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The National Academies of
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Statement of Task

1. Examine the epidemiological dimensions of STIs in the United States;

2. Examine the economic burden associated with STIs;

3. Review current public health strategies and programs;

4. Identify barriers in the healthcare system and insurance coverage; and

Provide direction for future public health programs, policy, and research in STI prevention and control.
Committee Process

- 8 meetings
  - Information-gathering
    - Input from a broad range of invited stakeholders
    - Two lived-experience panels
    - Open to the public
  - Deliberative

- Prepared 12-chapter report
  - External peer review by 14 expert reviewers, mirroring the committee’s own expertise (e.g., epidemiology, infectious diseases, public health, health policy, STI program management, health economics, behavioral and social sciences, communication, etc.)
Relevant Reports

- The Impact of Sexually Transmitted Diseases on the United States: Still Hidden, Getting Worse, Can Be Controlled
  - December 2018

- The STD Epidemic in America: The Frontline Struggle
  - November 2019

- pipeline report 2019
- November Strategic Plan

- Gonorrhea, Chlamydia, and Syphilis

- December 2020
Magnitude of the Problem

• 1 in 5 people in the United States had an STI in 2018 on any given day.

• Report case rates chlamydia, gonorrhea, and syphilis have been increasing over the last two decades.

• Marginalized groups have been disproportionally impacted due to many factors, such as poverty, health care access/availability, and racism/discrimination.
Magnitude of the Problem

• Long-term effects of STIs include infertility, miscarriage or newborn death, and increased risk of HIV infection.

• CDC estimated that incident STIs imposed more than $2 Billion in lifetime direct medical costs in the United States in 2018.

Source: Keller, 2020
40% decrease in purchasing power since 2003
Committee Approach

• Methodology
  – Comprehensive literature review
    • Drew evidence from high-quality systematic evaluation of science
  – Builds off of the 1997 report, *The Hidden Epidemic*

• Focused on pregnancy/in-utero through older adults/seniors

• Provide recommendations for practice, policy, and systems change
  – near and long-term
Conceptual Framework

These intersecting factors have an impact across all stages of the life span.
The Report in Brief:
12 chapters, 11 recommendations

Report recommendations organized under four action areas:

– Adopt a sexual health paradigm
– Broaden ownership and accountability
– Bolster existing systems and programs
– Embrace innovation and policy changes
Committee
Conclusions & Recommendations
Adopt a Sexual Health Paradigm
The Need to Shift to a New Paradigm

• The nation’s response to STIs since the beginning of the 20th century has mostly focused on individual risk factors and individual behavior.

• This approach has fueled stigma and shame, which have hindered prevention and control of STIs.

• The clinical focus in current STI control efforts is primarily on the harmful impacts of STIs on women and children, with little focus on men and their role in transmitting STI infections.

• A holistic approach that focuses on sexual health in the context of broader health and wellbeing is needed.
What is Sexual Health?

Sexual health is a state of physical, emotional, mental, and social well-being in relation to sexuality; it is not merely the absence of disease, dysfunction, or infirmity.

Sexual health requires a positive and respectful approach to sexuality and sexual relationships, as well as the possibility of having pleasurable and safe sexual experiences, free of coercion, discrimination, and violence. For sexual health to be attained and maintained, the sexual rights of all persons must be respected, protected, and fulfilled (WHO, 2006).
HHS should develop a vision and blueprint for sexual health and wellbeing that can guide the incorporation of a sexual health paradigm across all HHS programs, including the major public insurance programs, as well as the public health programs operated by the department.

The plan should align sexual health and wellbeing with other dimensions of health—physical, mental, and emotional.
Sexual Health Paradigm: Key Considerations

This should include:

• **New approaches and strategies for specifically engaging men** (including men who have sex with men) with readily available male-centered sexual health specialty services and the implementation of sexual and reproductive health services in primary care.

• **Strategies for improving sexual health services that address the needs of priority populations**, such as women, adolescents and young adults.

• **Expand attention and resources to underserved populations** including Black, Latino/a, and Indigenous populations, people who use drugs, people who engage in sex work, transgender, and gender-expansive populations.
Broaden Ownership and Accountability for Responding to STIs
Broaden Ownership & Accountability

• The committee observed that responsibility for responding to STIs was too narrowly vested in STI clinics or among STI specialists which has fueled inadequate attention and resources.

