**Purpose:** Summary of national reports and existing models so that *Sexual and Reproductive Health (SRH) Workforce Project Summit* participants will be prepared for Workgroup and Summit activities.

Over the past 20 years, there has been a number of national commission reports focused on the future of health professions education. More recently, specific reports have focused on primary care, public health, and population-based health, as well as women’s preventive services including gender-based services under the 2010 Affordable Care Act. Specific to SRH services, the World Health Organization published Sexual and Reproductive Health standards and core competencies based on a foundation of public health and primary care. In the U.S., a new report out of the RAND Corporation recommends policy interventions to align SRH practice, education, and credentialing to address workforce needs. Additionally, a number of national reports focus on strengthening health professional practice and education across professions, populations, and clinical practice. Recommendations from these national reports have relevance for Summit objectives and outcomes and will inform the Summit participants and workgroup activities.

In addition to these national reports, there are examples from other populations and specialty areas such as gerontology, public health, genetics/genomics, and interprofessional practice that can serve as models for aligning SRH practice, education, and credentialing. Finally, select private and public funders in health professional education and practice are summarized. These reports and relevant models are summarized and related to the *SRH Workforce Project Summit purpose* and objectives—to align pre-licensure, competency-based sexual and reproductive health education, continuing professional development, and service delivery.

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Contents

1. Health Professional Workforce: Historical Overview ................................................................. 4

2. Reproductive Health Workforce .................................................................................................. 6

3. Health Professional Education Reports .......................................................................................... 8
   3.1 Health professionals for a new century: transforming education to strengthen health systems in an interdependent world. Lancet Commission 2010. See Appendix A. ...................... 8
   3.2 Who will provide primary care and how will they be trained? Macy Foundation 2010. See Appendix B. ........................................................................................................................................... 9
   3.3 Life Long Learning in Medicine and Nursing, Macy Foundation 2010. See Appendix C. ......................................................................................................................................................... 10
   3.4 Redesigning Continuing Education in the Health Professions, IOM 2010. See Appendix D. .................................................................................................................................................................. 11

4. Aligning Practice, Education, and Credentialing Reports ............................................................. 13
   4.1 Sexual & Reproductive Health competency-based specialty training for public health and primary care services and providers. See Appendix E. .................................................. 13
   4.2 Primary Care and Public Health: Exploring Integration to Improve Population Health, IOM 2012. See Appendix F. .............................................................................................................................................. 13
   4.3 Best care at lower cost: The path to continuously learning health care in America, IOM 2012. See Appendix G. .................................................................................................................................................... 14

5. Competency-based Education Models: Global Model ................................................................ 15
   5.1 World Health Organization SRH standards/core competencies for public health and primary care providers (core competencies; instructional standards/content). 2010. See Appendix H. .................................................................................................................................................................. 15

   6.1 Genetics and genomics core competencies for all health professionals (process for development and implementation) ............................................................................................................ 16
   6.2 Gerontology core competencies for nursing and primary care clinicians ................................. 16
   6.3 Interprofessional Education & Practice Competencies .............................................................. 17
   6.4 Public Health Competencies .................................................................................................... 18
7. **Private-Public Funding Sources** ........................................................................................................ 19

7.1 Health Resources Service Administration: Bureau of Health Professions (Division of Medicine/Nursing, Title VII-VIII funding; Area Health Education Centers), the Bureau of Primary Health Care, and the Maternal Child Health Bureau ............................................. 19


7.3 Josiah Macy Jr. Foundation ..................................................................................................................... 21

7.4 John A. Hartford Foundation ................................................................................................................. 21

7.5 Robert Wood Johnson Foundation .................................................................................................... 22

8. **Related Reports (not summarized)** ................................................................................................ 24

8.1 Review of the HHS Family Planning Program: Mission, Management, and Measurement of Results, IOM 2009. ........................................................................................................... 24

8.2 Future of Nursing: Leading Change, Advancing Health (portions of report related to education and regulatory change), IOM 2009. ................................................................. 25

8.3 Clinical Preventive Services for Women—Closing the Gap, IOM 2010. ............................... 25

8.4 Department of Veteran Affairs Patient Aligned Care Teams (PACT) Model, 2010. ...... 26

8.5 For the Public’s Health: Investing in a Healthier Future, IOM 2012. ............................... 26
1. Health Professional Workforce: Historical Overview

The Pew Charitable Trusts, through their Strengthening the Health Professions Initiative, impaneled the Pew Health Professions Commission to stimulate reform in health professions education. The Pew Health Professions Commission was established in the spring of 1989 and was administered by the University of California at San Francisco, Center for the Health Professions. The Commission was charged with assisting health professionals, workforce policy makers, and educational institutions in responding to the challenges of the changing health care system.

In its first report, “Healthy America: Practitioners for 2005“, released in October 1991, the Pew Health Professions Commission chronicled several major health system trends, including cost containment, consumer involvement, access to care, and shifts in demographics and disease burdens. It identified 17 competencies that practitioners should be prepared for by the year 2005. Recommendations include: expand access to effective care; provide contemporary clinical care; emphasize primary care; participate in coordinated care; practice prevention; involve patients and families in the decision-making process; promote healthy lifestyles; assess and use technology appropriately; manage information; provide counseling on ethical issues; accommodate expanded accountability; and continue to learn.


In its Second Report, the Commission’s work identified and explored how regulations protect the public's health, and proposed a new approach to health professionals' licensure, certification, and regulations. In December 1995, the Commission released, "Reforming Health Care Workforce Regulation: Policy Considerations for the 21st Century“, which details the challenges for the 21st century that must be faced by state legislatures, professional boards, consumers and the health care professional and provider communities as they endeavor to improve the regulation of health professionals. The report presents ten recommendations for reform and offers policy options for state consideration under each recommendation as a way of stimulating debate and discussion on each of the issues.


The Third Report of the Pew Health Professions Commission, “Critical Challenges: Revitalizing the Health Professions for the Twenty-First Century,” describes a transformed U.S. health care industry characterized by systems of integrated care combining primary, specialty, and hospital services. Forecasting the success of such systems, the Report states that they will produce better management, accountability, responsiveness, more effective use of resources, innovation, and diversity in health delivery, inclusivity in the definition of health, more concern about education, prevention and care management rather than treatment, more orientation to what is improving the health of the entire population, and more reliance on outcomes data and evidence. The Report predicts that these changes will cause closure of as many as half of the nation's hospitals; expansion of primary care; surpluses in the supply of physicians, nurses, and pharmacists; consolidation of allied health
professions; and demand for public health professionals. There are specific recommendations for each category of health professional.

  http://futurehealth.ucsf.edu/Content/29/1995-12_Critical_Challenges_Revitalizing_the_Health_Professions_for_the_Twenty-First_Century.pdf

The Pew Commission’s Fourth and final report titled “Recreating health professional practice for a new century” offers recommendations that affect the scope and training of all health professional groups, as well as 21 competencies for all health professions for the 21st Century.


