Women’s Health in Interprofessional Education and Collaborative Care
June 26, 2018 | Washington, DC

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## Table of Contents

Table of Contents ................................................................. 2
Committee Members and Attendees ........................................ 3
Women’s Health in Interprofessional Education and Collaborative Care Report
  Introduction and Background .............................................. 4
  The Convening .................................................................. 5
  Dissemination and References .......................................... 6
Convening Summary .............................................................. 8
  Breakout Session Report and Logic Models ....................... 8

  Cross-cutting Issues .......................................................... 9
  Instructional Resources ..................................................... 9
  Acknowledgements ......................................................... 10
List of Attachments ............................................................... 11
  Attachment A: Survey ....................................................... 12
  Attachment B: Convening Breakout Session Reports and Logic Models .................................. 28
  Attachment C: Instructional Resources ............................... 39
  Attachment D: Women’s Health Resources ......................... 54
  Attachment E: Women’s Oral Health Paradigm for a New Millennium ................................ 55
  Attachment F: Core Functions of Public Health and How They Relate to the 10 Essential Services ......................................................... 56
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Women’s Health in Interprofessional Education and Collaborative Care


Introduction

The inclusion of women’s health issues among our nation’s health priorities did not occur overnight. It has been in the recent past that the federal government has recognized women’s health as an issue that merits special attention and resources in both national and global health priorities. This convening identified conditions and solutions needed to achieve curriculum objectives that promote equitable good health and benefits for women across a life span.

Background

Academic communities are changing their curricula to provide personalized medicine and patient-centered and collaborative care that will improve patient satisfaction and, ultimately, health outcomes. Interprofessional education (IPE) is a catalyst for changes in health education throughout the United States and globally. These changes involve academic preparation, patient diagnostics, and coordinated delivery of care by multi-disciplinary teams. At the same time, sex-differences research is increasing the body of knowledge related to women’s health and gender differences in disease processes and health outcomes.

The national imperative for IPE, interprofessional practice and collaborative care provided an opportunity for women leaders across five health disciplines to come together to identify curricular gaps in women’s health and develop cross-disciplinary interventions and patient-centered care strategies for women’s health across the lifespan. Following is a description of the meeting and the preliminary results.
The Convening

The American Dental Education Association (ADEA) and the Office of Research on Women’s Health co-sponsored a convening titled “Women’s Health in Interprofessional Education and Collaborative Care” on June 26 at the ADEA headquarters in Washington, DC. The one-day meeting was organized using web-based technology and leadership teams representing five clinical disciplines: medicine, dentistry, nursing, pharmacy and public health. Four of the disciplines—medicine, dentistry, nursing and pharmacy—had prior Women’s Health Curriculum Study Reports funded by the National Institutes of Health (NIH) and the Health Resources and Services Administration (HRSA). These reports and data from subsequent relevant research provided the evidence base for planning and deliberations.1–6

A professional facilitator coordinated the five teams ahead of the meeting using virtual technology and a logic model format. Each discipline team completed an online survey that identified specific gaps in IPE content related to women’s health. The survey structure was consistent with disease and other categories used in the NIH/HRSA women’s health curriculum surveys and reports.2–4

The five teams (four members each except for pharmacy, which had five members) then met for one day in working groups/team sessions with three objectives:

A. Identify IPE strategies for curriculum changes in the delivery of collaborative care.
B. Produce a logic model plan for curriculum development, implementation and evaluation.
C. Develop a paradigm for curriculum development for equitable good health and patient-centered care for women across the life span.

The teams used a logic model tool to develop interprofessional approaches that identified (1) strategies (priority, rational, action), (2) inputs (what is invested), (3) outputs (what are target audiences or population groups), and (4) outcomes/impact (incremental events/changes realized as the result of outputs). Team leaders (or designees) presented their group reports to all attendees.
Dissemination

The convening report and logic model plans and strategies for medicine, dentistry, nursing, pharmacy and public health will be widely disseminated electronically to health and allied professions schools and organizations to use in curriculum development, collaborative care, experiential treatment and learning.

References


Women’s Health in Interprofessional Education and Collaborative Care

Convening Summary

Women’s Health in Interprofessional Education and Collaborative Care Survey Report

Although the survey sample was small, there appeared to be curriculum content areas worthy of continued review across the 5 disciplines:

- Sexual and Reproductive Function
- Etiology, Prevalence, Course Treatment, and Prevention
- Impact of Use of Medications

The top three (3) data sources used as teaching resources to advance women’s health curricula: MedEd Portal, Professional Journals, NIH reports.

Breakout Session Reports and Logic Models

Outcomes are expected to be realized in the implementation strategies developed in the team group sessions.

Anticipated long-term or distal outcomes from implementation of collaborative care in women’s health across the health professions include:

- Health policies developed that promote women’s health; improve health of children and families; extend lifespan of women.
- Women/sex/gender incorporated into all aspects of precision health, access to care (physical sites and insurance coverage) and legislative equity.
- Gap closed between women who are “healthy” and “unhealthy.”
- Women’s vitality increased throughout the lifespan.
- Issues raised related to health inequity, racism in women’s health, discriminatory primary care, and access are addressed by academic leadership and practitioners.
- Awareness raised of environmental impacts on women’s health.
- Women empowered to make informed decisions about their health and health care.
Funding increased to support research on women’s health and interprofessional collaborative primary care models.

Cross-cutting Issues

Cross-cutting issues for interprofessional collaboration that emerged during group discussions included:

~ Opioid crisis
~ LGBT Health
~ Sexually transmitted diseases
~ Marketing of drugs for women
~ Marketing of drugs for minorities
~ Legal implications for disease control
~ Ethical implications for health professionals
~ Breast feeding and oral health
~ The nurse practitioner in the health team
~ Obesity and population health
~ Gender explicit bias

Instructional Resources

References from articles, reports, reading relevant to women’s health and sex and gender health that support an interprofessional framework for curriculum development and collaborative care are attached to the report.

Paradigms for women’s health in curriculum development and implementation are included in Instructional Resources that were submitted by attendees.
Acknowledgements

The Women’s Health in Interprofessional Education and Collaborative Care (WH/IPE/CC) convening was sponsored by the National Institutes of Health Office of Research on Women’s Health and the American Dental Education Association. Women’s Health Curriculum Study Reports were funded by the National Institutes of Health and Health Resources and Services Administration (HRSA).[2-5] provided the evidence base for planning and deliberations. Virtual planning was possible through efforts of five teams and team leaders: Dr. Sheila Price (Dentistry); Dr. Marjorie Jenkins (Medicine); Ms. Kathy McGuinn (Nursing); Dr. Shareen El-Ibiary (Pharmacy); Dr. Lois Cohen (Public Health). Instructional resources, included in the report, are submissions from the members of the five teams. A special note of appreciation goes to consultant, Dr. Joseph West; ADEA staff members: Ms. Susan Kimner, Mc. Linda Mabrey and to Dr. Donna Grant-Mills who served as program moderator and Dr. Wendy S. Hupp for the women’s health Google search.

Richard W. Valachovic, D.M.D., M.P.H.

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## Attachments

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<td>Women’s Health in IPE and Collaborative Care Survey</td>
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<tr>
<td>B</td>
<td>Convening Breakout Session Reports and Logic Models</td>
</tr>
<tr>
<td>C</td>
<td>Women’s Health in IPE and Collaborative Care Instructional Materials</td>
</tr>
<tr>
<td>D</td>
<td>Women’s Health Resources 2018 - Google search</td>
</tr>
<tr>
<td>E</td>
<td>Women’s Oral Health Paradigm for New Millennium</td>
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<td>F</td>
<td>Core Functions of Public Health and How They Relate to the 10 Essential Services</td>
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Women's Health in Interprofessional Education and Collaborative Care

Women's Health IPE and Collaborative Care Survey

INTRODUCTION

In preparation for a June 26, 2018 convening of twenty leaders across five disciplines Dentistry, Medicine, Nursing, Pharmacy and Public Health a survey on Women's Health interprofessional (IPE) curriculum and Collaborative Care was prepared. The survey focused on the following Objectives:

A. Identify interprofessional (IPE) strategies for curriculum changes in the delivery of coordinated care.
B. Produce a logic model plan for curriculum development, implementation and evaluation.
C. Develop a paradigm for curriculum development for equitable good health and patient centered care for women across a life span.

METHODOLOGY

There were two sections to the survey. Section One asked leaders to respond to questions concerning "specific gaps" in interprofessional (IPE) curriculum for each Discipline as it pertains to the Objectives listed above. In this Section, respondents had four questions:

1. Please select the gaps in common content areas for IPE in women's health curricula for your discipline?
2. Please select below the gaps in common content areas for Collaborative Care in women's health curricula for your discipline?
3. Please select below the gaps in content areas for web-based tools, interprofessional simulation, or interactive media to enhance Collaborative Care in women's health across the health professions for your discipline?
4. Please select below the content areas where your discipline should focus for creating IPE or Collaborative service learning electives, or tools, in women's health curricula?
Section Two asked leaders to respond to questions concerning "specific strategies" in interprofessional (IPE) curriculum for each Discipline as it pertains to the Objectives listed above.

