual health issues such as STIs, abortion, contraception, sexuality and pregnancy, sexuality and infertility. The work group proposed including sexual health for LGBTI populations within the sexual health curriculum and stressed the need for more clarification of the relationship between sexual health and LGBTI health. Finally, the group strongly recommended for each school to identify a champion who receives adequate compensation, to ensure that this curriculum is implemented. Administrative support would also be required.

Interprofessional Education and Training for Integrated Care

Working together should be the norm and not the exception. Sexual health is an important area for many types of healthcare providers apart from physicians, including nurses, physician assistants, social workers, family therapists, counselors, sex therapists, educators, faith-based counselors/spiritual psychologists, and physical therapists. These professionals also need sexual health education, particularly in an age where the role of teams—in patient-centered medical homes and elsewhere—is increasingly important. Communication skills such as active listening and nonjudgmental care are valuable in all disciplines.

Principles for facilitating interprofessional sexual health education and training:

- Use a multidisciplinary bio-psycho-social team approach.
- Recognize that many disciplines/experts have interest in sexual health and need sexual health education.
- Understand that sexual health outcomes and care do not occur in a silo.

Recommendations for moving forward:

- Focus on educating multiple disciplines *at the same time*.

- Create teams of interprofessional faculty to teach sexual health in classrooms, communities, and healthcare settings, as such collaboration will be important for practicing health professionals.
- Compile a resource list of connections and recognized specialties (e.g., pelvic floor physical therapists) already good at discussing sexual health.
- Garner “buy-in” from doctors, students, and other disciplines for these partnerships to work.

As next steps, it will be useful to explore and build from existing sexual health education in related disciplines. Professional development (for professionals) and activities such as an “Integrated Sexual Health Day” (for students) can demonstrate how sexual health teams collaborate. However, a one-time observation is not ideal. It would be better if schools could create more long-term, sustainable sexual health opportunities for students based on the school’s capabilities, partnerships, and resources. Yet it will also be important to train clinicians to provide basic sexual health services in areas where referral opportunities are scarce.

Evaluation Mechanisms of Sexual Health Education

Evaluation mechanisms incorporating multiple methods of measurement will help medical schools understand how to best teach sexual health. Where possible, schools should use evidence-based tools and measure real-world outcomes, such as patient health outcomes or satisfaction.

Principles to guide evaluation mechanisms:

- Employ multiple measurement methods, appropriate to knowledge, skills, or attitudes.
- Standardize and validate instruments, generalizable across multiple settings.
- Use evidence-based psychometric tools (with preference for applicability to real-world outcomes [e.g., Change in patient outcomes; behavioral change in learner] with less reliance on learner self-assessed competence, confidence, and satisfaction).

Recommendations for improving evaluation:

- Revise existing SKAT.
- Develop a question bank for knowledge assessment and additional attitude measurement tools as needed.
- Develop OSCEs and SP cases and checklists to assess behavior and skills.

- Use sexuality/sexual health focused Mini-CEX (clinical evaluation exercises) and similar tools with live patients.
- Create a process for storing, maintaining, and disseminating these tools.
- Identify time, personnel (faculty), and financial barriers to adequate evaluation.

Some of these tasks, such as updating the SKAT, could be done by a graduate student. Yet ways to realistically evaluate in a resource-poor environment or obtain evaluation resources should also be explored. Staff and time are essential to identify new evaluation questions and tools, which may need to be developed, piloted, or aggregated from different places.

As next steps, the work group recommended first identifying the sexual health content that comprises an effective curriculum. This content can then be used to develop appropriate evaluation tools and synchronize these tools with desired outcomes. Possible homes for evaluation tools include:

- MedEd portal
- AAMC website
- DREAM database for evaluation and assessment measurements

Faculty Development

Faculty development constitutes a central part of sexual health education. Much like students, faculty members need content and curricula to build their skills and comfort in teaching students about sexual health.