Ten years after the final report of the Pew Health Professions Commission—in a 2008 report by the Association of Academic Health Centers, titled “From Education to Regulation: Dynamic Challenges for the Health Workforce”—Catherine Dower (ch. 3) and Stephen Collier (ch. 1) examine regulatory mechanisms, both the time-worn approaches that are ill-suited to the United States’ maintaining scientific and economic leadership in an era of globalized competition and recent education and workforce trends that are producing unintended, negative consequences. Dower argues that licensure on a state-by-state basis hinders mobility of health professionals, leads to ‘wasted’ education where people are trained beyond practice authority, and perpetuates entrenched turf battles between professions; she explores whether the U.S. might expand workforce capacity by aligning practice acts more closely with competencies. Collier suggests that recent trends in credentialing, including ‘degree creep’ and what he deems the bifurcation of the health workforce, should lead to enhanced access to care and levels of care. Yet, he concludes that the nation faces ongoing concerns in education and workforce distribution that are not being adequately addressed.

  http://www.aahcndc.org/policy/reports/From_Education_to_Regulation.pdf
- U.S. Department of Health & Human Services (DHHS), Health Resources Services Administration (HRSA). National Center Health Workforce Analysis.  
  http://bhpr.hrsa.gov/healthworkforce/index.html
2. **Reproductive Health Workforce**

Current trends in supply and demand for SRH services, particularly for low-income individuals, suggest a growing gap in the next decade, with demand outstripping supply of competent health professionals. The reasons for this gap are tied less to the production of clinicians overall and more to a reduced production of health professionals trained to deliver SRH care. A 2012 study by the RAND Corporation is the first U.S. report focusing on the reproductive health workforce with analysis of supply and utilization combined with proposals for policy intervention.


Although this report focuses on nurse practitioners (NPs), many of the findings and recommendations are relevant to other providers of SRH services including registered nurses, physician assistants, nurse-midwives, primary care physicians, and obstetrician-gynecologists. We have incorporated a broader discussion of the supply and demand for SRH services. The impact of the evolving health care delivery system and expanding health insurance coverage is analyzed, which offers an opportunity to integrate the currently “silod” system and bring it closer to the comprehensive system of SRH services integrated across public health and primary care that the WHO recommends (p. 60 of the report).

**Short and intermediate policy options and interventions spanning education, federal/state policy, and emerging models of care delivery** that have the potential not only to close expected supply-demand gaps in the SRH workforce but to improve the quality and efficiency of SRH service delivery, expand the provider base delivering SRH services, and better integrate these services with other parts of the health care system are suggested. **Eleven options for policy interventions are found in chapter 5 of the RAND Report (pp 51-59).**


**Recommendations:**

- **Apply a unifying definition of SRH as used by the World Health Organization.** SRH care is sometimes thought of narrowly as maternal-child, family planning, or women’s health care. However, to produce optimal health outcomes, many experts believe SRH care should include the reproductive health of men and women throughout their lifespan and adolescents of both sexes. Under a definition accepted by the World Health Organization (WHO) and implemented in a number of national health systems, a minimum package of SRH care accessible to all would include preconception care, contraception, pregnancy and unplanned pregnancy care, women’s health/common gynecology care, genitourinary conditions of men, assessment of specialty gynecology problems including infertility, sexual health promotion, and delivered within a system of public health and primary care services (page xiii and page 60).
• **Adopt a standardized, interprofessional curriculum for teaching core competencies in SRH.**
  A standardized curriculum for teaching core competencies has been developed in gerontology, behavioral health and genetics but does not exist for SRH care in the U.S. Fortunately, the WHO has created a standard set of domains and core competencies for SRH. We describe this model implemented by the United Kingdom National Health Service, which aligns competency-based SRH education, practice and credentialing standards within a coordinated system of primary care and public health (See options 1, page 52-54; Model on page 60-63).

• **Integrate SRH education, clinical training, accreditation, and credentialing across professions.**
  In this area, options include standardizing curricula and training, as has been achieved in other cross-cutting fields of health care such as gerontology, psych-mental health, and genetics. A core set of standards and competencies will enable development of a standard curriculum. This will allow programs to better integrate SRH and primary care training and clarify the opportunity for clinicians with a potential interest in SRH. Development and expansion of clinical practice training programs in SRH care can quickly build and consolidate skills of student, residents and post-graduate clinicians. Basing certification requirements on competencies rather than other criteria could replace the restrictive pathways to certification that currently impose barriers to obtain certification in SRH care. (See options 2-3, page 52-54)

• **Respond to emerging models of care delivery.**
  New models of health care delivery create new policy options for increasing primary care clinician engagement in SRH service delivery. First, as accountable care organizations and other integrated models emerge, several enabling actions could promote greater integration of SRH care into these models. These might include co-location of SRH-competent providers in primary care clinics such as federally qualified health centers or community health centers; expansion of retail clinics and nurse-managed health centers with SRH services; and setting payment rates based on services rather than provider type. (page 58-59, Option 10-12)

• **Consider innovative models currently under development in the United States.**
  Policy options 4-7 recommend 1) enabling Title X Clinics to act as sites for APRN internships and residency training programs and finance the participation of clinical residents at these sites; 2) expanding the list of services included under Title X Service Standards and co-locate SRH with other publicly funded health services delivery organizations; 3) enabling Title X clinicians to participate in existing student loan forgiveness programs; and 4) integrating SRH Services into primary care.

• **Estimations of the total workforce prepared to provide SRH care is complex and limited.**
  The limitation of this report is that it focused on nurse practitioners and to some extent midwives and physician assistants. With likely shortages of primary care physicians including ob-gyn physicians, a shrinking proportion of NPs prepared to provide women’s health, and even fewer health professionals providing services in public health, community clinics, and family planning, there is a need to consider the overall SRH workforce estimations. The supply may be more than adequate to meet growing demands for SRH services if primary care clinicians were competent in SRH care and if there were incentives to choose this area of practice (page 23-37).
3. **Health Professional Education Reports**

The following reports provide recommendations that will inform our work in multiple areas: new models for creating accountable educational systems and redesigning basic and postgraduate education with a particular focus on the integration of population based primary care. **Each of these four reports is summarized in more detail in Appendices A-D.**

3.1 **Health professionals for a new century: transforming education to strengthen health systems in an interdependent world.** Lancet Commission 2010. See Appendix A.