In this Section, respondents had eight questions:

1. Of the list below, identify the top 3 choices that your discipline should focus on to facilitate inter-professional teams for IPE in women's health curricula?
2. Of the list below, identify the top 3 choices that your discipline should focus on to facilitate inter-professional teams for Collaborative Care in women's health curricula?
3. Of the list below, identify the top 3 choices for managing changes for wider faculty and staff engagement or drawing on students' interests and experiences to advance women's health curricula across the health professions?
4. Of the list below, identify the top 3 choices for providing opportunities for research and interventions for Collaborative Care in women's health curricula across the health professions?
5. Of the list below, identify the top 3 data sources used for compiling teaching resources to advance women's health curricula across the health professions?
6. Of the list below, identify the top 3 choices for connecting local work to wider institutional priorities, research and agendas in building capacity for women's health curricula across the health professions?
7. Of the list below, identify the top 3 choices for connecting cross-institutional teams to enable broader engagement for adoption of processes and building capacity for women's health curricula across the health professions?
8. Of the list below, identify the top 3 choices for seeking and developing funding opportunities for women's health curricula across the health professions?

For each of the questions, respondents could select from eight content areas, including more than one, that applied to question. Answers were aggregated across the disciplines such that content areas would reflect a collective perspective on interprofessional development and collaboration for Women's Health and Collaborative Care. The top three content areas with "specific gaps" and "specific strategies" in interprofessional (IPE) curriculum are displayed. The possible choices in Section One "specific gaps" (all questions) and Section Two "specific strategies" (questions: #1, #2, #3, #4, #6, #7 and #8) were:

- Biological Considerations
- Developmental and Social Issues
- Health Behavior/Health Promotion
- Sexual and Reproductive Function
- Etiology, Prevalence, Course Treatment, and Prevention
- Impact of Use of Medications
- History, Physical Examination, and Patient Communication Skills
• Other: Sex as a Biologic Variable; Legal, Ethical and Regulatory

The possible choices Section Two “specific strategies” (question: #5) were:

• Curriculum Survey Reports
• HRSA Reports
• MedEd Portal
• NIH Reports
• Professional Journals
• Research Reports
• Survey Reports
• Other: Developmental social issues; Impact use of medications; history, communication skills;

In addition, for both Sections respondents were asked a series of three open-ended questions related to Outcomes. Outcomes were defined as the intended accomplishments of an interdisciplinary program focused on Women’s Health and Collaborative Care. They included short-term, intermediate, and long-term or distal outcomes. The three open-ended questions were:

I. What are the anticipated short-term outcomes (i.e. learning, awareness, skills) for your discipline resulting from implementation of collaborative care in women's health across the health professions?

II. What are the anticipated intermediate outcomes (i.e. actions, practices, policies) for your discipline resulting from implementation of collaborative care in women's health across the health professions?

III. What are the anticipated long-term or distal outcomes (i.e. conditions, social contexts, environmental impacts) for your discipline resulting from implementation of collaborative care in women's health across the health professions?
Convening Breakout Session Reports and Logic Models

On June 26th, 2018 representatives across five disciplines Dentistry, Medicine, Nursing, Pharmacy and Public met in Washington, DC at ADEA for a one-day convening to provide 2-3 specific and measurable aims related to two objectives:

1. Identify interprofessional (IPE) strategies for curriculum changes in the delivery of coordinated care.
2. Develop a paradigm for curriculum development for equitable good health and patient centered care for women across a life span.

The five Working Groups Breakout Sessions were led by the discipline area Core Group Leaders or volunteer selected by Core Members. Each group also defined a Closing the Gap strategy statement for Objective 1 and Objective 2.

Each group was then asked to complete a Logic Model ¹ related to the same objectives. Each participant was provided with a template for both the specific and measurable aims and logic model two-weeks prior to the meeting. In the Logic Models, we asked participants to also provide a set of Priorities and Action Items/Plan for Collaborative Care across Disciplines.

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Results

SECTION ONE: SPECIFIC GAPS IPE CURRICULUM AND COLLABORATIVE CARE

1. Please select the gaps in common content areas for IPE in women's health curricula for your discipline?

2. Please select below the gaps in content areas for web-based tools, interprofessional simulation, or interactive media to enhance Collaborative Care in women's health across the health professions for your discipline?
3. Please select below the content areas where your discipline should focus for creating IPE or Collaborative service learning electives, or tools, in women's health curricula?

- Etiology, Prevalence, Course Treatment, and Prevention
- History, Physical Examination, and Patient Communication Skills
- Impact of Use of Medications
### SECTION ONE: OUTCOMES (KEY THEMES)

#### I. What are the anticipated short-term outcomes (i.e. learning, awareness, skills) for your discipline resulting from implementation of collaborative care in women’s health across the health professions?

- Better understanding of the roles, responsibilities, and contributions of the various disciplines in advancing women's health.
- Better communication among these disciplines as their work relates to women's health.
- Learning across disciplines to enhance understanding among care providers.
- Knowledge, skills, Learning, awareness regarding women's health.
- Curriculum leaders and learners will be educated on the importance of sex and gender integration on health care outcomes.
- Achievement of competency of the IPEC competencies.
- Recognition of the role of dentistry in advancing women's health, improved attitudes and increased commitment to act.
- Collaborative advancement of primary care women's health.
- Strong analysis and reporting of content common across health professions.
- Creation of a service learning elective connecting women’s health and interdepartmental programs.
- Critical thinking assessments for considerations of women/sex/gender influences.

- Elevate issues in pharmacy such as contraception, menopause, pregnancy and lactation.
- Bring better collaborative models together across different practice settings (community, ambulatory care, hospital, etc.).
- Advance academic presentations, opportunities for continued learning and best practices for dispensing medication to prevent/treat conditions most affecting women, especially where differences in sex and gender often go unrecognized or discussed. Examples would be in treatment of diabetes or osteoporosis where there are "general" treatment strategies and guidelines to treat these conditions, but specific differences affecting sex and gender are not always addressed.
- Encourage multiple professions to work together to care for patients, the likelihood of addressing subtle differences in disease state management would be recognized/discussed ultimately leading to more appropriate prescribing of medications for women's health and related conditions.
- Identify and strengthen women's health network.
- Raise awareness in the pre-clerkship phase, and targeted instruction during the clinical clerkships.
II. What are the anticipated intermediate outcomes (i.e. actions, practices, policies) for your discipline resulting from implementation of collaborative care in women's health across the health professions?

- For each discipline a more active/proactive role in the healthcare of women.
- Develop more holistic care protocols for each discipline where shared techniques and respect for each area's contributions to continuity of care.
- More pharmacists are involved in women's health patient care, and more community pharmacists are using more recent protocols for contraception and emergency contraception.
- Clinical practice guidelines are updated to incorporate evidence-based advances of sex and gender-based differences in risk assessment, diagnosis and treatment between women and men.
- Inclusion of competency in advancing women's health, and effective participation in IPC in the CODA and other accreditation standards to trigger change in health professions education, development of EPAs in women's health across the health professions with explicit articulation of IPE/IPC outcomes.
- Create interprofessional core competencies in women's health. Engage in interprofessional simulation exercises. Establish women's health clerkships and fellowships.
- Inclusion of oral health considerations in IPE/CP across all HC professions via conferences, curricula, and funding/research/collaboration policies.

- Enhanced awareness of the need to evaluate the curriculum and create and deliver content to close or minimize gaps.
- Gain leverage to influence discipline-specific policy changes on local, state, and national level.
- Increase gender-specific and gender-comparative research.
- Generate new knowledge that could open new treatment frontiers and enhance the power of prevention with family-wide impact.
- Advance continuing education programs, workshops, institutes, and research focus groups to educate within each discipline.
- Protocols and algorithms (for medication prescribing/administration/follow-up) that have been created (most often in a hospital setting) should be modified to include "factors" related to women's health.
III. What are the anticipated long-term or distal outcomes (i.e. conditions, social contexts, environmental impacts) for your discipline resulting from implementation of collaborative care in women's health across the health professions?

- Women's Health issues, gender/sex differences becoming a (more) respected voice at the table.
- Improved patient outcomes by collaborative and care delivery.
- Access to contraception and information to prevent unintended pregnancy don't know.
- Health outcomes for women will improve as our understanding of their unique health care needs are better understood.
- Realized improvement in access to care, and patient care outcomes for women, as well as improvements in the well-being and satisfaction of healthcare workers of all sexes and genders.
- Outline general and specialty women's health curriculum across disciplines Secure additional funding for curricula initiatives.
- Women/sex/gender incorporated into all aspects of precision health, access to care (physical sites and insurance coverage) and legislative equity.
- A core curriculum for developing providers in skills, knowledge and values necessary to provide care.
- Through collaborative practice efforts of multiple professions, women's health will become a more regularly discussed topic among patients, health care professions (including pharmacists), and general society.
- Women's health considerations becoming more common place in discussions within the healthcare field leading to more accurate prescribing, administration, and counseling of medications by pharmacists.
- Reshape health care delivery such that dentistry occupies a more central and inclusive role.
- Close the gap between women who are "healthy" and "unhealthy".
- Increase women's vitality throughout the life span.
- Issues related to health inequity, racism in women's health, discriminatory primary care and access are raised and addressed by academic leadership and practitioners.
SECTION TWO: SPECIFIC STRATEGIES IPE CURRICULUM AND COLLABORATIVE CARE

1. Of the list below, identify the top 3 choices that your discipline should focus on to facilitate interprofessional teams for IPE in women's health curricula?

2. Of the list below, identify the top 3 choices that your discipline should focus on to facilitate interprofessional teams for Collaborative Care in women's health curricula?
3. Of the list below, identify the top 3 choices for managing changes for wider faculty and staff engagement or drawing on students' interests and experiences to advance women's health curricula across the health professions?