Principles key to faculty development in sexual health:

- Work to prepare faculty. (Content for faculty is similar to students. Its purpose is to normalize sexuality; create healthy environments/safe spaces; decrease stigma.)
- Recognize the curriculum development process and need for evaluation mechanisms.
- Use existing opportunities (faculty presentations/development) and resources (WebEx); make relevant connections through Course Directors.
- Recognize faculty's busy schedules—need efficient, short modules.
- Buy packages of webinars, standardized packages, national group vetted agenda (i.e., what is important in sexual health—international experts). Give CME credits.

- Support student work with clinical faculty (bridge the disconnect between preclinical vs. clinical years).
- Consider partnering with organizations.

Furthermore, certain tensions around faculty education in sexual health may require further exploration. For example, there is a difference between increasing exposure and awareness among faculty vs. a more intensive training approach. Different strategies may be needed to form groups of faculty champions vs. raising awareness for all faculty members.

Recommendations for faculty development in the short and long term:

- Short term
 - Create short articles or fact sheets to share with faculty frequently.
 - Develop proposals and presentations for AAMC Faculty Development/Group on Educational Affairs.
 - Put resources in shared spaced (e.g., MedEDPortal).
 - Identify “who is doing what” (e.g., speakers bureau).
 - Pair and create teams of faculty across disciplines.
- Long term
 - Develop “Guidelines/Best Practices.”
 - Use technology to develop content.
 - Facilitate multimodal and multiple exposures to sexual health for faculty.
 - Create a culture change to make sexual health valued.
 - Build leadership and support.

The work group recommended that summit attendees and other interested parties start making changes at their schools. Champions can talk with the leadership, making the case for why sexual health is important and using the evidence base, to gain support at high levels. Champions at one medical school could develop partnerships elsewhere.

Many of these recommendations rely greatly on individual institutions. Many schools may not have the resources to implement sexual health development for faculty. Thus, some sort of road map for content and faculty development resources would be helpful. Often it is one person or a few people that facilitate change. Given that some medical schools report teaching more sexual health, contacting these schools could be a starting point. Perhaps AMSA could share the contacts of faculty interested in sexual health or current sexual

health-interested faculty could develop a list of champions and make specific recommendations about where to start. One place to start might be health disparities proponents, as all doctors need to be comfortable talking to different types of people.

Cooperative Strategies

Strategies to facilitate cooperation and collaboration across sectors are essential to sexual health education. Participants strongly endorsed an initiative to commission an IOM report, which would also describe the need to address sexual health education for healthcare providers. Such a report could be a collaborative project between the National Institutes of Health, Health Resources and Services Administration, CDC, private industry, and foundations.

Principles to facilitate cooperative strategies:

- Facilitate cross-sectoral interaction (public-private, academic-nonacademic, health-nonhealth [religious]).
- Maintain postconference momentum via a leadership group.
- Consolidate existing curricula to enhance efficiency.
- Consider alliances with other professions (nursing, social workers, physician assistants).

Recommendations were made to facilitate cooperative strategies:

- Form steering group and produce an IOM report on sexual health.
- Create a professional society to address sexual health more broadly (to complement traditional, disease-based approaches with more holistic approaches to health).
- Develop a call for action in medical student training through cross-organizational efforts:
 - Leadership (AMA, AAMC) and participation (American College of Physicians, American Academy of Pediatrics, American Academy of Family Physicians, American Congress of Obstetricians & Gynecologists).
 - Provide a roadmap for deans of education.
- Promote CDC concept of sexual health promotion in health provider education.
- Link educational efforts with residency and continuing medical education training.
 - Examine current professional society competency statements and collaborate with professional organizations (Accreditation Council for Graduate Medical Education).

- Acknowledge the role of private industry in enhancing consumer interest sexual health and demand for providers.
- Consider ways to utilize professional organizations and commercial entities.
- Efforts to facilitate cooperative strategies should occur simultaneously with the creation of a curriculum.