This far reaching report from an independent interdisciplinary commission sponsored by the Gates Foundation, the Rockefeller Foundation, and the China Medical Board developed a shared vision and a common strategy for postsecondary education in medicine, nursing, and public health reaching beyond national borders and professional silos.


**Recommendations**

*In general, these are practical recommendations for specific actions to transform the instructional and institutional education of health professionals in all countries with the goal of transformative and interdependent professional education for equity in health (see Figure 10–11).*

The Commission divided their specific recommendations into two categories: **instructional and institutional.** They propose that reforms in each of these should be guided by two proposed outcomes; **transformative learning** represents the target outcome of the former while **interdependence in education** the latter.

- **Instructional reforms (see Figure 12 and Panel 9: Proposed Reforms):**
  - Competency-driven. Adoption of nationally determined competency-based curricula that is responsive to rapidly changing needs, adaptable to local contexts, and reflective of global knowledge and experiences. **See Figure 9: Competency-based education and Table 3: levels of learning.**
  - Promotion of interprofessional and transprofessional education that transcends professional silos through collaborative, non-hierarchical health care teams. **See Figure 10—Models of interprofessional and transprofessional education.**
  - IT-empowered. Adjustment of educational institutions to enable realization of the potential of informational technologies for promoting transformative learning through the development of mechanisms facilitating the development of competencies in knowledge acquisition, discrimination, analysis, and use.
  - Local-Global. Prioritization of local adaptability in conjunction with the use of global knowledge, experience, and resources including faculty, curriculum, didactic materials, and students.
  - Strengthening of educational resources, including faculty, syllabi, didactic materials, and infrastructure, needed to achieve competencies.
Transformation of conventional professional silos through the promotion of a new professionalism that classifies health professionals by competencies.

- **Institutional reforms** (see Figure 12 and Panel 9: Proposed Reforms):
  - Establishment of joint planning processes that engage key stakeholders in the assessment of national conditions, setting of priorities, shaping of policies, tracking of changes, and harmonization of the supply of and demand for health professionals.
  - Transformation of academic centers to academic systems that allow for the extension of responsive and dynamic professional educational systems into primary care settings and communities.
  - Networks: Linkage of educational institutions worldwide to one another and to allied actors including governments, civil society organizations, business, and media to allow for the non-exploitative and non-paternalistic equitable sharing of resources in knowledge and information between developed and developing countries.
  - Adoption of a culture of critical inquiry as a central function of educational institutions.

### 3.2 Who will provide primary care and how will they be trained?

Macy Foundation 2010. See Appendix B.

The Josiah Macy Foundation convened a conference of 49 experts across sectors affected by the challenges related to primary care (consumers, academia, practice, science, journalism, government, healthcare policy, payors, and foundations). Consensus was achieved on a guiding vision where primary care will be provided by teams of health professionals, including physicians, nurses, and physician assistants, educated in systems incorporating primary care experiences and interprofessional training in the delivery of high-quality primary care to patients and families as individual units and as part of communities. The conference culminated in a number of conclusions and recommendations for financial, healthcare, and education reform necessary to realize the proposed vision. Five white papers were prepared for the JMF conference on who should provide primary care and how they should be trained. Three papers focused on physicians, nurse practitioners, and physician assistants are summarized.


To achieve this vision, the participants’ recognized the need for reforms in reimbursement and care delivery models as well as the development of innovative, team-based primary care practices and their involvement in training the next generation of primary care providers. They also called for the preparation of providers as representatives of public interests in a strong primary care infrastructure and participants in continuous health care improvement in key outcomes including access, cost, and quality.

**Conclusions**

**Conclusion I**: The attraction and retention of sufficient numbers of primary care providers requires an incentive structure that changes the way that primary care is valued, delivered, and integrated in evolving healthcare systems.

**Conclusion II**: Current health professional education models are not, in general, adequate for the attraction, training, and retention of primary care providers.
**Conclusion III:** Strong leaders are needed to promote the science, teaching, practice, and policy development relevant to primary care.

**Recommendations**

- **Physician training and education in primary care.**
  - Increased funding
  - Increased exposure to community health settings,
  - Expansion of primary care residency training programs
  - Establishment of family medicine departments in all U.S. medical schools and development of associated area health education centers (AHEC)
  - Medical education focusing on “real world” competencies of the primary care physician
  - Improvement of the practice environment for primary care physicians

- **NPs as Primary Care Providers.**
  - Regulation of scope of practice and prescriptive authority should be standardized at the most flexible
  - Educational programs for all health care professionals should focus on collaborative, primary care practice
  - Funding for graduate nurse education should be increased federally through loans, tuition reimbursement, and repayment options for students focused on primary care practice
  - DNP programs should continue as post-master’s programs and not be required for entry into advanced practice
  - Continue to investigate differences in outcomes of models of care, particularly interdisciplinary primary care medical homes and use these sites as training sites for health care professional students

- **PAs as Primary Care Providers**
  - Federal reimbursement or funding incentives for PAs (and NPs) to work in primary care
  - Promote primary care to increase recognition of its importance and awareness of it as a provider option through advertising
  - View primary care in its broadest sense, for example including mental health
  - Funding for medical homes to include student placements
  - Expand educational opportunities in primary care for all health professionals
  - Include experience working with PAs and NPs as part of MD training in primary care
  - Re-establish federal funding for PA training
  - Consider other models of training from other health professions as models for teaching inter-disciplinary training in primary care

3.3 **Life Long Learning in Medicine and Nursing,** Macy Foundation 2010. See Appendix C.

A conference, consensus process, recommendations and published plan for improvement in continuing education was funded by the Josiah Macy Foundation and co-sponsored by AACN and AAMC over a period of three years (2007-2010).

Recommendations

- General recommendations address barriers to the development of a new model of Lifelong Learning (LLL), including insufficient financial and logistical support for LLL and CE, lack of uniformity in health information technology, emphasis on hours of credit and other requirements imposed by regulators, the size of the current CE industry, CE payment systems, individual practitioner inexperience in self-assessment, and lack of effective tools for measurement of the impact of CE on practice.