4. Of the list below, identify the top 3 choices for providing opportunities for research and interventions for Collaborative Care in women's health curricula across the health professions?
5. Of the list below, identify the top 3 data sources used for compiling teaching resources to advance women's health curricula across the health professions?

6. Of the list below, identify the top 3 choices for connecting local work to wider institutional priorities, research and agendas in building capacity for women's health curricula across the health professions?
7. Of the list below, identify the top 3 choices for connecting cross-institutional teams to enable broader engagement for adoption of processes and building capacity for women's health curricula across the health professions?

8. Of the list below, identify the top 3 choices for seeking and developing funding opportunities for women's health curricula across the health professions?
### SECTION TWO: OUTCOMES (KEY THEMES)

#### I. What are the anticipated short-term outcomes (i.e. learning, awareness, skills) for your discipline resulting from implementation of collaborative care in women's health across the health professions?

- Specific Strategies that improve women’s health behaviors on individual and population levels.
- Improved understanding of the roles/responsibilities of the various health professions.
- Improved communications among these professions related to women's health.
- Sex and gender-based health knowledge will be an integrated component throughout health professions education and not a supplement or add-on.
- Develop core EPAs for women's health for each discipline as well as shared ones, to support education and assessment of competency, and tools for their assessment.
- Audit current women’s health curricula Compile teaching resources Engage students in interactive exercises.
- Strategically placed collaborative activities and shared community health care sites.
- Enhanced care in institutionally sponsored IPE settings by students and faculty.

- Advance the strategy for engaging students and post-graduate students in key initiative targeting women's health.
- Create full courses, embedding activities within courses, and offering/encouraging co-curricular participation, students will learn important principles/skills associated with women’s health.
- Develop learning principles for students and post-graduates through experiential coursework, using real world practice settings and applied learning. Heightened recognition of the interrelationship between oral health and overall health in women across the life span.
- Increased interprofessional collaborative initiatives focused on women's health.
II. What are the anticipated intermediate outcomes (i.e. actions, practices, policies) for your discipline resulting from implementation of collaborative care in women's health across the health professions?

- Strategic curriculum changes focused on systemic impact.
- Intentional incorporation of women's health related objectives/cases for existing IPE activities (i.e., TeamSTEPPS cases).
- Incorporation of specific women's health related objectives in other IPE activities (i.e., Hotspotting) to raise awareness to (in particular) the social issues facing women.
- Strategic teaching and delivery of evidence-based differences between men and women implemented in the delivery of patient care with the appreciation of the value of interprofessional teams.
- Changes in accreditation policies across the disciplines to require competencies that advance women's health.
- Incorporate clinical experience Integrate expertise from external departments.
- Advanced CODA standards.
- A strategic shift of health care delivery to provide IPE care focused on women’s health.
- A strategic shift in direction for research, and available funding to include more diversity of approaches, community-based engagement and use of technologies.
- A strategic shift in direction for research, and available funding to include qualitative research, and narrative techniques using social media, mobile and video.

- A strategic focus on IPE strategies across professions to increase the "quantity" and "quality" of content that is taught in the women's health area.
- Strategies to design curricula to advance women's health initiatives covering a diversity of teaching mediums and modes which vary in length and complexity. Mediums may include online modules, didactic lectures, live presentations/workshops, professional video productions, focus groups, simulation, among others.
- Strategically developed messaging and best practice guidelines related to women’s health and collaborative care for staff in practice, including online trainings.
III. What are the anticipated long-term or distal outcomes (i.e. conditions, social contexts, environmental impacts) for your discipline resulting from implementation of collaborative care in women's health across the health professions?

- Health policies that promote women's health; improved health of children and families; extended lifespan of women.
- Improvement in the overall health of women through IP health promotion, etc.
- Raised awareness of environmental impacts on women's health.
- Women, men, families and communities benefit from integrated medical care which incorporates evidence of differences in patients biological and social needs.
- Increased funding to support research on women's health and interprofessional collaborative primary care models that include dentistry, medicine, public health, pharmacy and nursing; integrated strategies in research.
- Establish an elective in interprofessional education.
- Generate a progressive complexity of tasks in teaching content.
- Educational/curricular reform, inclusion of oral health in all health professional activities and curriculum, and shared learning and clinical training activities.

- A recognized curriculum that includes content with defined outcomes that helps direct the quality of care for female patients.
- Heightened level of patient understanding and compliance with regard to preventive strategies and treatment recommendations.
- Reverse trends in health issues impacting women such as heart disease, cancer, etc.
- Empower women to make informed decisions about their health and health care.
Convening Breakout Session Reports and Logic Models
**Objective 1:** Identify interprofessional (IPE) strategies for curriculum changes in the delivery of coordinated care.

**AIM 1:** To educate the public and other health professionals about key oral health indicators and practice guidelines.

**AIM 2:** To transform health professionals' licensure and recertification to support collaborative care that includes oral health.

**AIM 3:** Outcomes and support of the triple aims for healthcare improvement drive incentives.

**Closing the Gap:** Oral health is a vital sign for every health visit for every person.

**Objective 2:** Develop a paradigm for curriculum development for equitable good health and patient-centered care for women across a life span.

**AIM 1:** Support research to develop the evidence base for personalized oral health care for women.

**AIM 2:** Incorporate mandated oral health education for health profession students and oral health professionals for personalized coordinated care for women.

**AIM 3:** Remove structural barriers to facilitate implementation of evidence-based personalized coordinated care for women.

**Closing the Gaps:** Equitable good health and patient-centered coordinated care for women across a life span is based on the best available and evolving scientific evidence using strategies designed to effect change in persons, practitioners, and systems.
**Logic Model Tool: Dentistry**

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<th>Outputs (What we do and are target audience or population/group)</th>
<th>Outcomes – Impact (The incremental events/changes realized as a result of the Outputs)</th>
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<td>c) Federal and others</td>
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<td>Enhance students’ academic support</td>
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<td>Time for curriculum development</td>
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<td>Technology Strategically</td>
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<td>1) Replace un-professional educational activities with interprofessional education</td>
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<td>Leverage accreditation standards to facilitate change</td>
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<tr>
<td><strong>Target group</strong></td>
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<tr>
<td>Patients/persons</td>
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<tr>
<td>Community</td>
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<tr>
<td>Healthcare providers</td>
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<tr>
<td>New graduates</td>
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<tr>
<td>Educators/administrators</td>
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<tr>
<td>License agents</td>
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<tr>
<td>Legislators</td>
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<tr>
<td>Accreditors</td>
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<tr>
<td>Third party payers</td>
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<tr>
<td>Scientific investigators</td>
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<tr>
<td>Health professions organization including Allied Health</td>
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<tr>
<td>Justice system</td>
<td></td>
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<tr>
<td>Philanthropic organizations</td>
<td></td>
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<tr>
<td>Funding agencies (NIH, HRSA, etc.)</td>
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</table>

**Assumptions:** a) Education about oral health is missing in most health professions; b) Education about women’s health is missing in most health professions; c) Practicing health professionals need updates in their knowledge about women’s health and oral health; d) Funding mechanism are barriers to integration of oral health to overall health; e) Patients are powerful partners to facilitate change; f) Policy can drive change; g) Evidence based data can support need for change; h) Oral health is integral to quality and quantity of life; i) Oral health is a global issue; j) Impact of women’s health is not only on women but families and communities (Healthy women equal healthy families)

**External Factors:** a) Negative impact of traditional health system and incentives; b) Cultural barriers across health professions; c) Limited resources
**Objective 1:** Identify interprofessional (IPE) strategies for curriculum changes in the delivery of coordinated care.

**Closing the Gap:**
Patient centered care fostered by communication and information sharing by all necessary participants to optimize the effectiveness, safety, efficiency, and experience of healthcare.

**AIM 1:** Understand the role and scope of pharmacists and their value to the health care team.

**AIM 2:** Integrate pharmacists within all settings and transitions of care.

**AIM 3:** Ensure patients participate in and understand their own health and wellness.

**Objective 2:** Develop a paradigm for curriculum development for equitable good health and patient centered care for women across the life span.

**Closing the Gaps:**
Fully utilize the pharmacist's expertise for medication adherence, dispensing behavior and safety across the continuum of care for women.

**AIM 1:** Pharmacists have ample opportunity to provide expertise to population-based care.

**AIM 2:** Broad functions may be carried out by individuals, systems, and facilities in diverse sectors.

**AIM 3:** Pharmacists establish a pronounced functional capacity in equitable health curriculum development for women across the life span.
**Logic Model Tool: Pharmacy**

<table>
<thead>
<tr>
<th>Inputs (What we invest)</th>
<th>Outputs (What we do and are target audience or population/group)</th>
<th>Outcomes – Impact (The incremental events/changes realized as a result of the Outputs)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tools or resources required</td>
<td>Activities</td>
<td>Intermediate</td>
</tr>
<tr>
<td>- Awareness, Marketing and utilization of existing resources from national meetings, professional orgs, CE opportunities, among others (i.e. websites, modules, videos)</td>
<td>- Create self-assessment tools for IPE and sex and gender specific health;</td>
<td>- Pharmacists play stronger role in care coordination women’s health.</td>
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<tr>
<td></td>
<td>- Identify and collect resources to create a repository for IPE sex and gender;</td>
<td>- Pharmacists play stronger role in cross-collaboration with other disciplines.</td>
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<tr>
<td></td>
<td>- Lavage technology to allow groups to easily navigate the repository to create individualize plans for curriculum and practice development;</td>
<td>Priorities</td>
</tr>
<tr>
<td></td>
<td>- Foundational learners;</td>
<td>1. Pharmacists are a more valued source of factual and anecdotal health data.</td>
</tr>
<tr>
<td></td>
<td>- Graduate learners;</td>
<td>2. Pharmacists assist health planners as they seek to meet community needs.</td>
</tr>
<tr>
<td></td>
<td>- Practitioner learners;</td>
<td></td>
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<tr>
<td></td>
<td>- Accreditation Council for Pharmacy Education (ACPE);</td>
<td></td>
</tr>
<tr>
<td></td>
<td>- PharmD Program Directors and Faculty leads;</td>
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</tr>
</tbody>
</table>

**Assumptions:**
- a) The public health role of the pharmacist is better defined, and broadly recognized.
- b) Pharmacy input is promoted by public health agencies, pharmacy educators or other health care professionals.
- c) Pharmacists have a health knowledge on which to build and be integrated into interprofessional solutions, community health and patient care.

