

## Partnering with Pharmacists to Provide Preconception Care

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## Presenter Disclosure

Natalie A. DiPietro Mager

- (1) The following personal financial relationships with commercial interests relevant to this presentation existed during the past 12 months:

No relationships to disclose

## Learning objectives

- Explain the need for an interdisciplinary approach to preconception care.
- Discuss why pharmacists are well-suited to impact public health priorities, including the improvement of pregnancy outcomes.
- Describe opportunities to collaborate with pharmacists to provide preconception care.

## Preconception care

- Set of interventions that aim to identify and modify biomedical, behavioral, and social risks to a woman's health or pregnancy outcome through prevention and management
  - Improve health for all women of childbearing age before conception
    - First or subsequent pregnancy (*interconception care*)
- Should be viewed as part of routine health care
- Components of preconception care include
  - risk screening
  - health promotion
  - effective interventions

Sources: CDC, 2006; Kent et al, 2006

## Clinical content of preconception care

14 evidence-based interventions have been identified, which can be classified into 4 categories

Counseling	Maternal assessment	Screening	Vaccinations
<ul style="list-style-type: none"> <li>• Folic acid</li> <li>• Smoking</li> <li>• Alcohol &amp; other recreational drug misuse</li> <li>• Obesity</li> </ul>	<ul style="list-style-type: none"> <li>• Pre-gestational diabetes</li> <li>• Hypothyroidism</li> <li>• Maternal phenylketonuria (PKU)</li> <li>• Teratogenic drugs</li> </ul>	<ul style="list-style-type: none"> <li>• HIV/AIDS</li> <li>• STIs</li> </ul>	<ul style="list-style-type: none"> <li>• Rubella</li> <li>• Hepatitis B</li> </ul>

See [http://www.ajog.org/article/S0002-9378\(08\)00887-9/fulltext](http://www.ajog.org/article/S0002-9378(08)00887-9/fulltext) for a comprehensive summary of strength of evidence for preconception topics

Sources: CDC, 2006; Kent et al, 2006

## Recognizing gaps in preconception care

- Current literature suggests that many women are not routinely receiving necessary education or interventions
  - Estimated 18.5% (CI=17.1-19.7) of women aged 18–44 years having a live birth in 4 states received preconception counseling from a health-care provider on at least 5 of 11 healthy lifestyle behaviors and prevention strategies before pregnancy
  - Nationally representative data on ambulatory visits for women aged 15–44 years indicated that only 14% included either preconception or contraceptive services
  - Only 32% of women aged 18–45 years affirmed that a health care provider had talked to them about the benefits of folic acid
    - 7% of women aged 18–24 years

Sources: Bello et al, 2015; MOD, 2008; Robbins et al, 2014

## Closing gaps in preconception care

- Interdisciplinary approach
  - Clinical-community linkages
    - Align and inform efforts among clinical providers, hospitals, community-based organizations, public health and governmental agencies, and other stakeholders

Source: AHRQ, 2015

## Pharmacists: education and training

- Doctor of Pharmacy (PharmD) degree
  - Entry-level degree since 2006
  - 6-8 years to complete
    - Extensive didactic preparation focused on clinical training and physical assessment
    - Diverse experiential experience in broad array of healthcare settings
    - Emphasis on patient-centered care and pharmacotherapy optimization to improve patient outcomes and quality of life
- Post-graduate opportunities: residency, fellowship, graduate school

Source: AACP, 2014

## Public health in PharmD curriculums

- CAPE educational outcomes
  - 2 of 4 domains emphasize population-based care and health/wellness
- ACPE accreditation standards
  - Competencies related to public health are in many of the standards for the didactic and experiential curriculum

Sources: AACP, 2013; ACPE, 2014

## Pharmacists: accessibility & impact

- There is growing recognition that pharmacists play an important role in public health and clinical health
- Examples:
  - American Public Health Association (2006)
    - Pharmacists are “often uniquely sited in the community to provide public health services”
    - Accessible, trusted healthcare professional
    - Specialized knowledge & training
    - Provision of primary, secondary, and tertiary prevention

Source: APHA, 2006

## Examples, continued

- US Public Health Service (2011)
  - “As public health professionals, through interprofessional practice, pharmacists can directly affect health determinants.”
- Centers for Disease Control and Prevention (2012)
  - “The role of the pharmacist has expanded beyond just dispensing medications and is evolving into active participation in chronic disease management as a part of team-based care.”
- National Association of County & City Health Officials (2014)
  - “Independent, chain, and ethnic pharmacies often target hard-to-reach and vulnerable populations”