In addition, over 30 recommendations were identified in four key areas:

- **Continuing Education**: Encompasses traditional formal or classroom education, including several formats from passive, didactic, large-group presentations to highly interactive methods, such as workshops, small groups or individualized training sessions, as well as alternative educational methods such as academic detailing; educational materials; and patient-mediated strategies. Recommendations (3) recognize limitations of traditional CE.

- **Interprofessional Education (IPE)**: Recommendations (4) highlight the need for educational and healthcare institutions to adopt a new and meaningful outcomes-oriented IPE framework that is patient-centered, nimble, and present across the entire educational continuum. Regulatory and accrediting bodies should incorporate IPE requirements into standards and policies.

- **Lifelong Learning**: Recommendations (3) encourage academic and healthcare institutions to create an outcomes-focused educational infrastructure to assess, support, and facilitate lifelong learning needs throughout health professionals' working lives and to develop curricula that develops self-directed learners with skills in knowledge acquisition, appraisal, and application.

- **Workplace Learning**: Recommendations (4) conceptualize the workplace as a complex adaptive system and advocate for educational and healthcare institutions to embrace a disruptive approach to change that leads to large-scale, transformative change aligning current educational systems, health professionals' lifelong learning needs, and the needs of the health care environment by embedding data-driven, participatory, and patient-centered CE interventions in the workplace that are supported by regulatory and accrediting bodies.

3.4 Redesigning Continuing Education in the Health Professions, IOM 2010. See Appendix D.

The Committee on Planning a Continuing Health Professional Education Institute was convened by the Institute of Medicine (IOM) in response to a call, resulting from a 2007 conference convened by the Josiah Macy, Jr. Foundation for the creation of a national interprofessional CE institute responsible for the advancement of the science of CE. The committee was charged with exploring health professional CE and offering guidance on the development, establishment, and operation of such an institute. Its work builds on, and is consistent with, IOM reports published as part of a 10-year exploration of how to improve the quality of patient care, the outcomes of this care, and patient safety.

Recommendations

The committee generated **ten recommendations giving practical suggestions for the creation and operation of the Continuing Professional Development (CPD) Institute.**

- **Recommendation 2:** need for an institute that prioritizes a scientific approach to CPD and employs technologies facilitating ongoing evaluation and improvement of CPD programs.

- **Recommendation 3:** collaboration between stakeholders in developing an improved CPD system and recognizes the need for the CPDI to work with existent agencies involved in the evaluation of health professional performance.

- **Recommendation 4:** improve the underlying scientific foundation of CPD by utilizing methods and findings from research in a variety of disciplines, application of CPD solutions to problems involving patient and population health status, developing CPD tools and methods for improving patient health.

- **Recommendation 5:** need for enhanced data collection methods so CPD can be accurately assessed and evaluated at the individual, team, organizational, system, and national levels.

- **Recommendation 6:** CPDI to serve as the entity responsible for setting standards in CPD for regulatory bodies across the health professions, including licensure, certification, credentialing, and accreditation.

- **Recommendation 7:** need for the CPDI to develop and adopt national guidelines on conflicted sources of funding so that conflicts of interest are avoided and a sustainable business model promoting CPD as a tool to improve quality and patient safety.

- **Recommendation 8:** CPDI fosters models of CPD that build knowledge about interprofessional team learning and collaboration.

- **Recommendation 9:** new methods of CPD to be rigorously tested to prove their efficacy and advocates for federal agencies that support demonstration programs, such as the AHRQ, to collaborate with the CPDI to to advance health professional performance.

- **Recommendation 10:** continuous evaluation of individual health professionals, stakeholder organizations, the CPDI, and the overall CPD system to ensure that progress is being made towards better health professional development.
4. **Aligning Practice, Education, and Credentialing Reports**

4.1 **Sexual & Reproductive Health competency-based specialty training for public health and primary care services and providers.** See Appendix E.

Developed collaboratively by the UK National Health Service, the Royal College of Nursing and the Royal College of OB-Gyn (core competencies, certification standards/training guidelines, competency-based training/evaluation for nurses, midwives and generalist physicians), 2009-2010.

In the UK, a coordinated system of SRH education, training and certification has been established for RNs, nurses with advanced training, NPs, midwives, and non-specialist physicians (GPs) working in the National Health Service. Competency-based education, training and certification in the specialty of SRH and includes competencies in 10 areas: Basic SRH services/skills; contraception; unplanned pregnancy care; women’s health/common gynecology; assessment of specialty gynecology problems; pregnancy care; genitourinary conditions of men; sexual health promotion; public health, ethical, legal competencies; and leadership, management, IT, audit competencies. In this rational system, curriculum and training processes are coordinated across these 10 components using a combination of teaching-learning and evaluation modalities. The following references describe the content and methods for the SRH specialty training program for primary care and public health professionals:


- This link includes 15 modules for each of the core competencies in the provision of SRH (basic, intermediate, advanced) and 8 sections on training processes and evaluation of competencies See overview of these sections at [http://www.fsrh.org/pdfs/SpecialtySection1.pdf](http://www.fsrh.org/pdfs/SpecialtySection1.pdf)


- For E-portfolio model used in the UK across medicine and nursing for assessing and monitoring competency, see [https://www.nhseportfolios.org/Anon/AboutUs.aspx](https://www.nhseportfolios.org/Anon/AboutUs.aspx)

4.2 **Primary Care and Public Health: Exploring Integration to Improve Population Health**, IOM 2012. See Appendix F.

Recommendations and strategies from this report can inform the integration of SRH into primary care and public health. Opportunities for funding through HRSA, CDC and HHS are
highlighted in this report.


The committee's charge outlined specific areas requiring attention. These included identifying examples of effective public health and primary care integration; suggesting ways that the CDC and HRSA could use the Patient Protection and Affordable Care Act (ACA) to promote the integration of primary care and public health; and discussing how primary care systems and state and local public health departments can coordinate disease prevention efforts affecting health disparities or specific populations (e.g., cardiovascular disease prevention, maternal and child health, and colorectal cancer screening). Drawing from local and community successes in the integration of care delivery and improvement in primary care and public health the committee developed strategic and practical recommendations that could be implemented with the available resources and leadership commitment while also utilizing emerging opportunities in the knowledge, policy, funding, and information technologies.