**External Factors:**
- a) Sustaining or segregating of groups responsible for the activities.
- b) Pharmacy Industry and Education Organizations.
- c) Accreditation, Licensing bodies.

**Impact**
- Pharmacists have a role in developing "population-specific" evidence-based disease management programs and protocols.

**ACTION 1:** Recruit or develop a different kind of pharmacy student, faculty or professional aware of interprofessional collaboration.

**ACTION 2:** Include interdisciplinary patient care in Accreditation Council for Pharmacy Education (ACPE) standards and guidelines for accreditation.
**Closing the Gap:**
The system of services including health and related services addressing SDH for the enhancement of individual, communities, and population health.

**AIM 1:** Define for the field process metrics. For example, how many and what kind of services; populations to be engaged and the professions and stakeholders represented (associations, governmental institutions, community organizations).

**AIM 2:** Increase health status (wellness) individual, community, and population with morbidity, mortality and quality of life.

**AIM 3:** Define for the field research agenda to measure optimal health functioning by sex, gender, ETC considering morbidity, mortality, and quality of life.

**Closing the Gaps:**
Personal and community-based services/policies focused on achieving optimal health in individuals, communities, and populations.

**AIM 1:** Build from previous IPE models. For example, HRSA 2013 Women’s Health Curricula: Final Report on Expert Panel Recommendations for Interprofessional Collaboration across the Health Professions.

**AIM 2:** Modify (HRSA) model with the IPEC domains; Values/Ethics for Interprofessional Practice Roles/Responsibilities; Interprofessional Communication; Teams and Teamwork.

**AIM 3:** Learn from global efforts especially developmental efforts in women and children and women’s leadership in government.
**Logic Model Tool: Public Health**

**Inputs (What we invest)**

- Existing data, guidelines and reports;
- Existing curriculum and established foci on sex/gender;
- Women's health (bio)literature, guidelines and established priorities;
- Best in practice volunteers;
- Community-based clinical practices;

**Outputs (What we do and are target audience or population/group)**

- Focus on prevention, care coordination and transitions;
- Complex chronic care, population health management and medication therapy management;
- Breakdown sites of care between health professionals;
- Integration of new models of primary care through oral health, public health, and mental health;
- Collaborative practice;
- Community-based efforts and practices;

**Target group**

- Funders of clinical care prevention;
- Public health administrators;
- Policy makers, stakeholders;
- City, county public health departments;
- Researchers, Community non-profits;
- Accredited bodies;
- School/state – state board of education;

**Outcomes – Impact (The incremental events/changes realized as a result of the Outputs)**

**Intermediate**

- Create an IPE career path for public health and recruit junior faculty;
- Develop a means of recognizing the contributions of the faculty who participate in IPE: tangible and intangible recognition and funding support;

**Priorities**

1. Continue leadership efforts to stimulate interest in teaching including faculty development plans;
2. Advance women’s health/gender focused curriculum activities and research in public health;

**Impact**

- Redesign, the roles and responsibilities for frontline public health workers expanding in primary care;

**ACTION 1:** Clear definitions of the public health components of care coordination addressing health, mental health, and non-care related health social determinants including housing, the availability and adequacy of community resources, and location (e.g., urban vs. rural);

**ACTION 2:** Establish protocol for incorporating competencies within interprofessional education, both formal education and public health experiences, professional associations and groups, professional schools, primary payers of education (HRSA, NIH, Grantmakers);

**Assumptions:** a) Academia and health agencies can also initiate relationships with local pharmacy organizations to provide epidemiological data on prescribing patterns, patterns of illness, and various socioeconomic factors related to prevalent disease states. A community pharmacist can be strategic in assisting health surveys, and in advising people about and referring them to public health services.

**External Factors:** a) Constraining funding timelines and requirements; b) entrenched interests and projects; c) public health factions and splintered groups responsible for the curriculum, learning;
**Objective 1:** Identify interprofessional (IPE) strategies for curriculum changes in the delivery of coordinated care.

**Closing the Gap:**
The provision of health care by providers from different professions in a coordinated manner addressing the needs of patients.

**AIM 1:** Begin Graduate Medical Education (GME) coordinated care interprofessional education demonstrations through role playing and shadowing other professionals.

**AIM 2:** Create and deliver robust faculty and student development in IPE utilizing sex and gender as an expanded approach to achieving personalized care and eliminating biases.

**AIM 3:** Incorporate training and assessment of gender explicit bias in medical school instruction, research, residencies, and continued medical education.

**Objective 2:** Develop a paradigm for curriculum development for equitable good health and patient centered care for women across a life span.

**Closing the Gap:**
Providers share mutual goals, resources, and responsibilities for prevention and treatment in women’s health across the life span.

**AIM 1:** Work towards incorporating IPE competencies in standards for certification, accreditation, licensure, and ethics.

**AIM 2:** Effectively articulate the importance of interprofessional care coordination in for women across the life span.

**AIM 3:** Develop and implement educational programs providing interprofessional training through collaboration between schools of medicine, nursing, dentistry, nutrition, occupational and physical therapy, pharmacy, social work and other health practice disciplines for women’s health across the life span.
**Logic Model Tool: Medicine**

### Inputs (What we invest)
- Repurpose existing structure.
- Funds support working groups.
- Diversity, sex & gender lens.
- IPE: initiative.
- Engage depends on hierarchical structure of leadership.
- Strength accreditation standards.
- Read-made educational materials, templates.
- Intentional advancement and lenders.
- Marketing and communication.

### Outputs (What we do and are target audience or population/group)

#### Activities
- Thread throughout disciplines and IPE activities.
- Develop messaging tool kits based on target audience.

#### Target group
- Influencer key groups (students, faculty, community, leadership).
- Non-profit foundation.
- Hospital CEO: partner to create a profitable business model.
- Activate women's groups-consumers, professionals.

### Outcomes – Impact (The incremental events/changes realized as a result of the Outputs)

#### Intermediate
- Provision of health care by providers from different professions in a coordinated manner addressing the needs of patients across care continuum.
- Providers share mutual goals, resources, and responsibility for patient care.

**Priorities**
1. Place interests of patients and populations at the center of interprofessional health care delivery.
2. List barriers to effective treatment such as health literacy, socioeconomic constraints, and limited access to care.

#### Impact
- Integration of students into interprofessional teams in non-traditional settings and models in the pre-clinical, clinical, or residency years in medicine.

**ACTION 1:** Define in medicine clarity for the term interprofessional (i.e. used to describe clinical practice) versus interdisciplinary (i.e. used to describe the educational process).

**ACTION 2:** Care coordination is an important team-based process for improving the quality and value of health care.

**Assumptions:**
a) Students can be engaged; b) IPE is important to student and professional development; c) Patients will benefit from coordinated care; d) Patients have PCPs and PCPs are engaged with their patients; e) Evidence-based care will speak for itself.

**External Factors:**
a) Constraining funding timelines and requirements; b) entrenched interests and practices; c) medical education factions and splintered groups responsible for the curriculum, learning; d) the new student pools and expectations, generational differences and divergent learning styles; e) business model imperatives in medical school.
## Closing the Gap:
Provision of quality & compassionate care from multiple healthcare professions working together with person, families and communities to achieve expected outcomes.

| AIM 1: | Person and family centered team-based coordinated care aligned with IPE nursing curriculum and instruction. |
| AIM 2: | Addressing social determinants and racial and ethnic disparities impacting women, especially poor women and women of color. |
| AIM 3: | Embracing preventative care including broadened home and community assessments and services for home-based care. |

### AIM 1: Nursing advances the Triple AIM and at all levels asserting perspective and influence in best practices for collaborative patient care.

### AIM 2: Educators and practitioners from the different professions co-create learning experiences, and build knowledge, skills, and attitudes needed for effective nursing and interprofessional collaboration.

### AIM 3: Foster open communication, mutual respect, and shared decision-making amongst care teams focused on women’s health across the life span.
# Logic Model Tool: Nursing

## Inputs (What we invest)
- Funding to support curriculum review and advising;
- Time allotment for diversity training and development;
- Incentives supporting the implementations of changes in pedagogy;
- Funding to support elevation and dissemination of outcomes;
- Mentorship time allocation and credit for Faculty;
- New learning models for new generation of nursing students;
- Better and more technology use in instruction and practice.