• The committee concluded that other parts of the health system, as well as other actors across society can and should be equipped to bolster an understanding of and promotion of sexual health.
The committee concluded that parents deserve special attention as a locus of change both because of the disproportionate rate of STIs among adolescents and young adults and the unique and important bond between parents and their children which can be leveraged to instill lessons for leading a sexually healthy life that can provide benefits into adulthood.
Better Support for Parents & Guardians to Model Sexual Health

Federal agencies and relevant professional organizations should equip parents with evidence-based guidance to engage in developmentally appropriate, comprehensive sexual health education, dialogue, and to identify actionable steps for their children.

HHS, through the CDC Division of STD Prevention, CDC Division of Adolescent Health and School Health, the Indian Health Service, and other key public health service agencies, should develop a national, parent-focused communication campaign to promote and guide parental communication with adolescents regarding sexual health and STI prevention.
Better Support for Parents and Guardians

• HHS, including CDC, HRSA, and NIH, should develop a *compendium* of existing evidence-based resources and programs for parental education and skills training on adolescent and young adult sexual health and STI prevention. In addition, there should be continued research investments to improve existing, and to develop new, evidence-based resources and programs.

• Guidelines should be developed for pediatric and adolescent health care to support skills training and educate parents in promoting adolescent and young adult sexual health, including the prevention of STIs.
Engage Community Stakeholders to Create Opportunities for Dialogue About Sexual Health

The committee finds that there is a need to introduce sexual health into society's lexicon.

This can be achieved through encouraging various entities and people in society to pro-actively promote sexual health and create new dialogues that give people of all ages opportunities to establish their own conception of sexual health, in a way that integrates education, prevention, screening and treatment for STIs.
Engage Community Stakeholders to Create Opportunities for Dialogue About Sexual Health

The CDC Division of STD Prevention should take steps to expand community knowledge of sexual health and promote actions that lead to a greater understanding of healthy sexuality by encouraging and supporting public dialogue and adoption of evidence-based interventions in various community settings (families, schools, faith communities, community-based organizations, and workplaces).
Bolster Existing Systems and Programs for Responding to STIs
Enhance Federal Leadership & Support

• The CDC Division of STD Prevention provides critical leadership in guiding the federal STI response. The committee concluded that the division should be more assertive, and in some cases, more prescriptive in its grants to states and local jurisdictions in order to establish minimum national STI standards of care.

• Existing structures are inadequate to meet the needs of local providers and health departments.

• Accurate STI surveillance is essential to understand the epidemiology of reportable STIs. Currently STI surveillance is difficult to interpret because it reflects case reporting, which is ecologic in nature, and periodic population-based studies, which are too small for meaningful subpopulation analyses.
Enhance Federal Leadership & Support

CDC should modernize its core STI activities to strengthen the timely monitoring of STIs with less reliance on estimated rates based on case reports, to inform proper treatment of persons with STIs, and to increase consistency and accountability across jurisdictions.

The committee recommends a three-pronged approach:
• Modernize surveillance activities to enable more rapid release of data
• Improve timeliness of the STI Treatment Guidelines
• Increase accountability and establish new funding requirements
Strengthen Local Efforts to Plan & Coordinate the STI Response

The CDC should encourage local health departments to develop and implement comprehensive plans for STI prevention and control by funding key partners, such as the National Association of County and City Health Officials and the National Coalition of STD Directors, to:

• develop resources and provide technical assistance to state and local health departments on how to conduct a meaningful stakeholder consultation process;
• how to develop a plan that offers strategic support for improving STI outcomes; and
• how to monitor implementation and keep the public informed of progress toward achieving the plan’s objectives.
Strengthen Local Efforts

• Conduct community-wide needs assessments.

• Identify mechanisms to meet the needs of underserved and highly impacted populations.

• Establish formalized, funded relationships with trusted community-based organizations to deliver critical STI prevention and care services.

• In collaboration with the National Network of STD Prevention Training Centers, NACCHO, and NCSD, CDC should develop STI Resource Centers (SRCs) for clinical consultation, workforce development, and technical assistance to support the planning process and provide consultation to individual clinical STI providers.
Support & Expand the STI Workforce

The committee recommends that sexual health promotion should be operationalized and prioritized in practice guidelines and training curricula for U.S. health professionals.

STI prevention and management should be incentivized and facilitated as a focus area of practice for both the clinical workforce and important segments of the nonclinical public health and social service professionals.
Support & Expand the STI Workforce

The committee recommends five programmatic priorities for implementing this recommendation:

1. Clinical practice guidelines and benchmarks should more heavily emphasize the importance of consistent delivery of recommended sexual health services (e.g., sexual histories, vaccinations, and routine STI screening).