4.3 Best care at lower cost: The path to continuously learning health care in America, IOM 2012. See Appendix G.

Selected strategies are highlighted that apply to aligning SRH care and education within the proposed Learning Health Care System.


The IOM Committee on the Learning Health Care System in America, an initiative organized by the Roundtable on Value & Science-Driven Health Care, was convened to explore and advance a vision of continuously learning health care. The Roundtable convened leaders from across the health care system—including representatives of patients and consumers, providers, manufacturers, payers, research, and policy—to help make continuous improvement in performance an intrinsic part of U.S. health care. The committee’s report describes the key challenges faced by the health care system today—the mounting complexity of modern medicine, the rising cost of care, and the limited return on investment and how to harness new technologies, innovations, and approaches to overcome these challenges. Outlined in the report is a vision and strategies for a new system: a learning health care system that links personal and population data to researchers and practitioners, dramatically enhancing the knowledge base on effectiveness of interventions and providing real-time guidance for superior care in treating and preventing illness. Specific actions are focused on all stakeholders—patients, clinicians, professional societies, health care delivery organizations, payors, employers, technology developers, researchers, private philanthropies, and government agencies.
5. Competency-based Education Models: Global Model

5.1 World Health Organization SRH standards/core competencies for public health and primary care providers (core competencies; instructional standards/content). 2010. See Appendix H.

In the US, SRH services for men and women are fragmented and not integrated within a primary health care system of public health and primary care services. Furthermore, unlike other developed countries, most of our national health goals have not been achieved, specifically reduction of unintended pregnancies and sexually transmitted infections. A global model that has the potential to drive a coordinated system of SRH services within a public and private primary care system in the US is the WHO model of SRH services and the necessary standards and provider competencies. The WHO definition and outcomes of SRH care goes beyond maternal child health care to include the reproductive health of men and women throughout their life-cycle, and adolescents of both sexes.

In 2005, the World Health Organization led the General Assembly of the United Nations in adopting a resolution that all countries of the world strive to achieve universal access to reproductive health by 2015 (WHO, 2009). To meet this Millennium Development Goal, national health care systems must increase their delivery of SRH by a work force that has adequate knowledge, skills, and appropriate attitudes to provide competent SRH care. Toward this goal, the WHO has proposed core SRH competencies for health personnel. These competencies and service standards can be found at:


The WHO also conducted an intercountry survey to identify SRH provision in primary health care and which health care workers (CHW, nurses, midwifes, doctors) are providing the proposed 7 technical areas of SRH services across clinician type, setting, and degree of SRH integration into primary health care: antenatal, childbirth, newborn, family planning/infertility, abortion, STI/RTI, violence/cancer screening, and sexual health promotion/education.


There are 13 competencies grouped into 4 domains encompassing attitudes, tasks, knowledge, and skills that health personnel in primary health care may need to protect, promote, and provide SRH in the community. Health-care personnel will require a range of competencies from different domains. Each of the four domains includes a description of each competency, each with associated tasks, knowledge, and skill (the first domain includes behavior and knowledge) and makes a contribution to the four pillars of primary health care reform.
6. **Competency-based Education Models: National Models**

6.1 Genetics and genomics core competencies for all health professionals (process for development and implementation)


  - This publication—*Essentials of Genetic and Genomic Nursing: Competencies, Curricula Guidelines, and Outcome Indicators, 2nd Edition*—should be reviewed in conjunction with state board of nursing policies and practices. State law, rules, and regulations govern the practice of nursing, while *Essentials of Genetic and Genomic Nursing: Competencies, Curricula Guidelines, and Outcome Indicators, 2nd Edition* guides nurses in the application of their professional knowledge, skills and responsibilities.


6.2 Gerontology core competencies for nursing and primary care clinicians

Government funding, primarily through HRSA, has been essential for establishing training in Geriatrics for nurses, physicians, and other health professionals including grants for Comprehensive Geriatric Education Training Programs, Geriatric Academic Career Awards, and Geriatric Education Centers. ([http://bhpr.hrsa.gov/grants/geriatricsalliedhealth/index.html](http://bhpr.hrsa.gov/grants/geriatricsalliedhealth/index.html))

The Hartford Foundation ([www.jhartfound.org](http://www.jhartfound.org)) in partnership with organizations representing nursing and medicine (e.g., the American Geriatrics Society, the American Association of Medical Colleges [www.aamc.org], the American Association of Colleges of Nursing [www.aacn.nche.edu], and the American Academy of Nursing [http://www.aannet.org/]) have developed programs to increase the number of nurses and doctors able to teach geriatrics and improve the geriatric content of health professional education and training.

Building geriatric social work capacity. 2009 Annual Report. 

Geriatric Nursing Initiative, including Centers of Geriatric Nursing, focused at all levels of nursing education from the associate degree to post-doctoral levels to build nursing competence and skills in care of the older adult (since 1996). Building geriatric nursing capacity. 2006 Annual Report. 
http://www.jhartfound.org/file/ODU=/JAH%202006%20Annual%20Report.pdf and 
http://www.jhartfound.org/grants-strategy/nursing-education/

Core competencies for all medical and nursing school graduates; integration of geriatric care competencies for advanced practice nurses, specialty and primary care physicians including surgeons and emergency medicine clinicians.

- [http://www.jhartfound.org/grants/936/](http://www.jhartfound.org/grants/936/) Core competencies for nurses (AACN)
- Building interprofessional team care capacity. 2007 Annual Report. 

References related to developing national consensus-based competencies for APRNs and primary care clinicians:


### 6.3 Interprofessional Education & Practice Competencies

Interprofessional education has been recommended by a number of national commissions beginning with the Pew Health Professions Commission based on the evidence that health workers who are trained together toward common outcomes will be able to provide safe and effective health care. The following initiatives and reports include:

• In June 2012, DHHS-HRSA, in partnership with four foundations, created a new national Center for Interprofessional Education and Collaborative Practice. The Josiah Macy Jr. Foundation, the Robert Wood Johnson Foundation (RWJF), the Gordon and Betty Moore Foundation, and The John A. Hartford Foundation have collectively committed up to $8.6 million in grants over five years to support and guide the Center, which will work to accelerate team work and collaboration among doctors, nurses and other health professionals—as well as patients—and break down the traditional silo-approach to health professions education. The yet to be announced coordinating center for *interprofessional education and collaborative practice* (CC-IPECP) is expected to be a focal point in a growing national effort to foster IPECP among health professions. Through innovative program coordination, scholarly activities, and analytic data collection efforts, the CC-IPECP will serve as a hub to generate, coordinate, evaluate, and disseminate safe, efficient, effective, and equitable practice models that are essential for education and practice in emerging integrated care delivery.