## Tools or resources required

<table>
<thead>
<tr>
<th>Activities</th>
<th>Target group</th>
</tr>
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<tbody>
<tr>
<td>Organizing interprofessional groups advocating for advancement of instruction of gender and sex differences for health professionals;</td>
<td>Faculty in Schools of Nursing (Deans, Chairs, Administrative structure);</td>
</tr>
<tr>
<td>Provisions of learning forms (conferences/summit) to advance body of knowledge;</td>
<td>Nursing students;</td>
</tr>
<tr>
<td>Instruction and opportunities for students and colleagues to develop more effective problem-solving skills as a result of working with people with differing points of view;</td>
<td>Medical Students;</td>
</tr>
<tr>
<td>Instruction and opportunities for students and colleagues to improve communication skills;</td>
<td>Physician groups and practices;</td>
</tr>
<tr>
<td>Instruction and opportunities for students and colleagues to learn appropriate responses in high-risk situations such as handoffs or a patient crisis;</td>
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</table>

## Assumptions:
- a) Nurses respect the centrality of patients and families as members of any healthcare team;
- b) Students want opportunities to learn collaboration and teamwork;
- c) Established policy strategies exist in support of interprofessional nursing practices and education.

## Outputs (What we do and are target audience or population/group)

## Outcomes – Impact (The incremental events/changes realized as a result of the Outputs)

### Intermediate
- Contributions of nursing staff and team-based care in helping patients and families achieve health goals are more fully recognized;
- Different styles of communication used by patients, families, and healthcare providers is valued.

### Impact
- Existence of replicable collaborative care models which enhance nursing’s voice, including models for strengthening roles of advanced practice registered nurses (APRNs).

### Priorities
1. Nursing is participating in designing systems supportive of effective teamwork,
2. Nursing influences system solutions focused on effective team functioning and IPE stakeholder engagement,

### Action 1:
Further strategies for identifying and managing best practices in team-based care including better accountabilities,

### Action 2:
Identify, generate, and broadly disseminate IPE resources, technology, and best practices in care coordination for women’s health across the life span.

## External Factors:
Absence of willingness of interprofessional partners to engage and void of collaborative opportunities.
Women's Health Interprofessional Education and Collaborative Care

Instructional Resources

Dentistry

Interprofessional Collaborative Practice: An Oral Health Paradigm for Women

Oral disease is among the most prevalent health problems, and discrepancies that exist regarding the health of women compared with the health of men. Five key concepts for women's oral health using an interprofessional collaborative framework include wellness and prevention, biologic applications, selective disease awareness, behavioral health, and interprofessional health team members' roles. An interprofessional collaborative team approach increases awareness among oral health care providers, along with obstetrician/gynecologists, regarding the significance of oral health during pregnancy. The oral health care provider is central to an interprofessional collaborative framework in identifying victims of intimate partner violence, as most injuries are facial and intimate partner violence exposure results in poor health. Providing interprofessional collaborative models involving both oral and overall health care professionals enable patient-centered care with patients becoming more empowered in decision making.

Interprofessional Collaborative Practice: How Could Dentistry Participate?

There is a remarkable phenomenon occurring among health professionals: the development of ongoing, routine collaboration, both in educating the next generation of providers and in delivering care. These new approaches, commonly referred to as interprofessional education and interprofessional collaborative practice, have been introduced into academic health settings and delivery systems throughout the U.S. and the rest of the world; however, the full integration of dentistry in health care teams remains unrealized. In academic settings, dentistry has found ways to collaborate with the other health professions, but most practicing dentists still find themselves on the margins of new models of care delivery. This article provides a perspective on the history and context of the evolution of collaborative approaches to health care and proposes ways in which dentistry can participate more fully in the future.

A Framework for Web-Based Interprofessional Education for Midwifery and Medical Students.

Scheduling interprofessional team-based activities for health sciences students who are geographically dispersed, with divergent and often competing schedules, can be challenging.
The use of Web-based technologies such as 3-dimensional (3D) virtual learning environments in interprofessional education is a relatively new phenomenon, which offers promise in helping students come together in online teams when face-to-face encounters are not possible. The purpose of this article is to present the experience of a nurse-midwifery education program in a Southeastern US university in delivering Web-based interprofessional education for nurse-midwifery and third-year medical students utilizing the Virtual Community Clinic Learning Environment (VCCLE). The VCCLE is a 3D, Web-based, asynchronous, immersive clinic environment into which students enter to meet and interact with instructor-controlled virtual patient and virtual preceptor avatars and then move through a classic diagnostic sequence in arriving at a plan of care for women throughout the lifespan. By participating in the problem-based management of virtual patients within the VCCLE, students learn both clinical competencies and competencies for interprofessional collaborative practice, as described by the Interprofessional Education Collaborative Core Competencies for Interprofessional Collaborative Practice. This article is part of a special series of articles that address midwifery innovations in clinical practice, education, interprofessional collaboration, health policy, and global health.

**Promoting oral health as part of an interprofessional community-based women’s health event.**


Heart disease is the number one killer of women, and studies have shown connections between cardiovascular and oral health. However, interprofessional community-based participatory initiatives promoting women's oral health have received little research attention. This study evaluated the effectiveness of personalized oral health education (POHE) during a free one-day interprofessional women's health promotion event. The objectives were to 1) assess the participants' knowledge about the connection between oral health and heart disease; 2) disseminate information about oral-systemic linkages; 3) encourage comprehensive dental examinations; and 4) evaluate POHE outcomes. West Virginia University School of Dentistry faculty and students delivered POHE to the participants. These POHE instructors were calibrated with a standardized script regarding periodontal disease, health impact of tobacco, xerostomia-inducing medications, and oral hygiene instruction. Immediately prior to and following each POHE session, all the participants (N=165; 100 percent response rate) completed a number-coded questionnaire. The findings showed that the participants' knowledge of oral-systemic health linkages had increased following the POHE. The respondents received oral health kits and were offered discount vouchers toward the cost of a comprehensive oral examination at the dental school. This replicable model may prove useful to other dental schools in promoting women's oral health.

**Sex and gender in medical education: a national student survey**


Gender- and sex-specific medicine is defined as the practice of medicine based on the understanding that biology (dictated by sex chromosomes) and social roles (gender) are important in and have implications for prevention, screening, diagnosis, and treatment in men and women. In light of the many ways that sex and gender influence disease presentation and patient management, there have been various initiatives to improve the integration of these topics into medical education curriculum. Although certain schools may include the topics, their impact on the student body's knowledge has not been as fully studied. By studying the opinions
of US allopathic and osteopathic-enrolled students on the extent to which their schools address these topics and their understanding of these topics, this study examined the role of gender specific medicine in the US medical school curriculum.

Nursing

Making Interprofessional Education Work: The Strategic Roles of the Academy

Faculties (i.e., schools) of medicine along with their sister health discipline faculties can be important organizational vehicles to promote, cultivate, and direct interprofessional education (IPE). The authors present information they gathered in 2007 about five Canadian IPE programs to identify key factors facilitating transformational change within institutional settings toward successful IPE, including (1) how successful programs start, (2) the ways successful programs influence academia to bias toward change, and (3) the ways academia supports and perpetuates the success of programs. Initially, they examine evidence regarding key factors that facilitate IPE implementation, which include (1) common vision, values, and goal sharing, (2) opportunities for collaborative work in practice and learning, (3) professional development of faculty members, (4) individuals who are champions of IPE in practice and in organizational leadership, and (5) attention to sustainability. Subsequently, they review literature-based insights regarding barriers and challenges in IPE that must be addressed for success, including barriers and challenges (1) between professional practices, (2) between academia and the professions, and (3) between individuals and faculty members; they also discuss the social context of the participants and institutions. The authors conclude by recommending what is needed for institutions to entrench IPE into core education at three levels: micro (what individuals in the faculty can do); meso (what a faculty can promote); and macro (how academic institutions can exert its influence in the health education and practice system).


The delivery of effective, high-quality patient care is a complex activity. It demands health and social care professionals collaborate in an effective manner. Research continues to suggest that collaboration between these professionals can be problematic. Interprofessional education (IPE) offers a possible way to improve interprofessional collaboration and patient care. Objectives To assess the effectiveness of IPE interventions compared to separate, profession-specific education interventions; and to assess the effectiveness of IPE interventions compared to no education intervention. Search methods for this update we searched the Cochrane Effective Practice and Organization of Care Group specialized register, MEDLINE and CINAHL, for the years 2006 to 2011. We also hand-searched the Journal of Interprofessional Care (2006 to 2011), reference lists of all included studies, the proceedings of leading IPE conferences, and websites of IPE organizations. Selection criteria Randomized controlled trials (RCTs), controlled before and after (CBA) studies and interrupted time series (ITS) studies of IPE interventions that reported objectively measured or self-reported (validated instrument) patient/client or healthcare process outcomes. Data collection and analysis At least two review authors independently assessed the eligibility of potentially relevant studies. For included studies, at least two review authors extracted data and assessed study quality. A meta-analysis of study outcomes was not
possible due to heterogeneity in study designs and outcome measures. Consequently, the results are presented in a narrative format.

**Women’s Health Education Initiatives: Why Have They Stalled?**


Since the U.S. Congress first requested an assessment of women’s health content in medical school curricula ten years ago, surveys indicate at least a two-fold increase in the number of schools with a women’s health curriculum and no change in the number that offer a women’s health clinical elective or rotation. Despite a marked increase in the number of schools with an office or program responsible for integration of women’s health and gender-specific content into curricula, change has been modest. Reasons for this slow progress include uncertainty about the domain of women’s health and what should be included in a curriculum, a lack of practical guidelines for implementation, and institutional resistance to change. The dominant factors that will influence future curriculum development are the increasing scientific knowledge base on sex and gender differences and the emerging scientific field of sex-based biology, both of which have potential to benefit the health of women. Evidence-based data on significant sex and gender differences will provide compelling reasons for schools to integrate this information into curricula, and new educational initiatives must further develop educational models to help implement change. As women’s health becomes synonymous with the term “sex and gender differences,” the challenge to schools is to address equally in their curricula those unique aspects of women’s health that were part of the original intent of the congressional mandate.