2. Licensing bodies for primary care generalists and behavioral health specialists should formulate a minimum sexual health skill set to be reflected in formal training programs.
Support & Expand the STI Workforce

3. CDC and state and local health departments, in collaboration with STI/HIV expert providers and the regional STI prevention training centers, should serve as a resource of clinical expertise for primary care providers and nonclinical health and social services professionals and paraprofessionals.

4. CDC should identify federal and state policy actions that would most effectively expand the available workforce to address STI prevention, screening, and treatment.

5. CMS, HRSA, CDC, and other agencies should explore public-private partnerships.
Accelerate Research & Development for Biomedical Interventions

To improve the efficacy and reach of tools for STI management and prevention, NIH should prioritize development of

• point-of-care (POC) diagnostic tests;

• development of diagnostic tests for active syphilis;

• promotion of public-private partnerships to develop new antimicrobials; and expedited development of vaccines.
Deploy Psychosocial & Behavioral Interventions for Sexual Health

HHS should take steps to expand the reach of psychosocial and behavioral interventions to prevent and control STIs at the individual, interpersonal, and community level. This can be accomplished by:

- developing sustainable funding mechanisms to deliver those interventions;
- establishing standard guidelines for school-based comprehensive sexual health education; and
- disseminating community-based approaches.
Establish New Payment and Coverage Options to Close Gaps in Access to STI Coverage and Services

Because of the infectious nature of STIs and the need to achieve population-level declines in STIs, it is imperative that all people have access to appropriate STI services, without regard to ability to pay, immigration status, or other factors.
Establish New Payment and Coverage Options to Close Gaps in Access to STI Coverage and Services

HHS and state governments should identify and support innovative programs to assure that STI prevention and treatment services are available through multiple venues and assure that federal and state governments maximize access opportunities for individuals who face health care access barriers.

Priority populations:
• persons ineligible for coverage
• persons who face affordability barriers
• persons who will not access STI services without confidentiality guarantees (such as adolescents with insurance coverage through parents or guardians)
Embrace Innovation and Policy Changes to Improve Sexual Health
Address Structural Inequities that Hinder STI Prevention & Control

STI Macro-Level Structural Interventions:
- Address policies, social norms, distribution of power and resources with broad reach
- Interventions target federal/state health and social policies, structural discrimination

STI Meso-Level Structural Interventions:
- Address community/local norms, resources, and systems with more immediate institutions in which individuals or groups are involved
- Interventions target local educational, health care, and legal systems and institutions, community norms/resources, social networks
Address Structural Inequities that Hinder STI Prevention & Control

The Secretary of HHS should acknowledge structural racism and other forms of structural inequities as root causes of STI outcomes and inequities and as threats to sexual health.

- HHS should lead a whole-of-government response that engages all relevant federal departments and agencies to develop a coordinated approach to reduce negative STI outcomes and address inequities in the U.S. population.
Harness Technological Innovation

Key considerations:

1) Social media and mobile-app-based technological innovations have been primarily created by industry, and industry experts and companies needed to be included in the public health response to STIs;

2) Tools based on artificial intelligence (AI) will become increasingly better at targeting individuals and changing their behaviors; and

3) The ethical considerations around technological tools are evolving faster than policies that can address issues of concern. Public health agencies need to frequently and regularly evaluate new tools and public views about them to determine the best course of action for the changing ethical landscape.
Harness Technological Innovation

The CDC should expand its capacity to use technology for STI prevention and control.

- CDC should recruit seasoned individuals from the private and public sectors with experience in digital behavior change and team science to work collaboratively with agency public health and marketing staff.

- CDC also should develop timely and open data systems and deploy artificial-intelligence-based mass marketing strategies to advance STI prevention.
COVID-19 & STIs

The COVID-19 pandemic has exposed weaknesses in public health preparedness due to weak infrastructure, under-capacitated workforce, and limited surge capacity.

Strengthening the STI infrastructure and expanding its workforce offers the dual benefits of achieving better STI control and better positioning the nation for future public health threats. STIs are infectious diseases that require testing, treatment, and partner notification, and the STI workforce has deep expertise that can be tapped in the future.
Conclusion

• Sexual health is an essential component of overall health. Protecting the public from STIs is a critical first step toward a future that embraces a broad definition of wellness and wellbeing that considers being sexually healthy, being able to experience pleasure, and maintaining varied and meaningful relationships of one’s own choosing as the essence of being human.

• This is timely opportunity to execute the recommendations provided in this NASEM report given the recent different but related reports on STIs and the release of the first ever STI National Strategic Plan and the synergies among them.
Thank you!

For the report and related resources, see: http://www.nationalacademies.org/PreventSTIs

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