http://bhpr.hrsa.gov/grants/interprofessional/index.html

6.4 Public Health Competencies

Core competencies for Public Health Professionals were designed for public health professionals at three different levels: Tier 1 (entry level), Tier 2 (supervisors and managers), and Tier 3 (senior managers and CEOs). The Core Competencies are a set of skills desirable for the broad practice of public health, reflecting the characteristics that staff of public health organizations may want to possess as they work to deliver the Essential Public Health Services).

http://www.phf.org/resourcestools/Pages/PublicHealth_Competencies_and_Essential_Services.aspx

To support use of the Core Competencies, the Core Competencies Workgroup has drafted examples for several competency statements illustrating how competence can be demonstrated. These examples appear primarily in the competency domains of Financial Planning and Management and Leadership and Systems Thinking.

http://www.phf.org/resourcestools/Pages/How_to_Demonstrate_Attainment_of_Specific_Competencies.aspx

In 2011, the Quad Council of Public Health Nursing Organizations updated its Core Competencies for Public Health Nurses (CCPHN) to align with the Council on Linkages Between Academia and Public Health Practice’s revised Core Competencies for Public Health Professionals (Core Competencies). The CCPHN are based on the same eight domains and three-tier structure as the Core Competencies, and can be used by public health nurses from entry-level to senior management in a variety of practice settings. Though based on the Core Competencies, the CCPHN reflect the unique competencies required for the practice of public health nursing.

http://www.phf.org/resourcestools/Pages/Public_Health_Nursing_Competencies.aspx
7. Private-Public Funding Sources

7.1 Health Resources Service Administration: Bureau of Health Professions (Division of Medicine/Nursing, Title VII-VIII funding; Area Health Education Centers), the Bureau of Primary Health Care, and the Maternal Child Health Bureau.

Established in 1980, HRSA is the primary federal agency of the U.S. Department of Health & Human Services responsible for ensuring access to healthcare services for people who are uninsured or medically vulnerable, including those living with HIV/AIDS, mothers and children, and those living in rural areas. HRAS has established four goals to help achieve its mission: to improve 1) access to quality care and services, 2) the health workforce, 3) healthy communities, and 4) health equity. HRSA is organized into 6 bureaus and 10 offices; in fiscal year 2010, HRSA was appropriated $7.5 billion (approx. 1% of the DHHS budget) with 30%, 16% and 13% of funding dedicated, respectively, to primary care initiatives, health workforce development, and maternal child health programs. 


Government funding through HRSA Bureaus, including Title VII (Medicine) and Title VIII (Nursing) funding, to area health education centers (AHEC), the Primary Health Care Policy Fellowship (currently unfunded), loan repayment programs and scholarships, and funding of health professional education programs to support trainees and training infrastructures in primary care settings, has been essential to aligning education and practice for underserved communities.

HRSA functions to improve health by funding health care initiatives and systems such as health clinics, maternal-child health initiatives, and workforce programs including training and loan reimbursement programs. Two HRSA Bureaus—the Bureau of Primary Health Care and the Maternal Child Health Bureau—funds health centers in underserved communities that provide comprehensive primary and preventive health care, pre- and postnatal care, and health care for children with special needs based on national health goals/metrics (e.g., reducing health disparities, infant mortality, and improving access to primary care and prevention services). While most primary care in the US is delivered outside of the HRSA-supported primary care systems, these systems (e.g., FQHCs or FQHC look-alikes) served 19.5 million patients in 2010.

The Bureau of the Health Professions programs provide policy leadership and grant support for health professions workforce development—making sure the U.S. has the right clinicians, with the right skills, working where they are needed. These programs, which include a wide-range of training programs, scholarships, loans, and loan repayments for health professions students and practitioners, are essential to producing health professionals who provide high quality, culturally competent health care. 

http://bhpr.hrsa.gov/about/index.html

HRSA supports approximately 70 programs that provide funding to academic institutions, community health centers, public health departments, and local communities. In the last few years, HRSA has partnered with other federal agencies, foundations, and public and private organizations to work towards a shared vision to transform a siloed U.S. healthcare system into one that engages patients, families, and communities in collaborative, team-based care. Some of these initiatives and funding programs provide a model for the integration of SRH into emerging primary care and population based services as well as provider education programs for these emerging health systems. For example, HRSA’s
Bureau of Health Professions has funded the following programs:

- The **Area Health Education Centers** (AHEC) Program to enhance access to high quality, culturally competent healthcare through community-based interprofessional training, continuing education, and health careers outreach activities that will ultimately improve the distribution, diversity, and supply of the primary care health professions workforce who serve in rural and underserved healthcare delivery sites. The AHEC programs and centers, along with their state and local partners, (1) implement community-based training programs for students in the health professions; (2) implement continuing education for healthcare providers; and (3) provide health careers outreach activities that are responsive to the current healthcare workforce, service delivery and access needs of underserved populations. [http://bhpr.hrsa.gov/grants/areahealtheducationcenters/index.html](http://bhpr.hrsa.gov/grants/areahealtheducationcenters/index.html)


- A coordinating center for **interprofessional education and collaborative practice** (CC-IPECP) to provide an infrastructure for leadership, expertise, and support to enhance the coordination and capacity building of IPECP among health professions across the U.S. and particularly in medically underserved areas. Through innovative program coordination, scholarly activities, and analytic data collection efforts, the coordinating center will raise the visibility of high-quality, coordinated, team-based care that is well-informed by interprofessional education and best practice models. [http://bhpr.hrsa.gov/grants/interprofessional/index.html](http://bhpr.hrsa.gov/grants/interprofessional/index.html)

- Accredited schools and programs of social work and doctoral psychology to strengthen the clinical field competencies in **Behavioral and Mental Health** of social workers and psychologists who pursue clinical service with high need and high demand populations. [http://bhpr.hrsa.gov/grants/mentalbehavioral/index.html](http://bhpr.hrsa.gov/grants/mentalbehavioral/index.html)

- The **Teaching Health Center in Graduate Medical Education** (THCGME)—a $230 million, five-year initiative which began in 2011 to support an increased number of primary care residents and dentists trained in community-based ambulatory patient care settings. [http://bhpr.hrsa.gov/grants/teachinghealthcenters/index.html](http://bhpr.hrsa.gov/grants/teachinghealthcenters/index.html)