**What Do Medical Schools Teach about Women’s Health and Gender Differences?**


To examine the curricula of U.S. medical schools to assess the inclusion of women’s health and gender-specific information and identify institutional characteristics associated with this content. Method Using data from the Association of American Medical Colleges’ Curriculum Management and Information Tool (CurrMIT), in November 2003 to February 2004 the authors performed a curriculum search of schools that entered course/clerkships in CurrMIT to identify interdisciplinary women’s health or gender-specific courses/clerkships. A subset of schools that entered comprehensive information in CurrMIT was searched for a specified list of women’s health topics and or gender specific content on any topic. Statistical analyses were performed to assess the relationship between frequency of topics and school characteristics. Results The authors identified 95 schools that entered related courses/clerkships. Ten courses/clerkships at nine schools met criteria for an interdisciplinary women’s health course/clerkship. In the subset of 60 schools with comprehensive CurrMIT information, 18 specified women’s health topics were identified, as well as 24 topics on gender-specific content, for a total of 42 topics. The number of topics taught ranged from zero to 26 (mean 11). More than 50% of these schools taught 11 of the 18 specified topics, while fewer than 30% included gender-specific topics. There was no association in bivariate analysis between the mean number of topics taught and schools’ characteristics; however, a women’s health program (p. 01) and female dean (p. 06) were positively associated in a regression model. Conclusions Few schools offer interdisciplinary women’s health courses/clerkships or include gender-specific information in their curricula. A designated women’s health program may increase this content in schools’ curricula.
Given the interdisciplinary quality of women’s health, a unique collection of resources is required to provide a practical, evidence-based presentation of the relevant topics. While some students and residents have sought more intensive women’s health education from special electives and fellowships, most physicians will not receive their primary instruction about women’s health from a specially dedicated course. Therefore, teachers in a broad variety of settings from ambulatory precepting sites to basic science courses will be responsible for planning educational experiences that will integrate women’s health issues. This paper provides reviews of 19 teaching tools about women’s health ranging from general curricula to books, videos, and CD-ROMs that can be used by educators and learners throughout the continuum of medical education. Acad. Med. 2000;75:1087–1094.

A patient-centered model of care has profound implications for the way that care is planned, delivered, and evaluated. Although most leaders in healthcare organizations today embrace the basic tenets of a patient-centered philosophy, they often find that moving toward a patient-centered model requires an unanticipated level of commitment and significant adjustments in organizational structures. In this article, the authors describe how patients and families have been integrated into the care delivery model by involving them in planning, decision-making, and improvement processes at all levels of the organization.

In this issue of Academic Medicine, Webster and colleagues explore the impact of a government-imposed mandate in Ontario, Canada, to limit the length of time patients can stay in the emergency department. The rule is aimed at emergency department crowding, which has been shown to result in poorer quality care, longer hospital stays, and higher mortality. Webster and colleagues found that learners were concerned about the effect of a time target on both their education and on patient-centered care and sensed a “hidden curriculum” refocusing teaching on “efficiency rather than safe, compassionate care.” The introduction of time targets in emergency departments may seem like a threat to both the education of learners and the quality of patient care. However, one aspect of quality is patient-centered care, which requires sensitivity to patients’ need for information, physical comfort, and reassurance. In this Commentary, the author describes the patient experience in the typical teaching hospital emergency department, arguing that for too long, teaching institutions have given only lip service to patient-centered care in favor of traditional teaching models. It is time to rebalance the scales so that the patient’s experience is a central feature of the curriculum and putting a time limit on how long patients stay in the emergency department may be one way to do it.

Guide to Effective Interprofessional Education Experiences in Nursing Education Toolkit
Speakman, E., Tagliareni, E.; Sherbume, A.; Sicks, S. National League for Nursing. At:
In a time of health care redesign in the United States, today’s health professionals are called to understand the complexity of patients’ health needs. For the nursing profession and nursing education, this understanding has two major implications: 1) Nurses are expected to use knowledge from several disciplines to treat patients, and 2) A coordinated interprofessional approach is needed to deliver quality care (Benner, Sutphen, Leonard & Day 2010; World Health Organization [WHO], 2010). Yet, recent reports express concern about the current capacity of nursing education to adapt to these demands, considering the shortage of nurse faculty and mentors (Benner et al.). Also, research shows concern about the inability of health professionals to work together due to poor communication and collaborative practices (Brandt, 2015). Both concerns, if unattended, can have adverse effects on the health outcomes of patients.

In response to this challenge, the National League for Nursing, as the voice of nurse educators nationally and internationally, published a Vision for Interprofessional Collaboration in Education and Practice (NLN, 2016) that calls for schools of nursing to change the historical and still predominant educational model of separate professional programs and create interprofessional education and practice initiatives. The NLN’s mission and core values and long history of being inclusive of professions and perspectives to promote innovative approaches to health professions’ education provide the foundation to address this challenge and opportunity.

### Medicine


Program outline and synopsis of each session and an extensive resource listing.


### Pharmacy


Simulation-based education allows experiential learning without risk to patients. Interprofessional education aims to provide opportunities to different professions for learning how to work effectively together. Interprofessional simulation-based education presents many challenges, including the logistics of setting up the session and providing effective feedback to participants with different backgrounds and mental models. This paper aims to provide educators with a series of practical and pedagogical tips for designing, implementing, assessing, and evaluating a successful interprofessional team-based simulation session. The paper is organized in the sequence that an educator might use in developing an interprofessional simulation-based education session. Collectively, this paper provides guidance from determining interprofessional learning objectives and curricular design to program evaluation. With a better understanding of the concepts and pedagogical methods underlying interprofessional education and simulation, educators will be able to create conditions for a unique educational experience where individuals learn with and from other specialties and professions in a controlled, safe environment.

Intentional Interprofessional Experiential Education (2018)

The experiential component of a doctor of pharmacy curricula is an ideal, yet underutilized vehicle to advance interprofessional education (IPE) initiatives. To date, most experiential-based IPE initiatives occur in a naturally occurring, non-deliberate fashion. The American Association of Colleges of Pharmacy (AACP) Experiential Education Section formed the Task Force on Intentional Interprofessional Education in Experiential Education in academic year 2015-2016 to explore the issue. This commentary describes the work of the task force, including the following elements: defining intentional interprofessional experiential education as “the explicit effort by preceptors and practice sites to create/foster educational opportunities or activities designed specifically to achieve interprofessional educational competencies;” conducting a systematic literature review to identify examples of intentional interprofessional experiential education in the published literature; surveying faculty with oversight of experiential education programs and preceptors within those programs; and generating recommendations to stakeholders including AACP, pharmacy schools, and experiential education administrators.

An Interprofessional Education Panel on Development, Implementation, and Assessment Strategies (2015)

This report provides a primer for implementing interprofessional education (IPE) within pharmacy and health sciences curricula. In 2013, a panel of administrators and faculty members, whose institutions offered IPE, funded by the Josiah Macy Jr. Foundation, shared best collaborative practice models at the American Association of Colleges of Pharmacy (AACP) Annual Meeting. These presenters subsequently collaborated to write a primer as guidance for other institutions interested in successfully implementing and continuously enhancing the quality of IPE programs. In this article, these IPE faculty members provide a rationale for creating IPE reforms, discuss successful strategies for innovative IPE programs,
and share lessons learned for implementing effective assessment tools. A structure and process for determining outcomes of IPE models are presented and strategies for exploring shared education opportunities across health professions and for integrating top-down and bottom-up methods for IPE programs are given.

Web-based versus face-to-face interprofessional team encounters with standardized patients (2018)

Challenges exist in developing interprofessional education (IPE) activities including coordinating schedules and obtaining appropriate space for teams to work. Virtual worlds have been explored as a means to overcome some of these challenges. We sought to develop a web-based interprofessional team interaction with a standardized patient (SP), as compared to a face-to-face SP interaction, focusing on the competency area of interprofessional communication.

Interprofessional Intervention to Support Mature Women: A Case Study (2015)

Understanding the impact interprofessional teamwork has on patient outcomes is of great interest to health care providers, educators, and administrators. This article describes one clinical team, Women’s Health Specialists, and their implementation of an interprofessional health intervention course: “Mindfulness and Well-being: The Mature Woman” (MW: MW) to support mature women’s health needs in midlife (age 40–70 years) and empower patient involvement in self-care. The provider team works to understand how their interprofessional education and collaborative practice (IPECP) interventions focused on supporting midlife women are associated with improved quality and clinical outcomes. This case study describes the work of the Women’s Health Specialists clinic in partnership with the National Center for Interprofessional Education and Collaborative Practice to study the impact an interprofessional team has on the health needs of women in midlife. This article summarizes the project structure, processes, outputs, and outcomes. Data collection, analysis, strategy, and next steps for future midlife women’s projects are also discussed.