Summit participants discussed strategies for creating a cross-organizational effort in the short term. CDC efforts in sexual health should emphasize the importance of provider education and training in sexual health. A letter to deans of U.S. medical schools outlining the data and need for strategies to improve inclusion of sexual health training in undergraduate curricula should be developed to share with medical school deans across the United States and Canada. A committee should explore the possibility of an IOM report.

These efforts should occur simultaneously with the creation of a curriculum. Currently, the Council on Resident Education in Obstetrics and Gynecology is beginning work on competencies for sexual health issues in OB/GYN that could be of use in curricula development. Likewise, the Society for the Scientific Study of Sexuality and councils for sex therapists also have curricular resources that could be useful.

Conclusion

The authors were presenters at the meeting and this meeting report reflects their presentations. The discussion and recommendations were developed by all of the meeting participants who are listed in Table 2.

This summit brought together passionate people dedicated to putting sexual health education in medical schools. To succeed, a national sexual health curriculum will require strong principles to guide its development. It will be critical to meet medical schools where they are and to be patient and flexible because the curriculum will always be changing, and much change will be incremental. Short-term goals that emphasize realistic accomplishments can facilitate future changes.

Much can be learned from the successes and failures of existing sexual health curricula. One phenomenon that can affect sexual health education is the hidden curriculum. Medical school is a multidimensional learning environment with three spheres of influence [57]:

Table 2 List of summit participants and staff

Participants
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Lynn Barclay, American Sexual Health Association
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Jeffrey G. Chipman, MD, University of Minnesota Medical School
Brad Clarke, University of Minnesota Medical School
Anita H. Clayton, MD, University of Virginia
Eli Coleman, PhD, University of Minnesota
Melanie Davis, PhD, CSE Honest Exchange LLC, Sexuality and Aging Consortium at Widener University
John Douglas, MD, Centers for Disease Control and Prevention
Martin Downs, MPH, Variance LLC
Joycelyn Elders, MD, 15th US Surgeon General, University of Arkansas Medical School
Robert Englander, MD, MPH, Association of American Medical Colleges
Jamie Feldman, MD, PhD, University of Minnesota Medical School
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- the formal, stated, endorsed curriculum
- the unscripted interpersonal teaching and learning (the “informal curriculum”)
- the set of influences from organizational structure and culture (the “hidden curriculum”).

In the hidden curriculum, institutional policies, evaluation activities, resource allocation, and institutional “slang” and “buy-in” can greatly affect efforts to change the curriculum. Thus, there is a great need for champions who are well connected

and knowledgeable about medical school politics. Schools may want to assess their own “hidden curricula” to implement changes realistically.

Several experts at the summit described the success of grassroots student movements to increase sexual health education. Often, when students are exposed to curricular content in sexual health, they want more of it. Likewise, LGBTI health remains a successful student-driven concept in many schools. Yet the turnover of student advocates for sexual health is challenging. Many students are so focused on exams and residency placement in the later years of medical school that advocacy for inclusion of topics such as sexual health is viewed as less important. More efforts to generate sexual health scholars, such as the AMSA Sexual Health Scholars Program are needed.

Structural changes at schools can block or slow sexual health education efforts. For example, changes of dean and recent regulations on time allotted in class have halted progress in sexuality education. One expert noted that areas of controversy such as abortion or the effect of oral contraceptives on sexual function can serve as barriers to learning when faculty avoid these topics. In order to be sustainable, sexual health education requires ongoing commitment from faculty, students, administrators, institutions, and licensing boards.

In conclusion, there are major public health problems in the United States and Canada related to sexual behavior. Repeated studies show that medical students and health professionals do not feel comfortable or able to adequately address patients' sexual health needs. To build a healthier society, part of the solution is training and educating physicians in sexual health. Although education cannot address every social or structural determinant of sexual health, it is a step in the right direction. Improving sexual health outcomes at the population level may not be easy or quick. But it will be beneficial for lives and for national costs in the long run.

The training of medical students is an important component of this broader effort. It is time to train the young doctors in our society and the practicing health professionals to do things differently. National standards for sexual health education should be put in place in every medical school in the United States and Canada.

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