- Through HRSA’s Nurse-Managed Center Grants, NP residencies have been developed to better prepare advanced practice nurses in clinical primary care and the complex needs of the underserved. [http://scienceofcaring.ucsf.edu/future-nursing/are-residencies-future-nurse-practitioner-training](http://scienceofcaring.ucsf.edu/future-nursing/are-residencies-future-nurse-practitioner-training)

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**7.2 Office of Population Affairs, U.S. Department of Health and Human Services.**

The **Clinical Training Center for Family Planning** funded by the DHHS-OPA provides training for clinical family planning preceptors to ensure that direct care providers in Title X settings apply the most current knowledge and skills necessary for effective delivery of high quality family planning services. With additional funding, this effective model could be expanded to be a coordinating center for clinical preceptors in SRH education, mentoring and skills assessment of primary care clinicians in SRH.
7.3 Josiah Macy Jr. Foundation

Since its founding in 1930, the Macy Foundation has been dedicated to improving the health of the public. For several decades it has done that by promoting innovations in the education of health professionals with the growing realization that educational reform is an integral part of improving our nation’s healthcare system.


The mission of the Macy Foundation, individually and with partners, has been focused on advancing the health professional workforce prepared to work in and lead the future system in order to sustain healthcare reform. The Macy Foundation objectives and principles for funding align with the SRH Workforce Summit goals:

- Demonstrate or encourage interprofessional education and teamwork among health care professionals;
- Provide new curriculum content for health professional education, including patient safety, quality improvement, systems performance and professionalism;
- Develop new models for clinical education, including graduate medical education reform;
- Increase faculty skills in health professions education with a special emphasis on the career development of underrepresented minorities; and
- Improve education for the care of underserved populations, with an emphasis on primary care.

The Macy Foundation serves as both an engaged participant in the national discussion around the role of health professions education in the implementation of healthcare reform as well as a funder of projects at the intersection of health professions education and healthcare delivery. For example, the Macy Foundation has collaborated with the Institute of Medicine on two reports (summarized in this Briefing Document) related to health professional education:

- The 2009 Lifelong Learning report which recommends reform and transformation of post-graduate education in the health professions, and
- The 2010 report on "Who Will Provide Primary Care and How Will They Be Trained" (mostly focused on medicine and nursing).
- In both reports, recommendations apply to the transformation of health professional education by aligning education, practice and credentialing generally and specifically for population and gender-based health based on national and international guidelines.

7.4 John A. Hartford Foundation

Since 1985, the John A. Hartford Foundation authorized nearly $425 million in grants to improve the geriatric skills of current and future health professionals and redesign health care delivery. Foundation grants currently support over 100 programs that span the spectrum of academic and clinical training.


Grants are made in two priority areas: *Academic Geriatrics and Training* for physicians, nurses and social workers; and *Integrating and Improving Services* needed by elders and
their effectiveness with an emphasis is on nationally replicable models. 
http://www.jhartfound.org/grants-strategy/integrating-improving-services/, 
(testing innovations), http://www.jhartfound.org/grants/808/ (evaluating team models)

7.5 Robert Wood Johnson Foundation

Established in 1936, the Robert Wood Johnson Foundation is now the largest philanthropy 

Four programmatic areas of RWJF Funding ( http://www.rwjf.org/en/about-rwjf/program-areas.html ) include:
- Reversing the childhood obesity epidemic by 2015
- Ensuring stable, affordable healthcare coverage for all Americans by 2020
- Support innovation to accelerate progress and create transformative change
- Build a diverse, skilled health workforce ready to address national health, cost and quality challenges

As part of the Human Capital Program ( http://www.rwjf.org/en/about-rwjf/program-areas/human-capital.html ), RWJF has been the leader of a number of important initiatives to strengthen the healthcare workforce ( http://www.rwjf.org/content/dam/files/file-queue/RWJF_HCBrochureForWeb.pdf ). The Programs of the Human Capital portfolio support the preparation of a diverse and well-trained leadership and workforce to meet the nation’s current and future healthcare needs; see more detail at http://www.rwjf.org/content/dam/files/rwjf-web-files/Framing-Strategy/HumanCapitalFramingDoc.pdf.

**Leadership Development** programs prepare health care professionals for success in a complex and changing health environment and enable them to lead systemic change http://www.rwjfleaders.org/. The following are select programs related to leadership development in nursing, medicine and public health as well as the first clinical leadership development initiative:
- RWJF Clinical Scholars http://rwjcsp.unc.edu/
- RWJF Community Health Leaders www.communityhealthleaders.org/
- RWJF Executive Nurse Fellows www.executivenursefellows.org/
- RWJF Nurse Faculty Scholars www.nursefacultyscholars.org/
- RWJF Nursing and Health Policy Collaborative at the University of New Mexico www.nursinghealthpolicy.org/
- RWJF Physician Faculty Scholars http://rwjfpfsp.stanford.edu/
- Ladder to Leadership: Developing the Next Generation of Community Health Leaders www.laddertoleadership.org/

**Medical, Nursing, Dental and Public Health Workforce** programs develop workers and innovations to better provide patient-centered care and address the complex challenges facing our health and the health care system. RWJF workforce initiatives aim to identify and develop innovations and policies to make health systems work better. For example,

- **The Primary Care Team: Learning from Effective Ambulatory Practices (LEAP)** initiative will identify changes in policy, workforce, culture, education, and training related to primary care that can improve the way practices function. The program will study up to 30 high-functioning primary care practices to learn about what they do to maximize the contributions of health professionals and other staff. Policies that affect nursing, primary care, interprofessional collaboration in education
and in providing care, public health, and oral health will be specifically addressed. 

- **The Public Health Nursing** initiative will analyze the public health nursing workforce to determine how many public health nurses there are, where they are, what they are doing, and how the current changes due to health reform and the economic downturn are affecting them. 