Prast, J; Herlache-Pretzer, E; Frederick, A & Gafni-Lachter, L (2016)

Interprofessional collaboration is vital for the provision of quality patient care. Thoughtfully designed educational programs can help students of health professions develop interprofessional competencies and capacities, including values and ethics, roles and responsibilities, interprofessional communication, and teamwork (Interprofessional Education Collaborative Expert Panel, 2011). The authors were involved in developing Interprofessional Education (IPE) activities and simulations to be infused into the curriculums of the various
health professions programs in their College. A review of the IPE experiences revealed students greatly benefited from involvement in a diverse set of IPE activities and simulations.


Public Health

Addressing Social Determinants to Improve Patient Care and Promote Health Equity: An American College of Physicians Position Paper

Social determinants of health are nonmedical factors that can affect a person’s overall health and health outcomes. Where a person is born and the social conditions they are born into can affect their risk factors for premature death and their life expectancy. In this position paper, the American College of Physicians acknowledges the role of social determinants in health, examines the complexities associated with them, and offers recommendations on better integration of social determinants into the health care system while highlighting the need to address systemic issues hindering health equity.

Women’s Health Policy in the United States: An American College of Physicians Position Paper

In this position paper, the American College of Physicians (ACP) examines the challenges women face in the U.S. health care system across their lifespans, including access to care; sex- and gender-specific health issues; variation in health outcomes compared with men; underrepresentation in research studies; and public policies that affect women, their families, and society. ACP puts forward several recommendations focused on policies that will improve the health outcomes of women and ensure a health care system that supports the needs of women and their families over the course of their lifespans.

Sex and gender matter in health research: addressing health inequities in health research reporting

Attention to the concepts of ‘sex’ and ‘gender’ is increasingly being recognized as contributing to better science through an augmented understanding of how these factors impact on health
inequities and related health outcomes. However, the ongoing lack of conceptual clarity in how sex and gender constructs are used in both the design and reporting of health research studies remains problematic. Conceptual clarity among members of the health research community is central to ensuring the appropriate use of these concepts in a manner that can advance our understanding of the sex- and gender-based health implications of our research findings. During the past twenty-five years much progress has been made in reducing both sex and gender disparities in clinical research and, to a significant albeit lesser extent, in basic science research. Why, then, does there remain a lack of uptake of sex- and gender-specific reporting of health research findings in many health research journals? This question, we argue, has significant health equity implications across all pillars of health research, from biomedical and clinical research, through to health systems and population health.

Women’s Oral Health: The Evolving Science

The evidence base for women’s oral health is emerging from legislative action, clinical research, and survey documentation. The Women’s Health in the Dental School Curriculum study (1999) followed a similar study (1996) of medical school curricula. Both of these major efforts resulted from statutory mandates in the National Institutes of Health Revitalization Act of 1993 (updated October 2000). A major study of the Institute of Medicine (IOM) National Academy of Sciences in 2001 concluded that “the study of sex differences is evolving into a mature science.” This IOM study documented the scientific basis for gender-related policy and research and challenged the dental research enterprise to conduct collaborative, cross-disciplinary research on gender related issues in oral health, disease, and disparities. This report chronicles some of the factors that have and continue to influence concepts of women’s oral health in dental education, research, and practice. Gender issues related to women’s health are no longer restricted to reproductive issues but are being considered across the life span and include psychosocial factors that impact women’s health and treatment outcomes.

Interprofessional Care Coordination: Looking to the Future

Interprofessional care coordination is a tool, a means to achieve the Triple Aim of making care affordable, improving population health, and improving the experience of care. It plays an important role along the continuum of care, not only for those who live with complex medical illness and psychosocial problems and who generate high costs, but also to reduce duplication of services across professional silos for relatively healthy people and to prevent complications. Care coordination helps ensure a patient’s needs and preferences for care are understood, and that those needs and preferences are shared among providers, patients, and families as the patient moves from one health care setting to another.

Integrating Women’s Health into Schools of Public Health Curricula
Available at https://altarum.org/sites/default/files/uploaded-publication-files/SPH-Womens-Health-Brief-FINAL.pdf

Women, it is said, hold up half the sky. Healthy women hold up a healthy world: they nurture and improve their own health and well-being, and that of children, families, and communities.
Now, more than ever, health leaders recognize the critical need to integrate women’s health into public health programs. To this end, schools of public health nationwide are focusing on effective strategies to integrate women’s health into their curricula. Women’s health issues are central to efforts that improve public health; interdisciplinary and interprofessional collaboration are key to such efforts. A 2001 report by the Institute of Medicine noted that such collaboration is the cornerstone to improving quality and creating patient-centered care.

**Sexual and Gender Minority Health Curricula and Institutional Support Services at U.S. School of Public Health 2017**

**Dental Clinics of North America (April 2013): Evidence-based women's oral health, Editors: Leslie R Halpern and Linda M Kaste**


**Consideration of stakeholder perspectives, such as INEXUS: What Healthy Black Women Can Teach Us About Health. Black Women’s Health Imperative. 2016**


**Readings**

**We Deserve Better Health Care**
[http://annals.org/aim/fullarticle/2682683/women-deserve-better-health-care](http://annals.org/aim/fullarticle/2682683/women-deserve-better-health-care)

The American College of Physicians (ACP) position paper on women's health policy in the United States (1) is a welcome addition to ACP's published position papers. In it, the ACP Health and Public Policy Committee makes 7 recommendations to improve women's health services: 3 pertain to physicians' primary care practice, 2 to public policy issues, 1 to training, and 1 to research needs. We especially applaud recommendation 5, which calls for universal, paid family and medical leave policies. It is shocking that even the Maternal and Child Health Bureau of the Federal Health Resources and Services Administration cannot offer paid maternity leave. However, all of the ACP recommendations are important and interconnected. We highlight 3 ways in which integration across recommendations could significantly improve women's health care.
Global Health Organizations Must Address Internal Gender Disparities

Bringing Gender Equality to Global Public Health

Helen Clark, former prime minister of New Zealand and former administrator of the U.N. Development Programme, and Sania Nishtar, co-chair of the WHO’s Independent High-Level Commission on Noncommunicable Diseases and founder and president of Heartfile.

"...For decades, the global health community has paid lip service to the critical role of unequal power relations, particularly relating to gender, in determining health outcomes. At this point, one might expect to see a high degree of gender equality in the health sector. But a recent report by the advocacy and accountability group Global Health 50/50 shows otherwise. ... Many of [the organizations examined in the report] are falling embarrassingly short on addressing gender disparities. ... Looking ahead, we hope to see all global health organizations adopt concrete measures to address the shortcomings identified in the Global Health 50/50 report. Failing that, we would recommend that next year's report also rank the organizations in question, to make clear which of them are still falling behind. Women once had to fight for the right to vote, and we are now fighting for paid parental leave and equal pay. But we must go further, by also advocating for accountability and gender equality in the sphere of global public health" (5/8).

Co-Directors of Global Health 50/50 Discuss Role Of Gender Dynamics In NCDS, Overall Health Outcomes

PLOS Blogs' “Global Health;” Gender and NCDs: Benign neglect in the face of a gaping window of opportunity
Kent Buse, chief of strategic policy directions at UNAIDS, and Sarah Hawkes, professor of global health at the University College London (UCL) and founding director of the Centre for Gender and Global Health at UCL, both co-founders and co-directors of Global Health 50/50, discuss how gender impacts noncommunicable disease (NCD) rates and call on the High-Level Commission on NCDs, which will meet in September, to “bring gender centrally into approaches to address the NCD epidemic” (5/14).

BMJ Opinion: Kent Buse and Sarah Hawkes: Gender — global health’s dirty little secret
Buse and Hawkes discuss the impact of gender dynamics on health outcomes and argue that global health organizations need to understand these impacts, writing, "What we are calling for is all global health organizations to understand how gender dynamics impact on their strategy, objectives, target populations, and interventions (as well as on their staffing). This seems to us the only route to achieve the ambitious health-related targets established in Agenda 2030 — which also seeks to leave no one behind” (5/15).

The Partnership for Maternal, Newborn & Child Health (PMNCH) and Every Woman Every Child (EWEC) have issued a call for proposals on inspiring examples of collaborations
Particular emphasis is made on the EWEC priority themes (i) Early Childhood Development; ii) Adolescent Health and Well-Being; iii) Quality, Equity and Dignity in Services; iv) Sexual and Reproductive Health and Rights; v) Empowerment of Women, Girls and Communities; and vi) Humanitarian and Fragile Settings. Twelve proposals from low-, middle-, and high-income countries will be selected for development as case studies that provide insight about what has worked and why in collaborating across sectors. The case studies will be widely profiled, promoted and disseminated through traditional and digital media channels, and included as a special issue of a leading global health journal to be launched at the PMNCH Partners’ Forum in New Delhi, India (December 2018). It would be much appreciated if you could help us spread the word by: Disseminating the call for proposals: Share the call with your networks through email, social media, etc. (see attached dissemination package with text and tweets, as well as visuals for social media); Contacting or suggesting proposed applicants; please get in touch with or tell us about any relevant examples of collaboration that we could contact directly to encourage submissions.