- **Nursing** is a critical component of RWJF’s mission; many of the RWJF’s nursing programs support recommendations from the *Institute of Medicine’s (IOM) report on The Future of Nursing: Leading Change, Advancing Health* which provides a blueprint for transforming the nursing profession to improve health care and meet the needs of diverse populations. These recommendations are being implemented through *The Future of Nursing: Campaign for Action*, a collaboration between RWJF and AARP (http://www.championnursing.org/)

The Human Capital Program staff can be found at this link: 
8. Related Reports (not summarized)


A Review of the HHS Family Planning Program provides a broad evaluation of the Title X family planning program since its establishment in 1970. The program successfully provides family planning services to its target audience of low-income individuals, but there is room for improvement. While the program’s core goals are apparent, a secondary set of changing priorities has emerged without a clear, evidence-based strategic process. Also, funding for the program has increased in actual dollars, but has not kept pace with inflation or increased costs. Several aspects of the program's structure could be improved to increase the ability of Title X to meet the needs of its target population. At the same time, the extent to which the program meets those needs cannot be assessed without a greater capacity for long-term data collection. The IOM Committee reviewing the Program recommends several specific steps to enhance the management and improve the quality of the program, as well as to demonstrate its direct contribution to important end results, such as reducing rates of unintended pregnancy, cervical cancer, and infertility, and will guide the Office of Family Planning toward improving the effectiveness of the program. http://www.nap.edu/catalog.php?record_id=12585.

IOM Standing Committee on Family Planning (2012).
http://www.iom.edu/Activities/Women/FamilyPlanning.aspx

The IOM convened a standing committee for the Department of Health and Human Services' Office of Family Planning (OFP) to follow up on issues addressed in the 2009 IOM report, A Review of the HHS Family Planning Program: Mission, Management, and Measurement of Results, as well as identify emerging issues in this field. The standing committee will 1) provide a forum for discussion of scientific, workforce, health services, and education issues relevant to family planning; 2) maintain surveillance of the field and discuss planning and program development efforts; 3) provide a public venue for communication among government, the academic community, and community clinics as well as other relevant stakeholders; and 4) as needed, will be involved in the planning, development, and oversight of related ad hoc activities undertaken by separately appointed committees operating under its auspices.

Commentary: Support Title X and Family Planning by members of the IOM Standing Committee on Family Planning (Chewning, Leeman, Brown, Clayton, 2012) http://iom.edu/Global/Perspectives/2012/SupportTitleX.aspx?page=1

Fact Sheets on the impact of Title X programs from the National Family Planning & Reproductive Health Association http://www.nationalfamilyplanning.org/page.aspx?pid=477


The Institute of Medicine report, The Future of Nursing: Leading Change, Advancing Health, is a thorough examination of how nurses’ roles, responsibilities and education should change to meet the needs of an aging, increasingly diverse population and to respond to a complex, evolving health care system. The recommendations in the report focus on the critical intersection between the health needs of patients across the lifespan and the readiness of the nursing workforce. These recommendations are intended to support efforts to improve health care for all Americans by enhancing nurses’ contributions to the delivery of care.


8.3 Clinical Preventive Services for Women—Closing the Gap, IOM 2010.

http://www.nap.edu/catalog.php?record_id=13181

There has been a recent resurgence of interest in women’s health as evidenced by several federal and international policy-shaping reports that will impact women’s health services. These reports include the 2010 Affordable Care Act (ACA), the formation of the National Prevention Council and Strategy, the World Health Organization strategic plan for 2010-2015, and the 2011 IOM report on Clinical Preventive Services for Women.

The ACA, the National Prevention Strategy, and the expanded recommendations for women’s preventive services are groundbreaking policies, which if enacted would profoundly promote and improve women’s health and close gap in health inequities. The National Prevention Strategy document calls for elimination of health disparities; and prioritizes reproductive and sexual health, injury and violence free living and health promotion strategies. The IOM report includes recommendations for preventive services targeting national health goals for women including prevention of chronic health conditions as well as the prevention of infant mortality and unintended pregnancy but does not include specific health system recommendations.

Clinical Preventive Services for Women reviews the preventive services that are important to women’s health and well-being. It recommends that eight preventive health services for women be added to the services that health plans will cover at no cost. The recommendations are based on a review of existing guidelines and an assessment of the evidence on the effectiveness of different preventive services. The services include improved screening for cervical cancer, sexually transmitted infections, and gestational diabetes; a fuller range of contraceptive education, counseling, methods, and services; services for pregnant women; at least one well-woman preventive care visit annually; and screening and counseling for interpersonal and domestic violence, among others.

Clinical Preventive Services for Women provided the evidence and outcomes that lead to the DHHS adoption of the additional Guidelines for Women’s Preventive Services in August 2012.
8.4 Department of Veteran Affairs Patient Aligned Care Teams (PACT) Model, 2010.

The Office of Patient Care Services, Primary Care Program Office, is undertaking a new initiative to implement a patient-centered medical home (PCMH) model at all VHA Primary Care sites which is referred to as Patient Aligned Care Teams (PACT). This initiative supports VHA’s Universal Health Care Services Plan to redesign VHA healthcare delivery through increasing access, coordination, communication, and continuity of care. PACT provides accessible, coordinated, comprehensive, patient-centered care, and is managed by primary care providers with the active involvement of other clinical and non-clinical staff. PACT allows patients to have a more active role in their health care and is associated with increased quality improvement, patient satisfaction, and a decrease in hospital costs due to fewer hospital visits and readmissions. The Primary Care Program Office has developed a variety of tools to assist Primary Care staff with the transformation process towards becoming patient-centered medical homes. http://www.va.gov/primarycare/pcmh/

More information about the implementation of the VA PACT Program:
http://vascheduling.challenge.gov/updates/651
http://scienceofcaring.ucsf.edu/future-nursing/training-nurse-practitioners-and-physicians-next-generation-primary-care (A PACT model combined with an interprofessional education program)
http://www.va.gov/PrimaryCare/pap/ (PA program)

8.5 For the Public’s Health: Investing in a Healthier Future, IOM 2012.

http://www.nap.edu/catalog.php?record_id=13268#description

The Robert Wood Johnson Foundation asked the Institute of Medicine (IOM) to examine three topics in relation to public health: measurement, the law, and funding. IOM prepared a three report series—one report on each topic—that contains actionable recommendations for public health agencies and other stakeholders with roles in the health of the U.S. population. For the Public’s Health: Investing in a Healthier Future, the final book in the series, assesses the financial challenges facing the governmental public health infrastructure. The book provides recommendations about what is needed for stable and sustainable funding, and for its optimal use by public health agencies. Building on the other two volumes in the series, this book makes the argument that adequate and sustainable funding for public health is necessary to enable public health departments across the country to inform and mobilize action on the determinants of health, to play other key roles in protecting and promoting health, and to prepare for a range of potential threats to population health.