Sex and Gender Health Education Summit
https://www.sghesummit2018.com/

Build on the 2015 Sex and Gender Medical Education Summit; provide resources to health professional educators for integration of sex and gender evidence into curricula; create a network to support and progress the integration of sex and gender differences into health professionals’ education; expand multi-disciplinary opportunities by convening leaders from 5 major professions – medicine, nursing, pharmacy, dentistry, and allied health. This summit will provide attendees with knowledge and resources to: navigate their organization and facilitate curricular change; create a step-wise plan for sex and gender integration; receive valuable assessment guidance from national experts; access ready-made sex and gender curricular materials; enhance interprofessional education through a sex and gender approach; engage with 300 health professionals faculty and stakeholders

Ten top issues for women’s health

Cancer: Two of the most common cancers affecting women are breast and cervical cancers. Detecting both these cancers early is key to keeping women alive and healthy. The latest global figures show that around half a million women die from cervical cancer and half a million from breast cancer each year. Reproductive health: Sexual and reproductive health problems are responsible for one third of health issues for women between the ages of 15 and 44 years. Unsafe sex is a major risk factor – particularly among women and girls in developing countries. Maternal health: Many women are now benefitting from massive improvements in care during pregnancy and childbirth introduced in the last century. But those benefits do not extend everywhere and in 2013, almost 300 000 women died from complications in pregnancy and childbirth. HIV: Three decades into the AIDS epidemic, it is young women who bear the brunt of new HIV infections. Too many young women still struggle to protect themselves against sexual transmission of HIV and to get the treatment they require. Sexually transmitted infections: I’ve already mentioned the importance of protecting against HIV and human papillomavirus (HPV) infection (the world’s most common STI). But it is also vital to do a better job of preventing and treating diseases like gonorrhea, chlamydia and syphilis. Violence against women: Women can be subject to a range of different forms of violence, but physical and sexual violence – either by a partner or someone else – is particularly invidious. Today, one in three women under 50 has experienced physical and/or sexual violence by a partner, or non-partner sexual violence –
violence which affects their physical and mental health in the short and long-term. Mental health: Evidence suggests that women are more prone than men to experience anxiety, depression, and somatic complaints – physical symptoms that cannot be explained medically. Depression is the most common mental health problem for women and suicide a leading cause of death for women under 60. Noncommunicable diseases: In 2012, some 4.7 million women died from noncommunicable diseases before they reached the age of 70 —most of them in low- and middle-income countries. They died as a result of road traffic accidents, harmful use of tobacco, abuse of alcohol, drugs and substances, and obesity -- more than 50% of women are overweight in Europe and the Americas. Being young: Adolescent girls face a number of sexual and reproductive health challenges: STIs, HIV, and pregnancy. About 13 million adolescent girls (under 20) give birth every year. Complications from those pregnancies and childbirth are a leading cause of death for those young mothers. Many suffer the consequences of unsafe abortion. Getting older: Having often worked in the home, older women may have fewer pensions and benefits, less access to health care and social services than their male counterparts. Combine the greater risk of poverty with other conditions of old age, like dementia, and older women also have a higher risk of abuse and generally, poor health.

Women’s Health Resources 2018
[link](https://mail.google.com/mail/u/0/#search/west/163feeba893ad51d?projector=1&amp;messagePartId=0.1)


CDC: Oral Health
[link](https://www.cdc.gov/oralhealth/index.html)

Good oral health is an important part of good overall health. Dental public health focuses on improving oral health for all Americans by reducing disparities and expanding access to effective prevention programs. Examples of CDC’s efforts in this area include community water fluoridation and school dental sealant programs. CDC also monitors disease across the nation and is working to integrate oral health programs into chronic disease prevention efforts and medical care.

Oral Health Care During Pregnancy and Early Childhood Practice Guidelines.
[link](https://www.health.ny.gov/publications/0824.pdf)

Pregnancy is a unique time in a woman’s life and is characterized by complex physiological changes. These changes can adversely affect oral health during pregnancy. Improving the oral health of expectant and new mothers and providing oral health counseling may reduce the transmission of such bacteria from mothers to children, thereby delaying the onset of caries. Emerging evidence shows an association between periodontal infection and adverse pregnancy outcomes, such as premature delivery and low birth weight. While some studies have shown that interventions to treat periodontal disease will improve pregnancy outcomes, conclusive clinical interventional trials are not yet available to confirm the preliminary results. Several organizations have undertaken efforts to promote oral health. The American Dental Association, the American Academy of Pediatric Dentistry, the American Academy of Periodontology and the American Academy of Pediatrics have issued statements and recommendations for improving the oral health of pregnant women and young children. To reinforce these recommendations and to provide guidance, the New York State Department of Health convened an expert panel of health care professionals who are involved in promoting the health of pregnant women and children. The panel reviewed literature, identified existing interventions, practices and
guidelines, assessed issues of concern, and developed recommendations. The panel developed separate recommendations for prenatal, oral health and child health professionals. The panel anticipates that these recommendations will be reviewed periodically and updated as new information becomes available. The panel recommendations include varies suggestions such as all health care professionals should advise women that dental care is safe and effective during pregnancy, prenatal care providers are encouraged to integrate oral health into prenatal services assessing problems with teeth and gums and make appropriate referral to an oral health care provider, oral health professionals should render all needed services to pregnant women because pregnancy by itself is not a reason to defer routine dental care and necessary treatment for oral health problems, child health professionals are encouraged to provide counseling and anticipatory guidance to parents and caretakers concerning oral health during well child visits, and many others.

CDC: Disparities in Oral Health
https://www.cdc.gov/oralhealth/oral_health_disparities/index.htm

Oral health disparities are profound in the United States. Despite major improvements in oral health for the population as a whole, oral health disparities exist for many racial and ethnic groups, by socioeconomic status, gender, age and geographic location. Some social factors that can contribute to these differences are lifestyle behaviors such as tobacco use, frequency of alcohol use, and poor dietary choices. Just like they affect general health, these behaviors can affect oral health. The economic factors that often relate to poor oral health include access to health services and an individual’s ability to get and keep dental insurance. Healthy People 2020 is the nation’s framework to improve the health of all Americans. The overarching goals of Healthy People 2020 are to increase quality and years of healthy life and eliminate health disparities. Interventions such as community water fluoridation and school-based dental sealant programs can help achieve this goal. Community water fluoridation reduces and aids in preventing tooth decay among different socioeconomic, racial, and ethnic groups. Currently, this Healthy People 2020 objective is moving toward its target of 79.6% of community water having fluoride. School sealant programs provide sealants to children who may not receive routine dental care. This includes children at highest risk for tooth decay: those from low-income families and certain racial and ethnic groups. Sealants are thin plastic coatings applied to the tiny grooves on the chewing surfaces of the teeth.

Taking the Bite Out of Oral Health Inequities

Oral health is more than toothaches, caries, and plaque. In fact, oral health can significantly impact one’s overall health. It contributes to school absences and poor academic performance. It can lead to missed work days and even trouble getting a job. And it can also contribute to and worsen serious chronic conditions such as heart disease, diabetes, and stroke. However, oral health is often overlooked as a pressing health issue. The causes of poor oral health are numerous, including an inability to access dental providers, barriers due to limited English proficiency, and the cost of dental insurance. And, as with many health disparities, what often doesn’t get considered are the other factors that contribute to poor oral health such as poverty and food security. In California, 23% of children between the ages of 0-18 live in poverty. Studies show that children living in poverty have five times more untreated dental decay than children from families with higher incomes. As one researcher stated: “The disparity in oral health between poor and affluent children in California is the worst in the nation,” even though California has more dentists per capita, compared to other states.

Women’s Health
https://www.womenshealth.gov/a-z-topics/oral-health
Women have unique oral health concerns. Changing hormone levels during your menstrual cycle, pregnancy, and menopause can raise your risk of problems in your mouth, teeth, or gums. Health issues such as diabetes can also affect your oral health. Regular brushing, flossing, and dentist visits can help prevent disease in your mouth and the rest of your body.

**Children’s Dental Health Project**

[https://s3.amazonaws.com/cdhp/Perinatal+Fact+Sheet_12-3-15.pdf](https://s3.amazonaws.com/cdhp/Perinatal+Fact+Sheet_12-3-15.pdf)

Pregnancy is an exciting time for a woman and her family. Given the seemingly endless information on healthy choices, it can be difficult to decide what is most important. Though often overlooked, oral health is essential for women during pregnancy and throughout their children’s early years. Cavities result from an infectious bacterial disease (“caries”) that compromises health and can unintentionally be transmitted to children. Poor oral health has been linked to health risks for pregnant women. Dental care is safe during pregnancy, but the public is not sure. Medical and dental practitioners can take active roles in the oral health of women. States could generate Medicaid savings by providing dental services to pregnant women. The oral health of future generations starts now.

**Implications for the Dental Care of Vulnerable Populations if Medicaid is Cut Back.**


Good oral health affects academic performance, employability and annual earnings, military readiness, overall health care costs, and general health status and well-being. The Affordable Care Act (ACA) has enhanced the ability of many Americans to receive dental care through the expansion of Medicaid and the inclusion of pediatric oral health as 1 of the 10 "essential health benefits." Almost all of the proposals presented by the current Congress and Administration to modify the ACA call for changes to Medicaid that would cut back funding and/or give states more control over programs. Limiting federal support to Medicaid will eventually increase the pressure on states to cut costs, and dental care is usually one of the first benefits on the chopping block. If this happens, all of the gains that have been realized as a result of the Medicaid expansion would be diminished or lost, with a significant impact on the overall health, well-being, and success of those who will suffer the consequences of a lack of access to dental care.
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<td>yes</td>
<td>yes</td>
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</tr>
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</table>

*Data from Google search: parameters were women's oral health, women's health, English language and data from 2005 and 2011 projects; about 223,000,000 hits! Links confirmed May 1, 2018.

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Core Functions of Public Health and How They Relate to the 10 Essential Services