Sources: USPHS, 2011; CDC, 2012; NACCHO, 2014

## Collaboration with pharmacists to increase provision of preconception care

- Reduce the number of **unintended pregnancies**
- Provide **education and/or medication therapy management** for women as appropriate for each of the 14 proven interventions
- Administer needed **vaccinations** to women per state law
- Interpret literature or provide **drug information** regarding medication use and drug toxicity before & during pregnancy
- Raise awareness and **advocate** for preconception care
- Conduct **research**

Sources: Briggs, 2002; DiPietro, 2008; DiPietro & Bright, 2014; El-Ibiary et al. 2014; Farris et al. 2010; Lee & Thomason, 2011

## Unintended pregnancies

- Currently 49% of all pregnancies in the U.S. are unintended
- Approximately 50% of all unintended pregnancies occur among couples using some form of contraception in the month prior to conception
  - Inconsistent or improper use
  - Discontinuation because of side effects
  - Method failure
  - Ambivalence about pregnancy desires
  - Partner sabotage

Sources: BBB, 2015; Guttmacher Institute, 2013

## “Traditional” roles for pharmacists

- Dispensing hormonal contraception prescriptions
- Aiding with selection of nonprescription products
- Counseling and educating patients
  - Education on proper and consistent use
  - Education on risks of contraception vs. risks of pregnancy
- Working with patients to create a reproductive life plan

Sources: DiPietro & Bright, 2014; Farris et al. 2010

## Emerging roles for pharmacists

- Providing hormonal contraceptives without a prescription per state law (California, Oregon)
  - Promoting behind-the-counter status for prescription contraceptives in all states
- Using collaborative practice agreements for initiation and continuation of prescription contraceptives per state law
- Choosing and counseling on emergency contraception; prescribing and dispensing per state law

Sources: Farris et al. 2010; Guttmacher 2015; Ostrov, 2013

- Providing administration of injectable contraception per state law
- Providing information or a referral for long-acting reversible contraceptives (LARC)
- Partnering with local health departments and family planning programs to increase access to contraceptives and promote safe use
- Utilizing social marketing materials to increase knowledge of available contraceptive options and increase their use

Source: Farris et al. 2010

## Medication therapy management (MTM)

- Assessment and evaluation of a patient’s complete medication therapy regimen
  - Distinct from medication dispensing
- Core elements of MTM
  - Medication therapy review (MTR)
  - Personal medication record (PMR)
  - Medication-related action plan (MAP)
  - Intervention and/or referral
  - Documentation and follow-up

Source: APBA, 2008

## Opportunities for pharmacist intervention through MTM

- Targeted medication review (TMR)
  - Folic acid
  - Teratogenic and Category X medications
  - Vaccines
- Comprehensive medication review (CMR)
  - Diabetes

Source: DiPietro & Bright, 2014

- Counseling and education
  - Tobacco
  - Alcohol and substance abuse
- Screening, support, and referrals
  - HIV/AIDS
  - Sexually transmitted infections (STIs)
  - Hypothyroidism
  - Obesity
  - Maternal phenylketonuria (PKU)

Source: DiPietro & Bright, 2014

## Vaccines

- Pharmacists may serve as an
  - Educator
  - Facilitator
  - Immunizer, per state law
    - Pharmacists are authorized to provide vaccines in all 50 states
    - Variation exists in
      - types of vaccines that can be administered
      - age groups of patients that pharmacists may vaccinate

Sources: Bach & Goad, 2015; DiPietro & Bright, 2014

## Drug information

- Pharmacists and pharmacy students are trained in medical literature retrieval and evaluation
- Provide and interpret information regarding drug toxicity and medication use before and during pregnancy
- Various drug information centers are also available
  - Example:
    - Ohio Northern University Drug Information Center (free service)
    - [http://www.onu.edu/pharmacy/drug\\_information\\_center](http://www.onu.edu/pharmacy/drug_information_center)

Source: ACPE, 2014; Briggs, 2002

## Advocacy

- Network and collaborate with health care and public health professionals with similar goals
  - Local
  - State
  - Federal
  - International
- Inform laws and regulations
- Involvement in regulatory agencies, public health programs, and professional associations
- Build understanding and good will between practitioners to promote pilot projects

Sources: APHA 2006; Farris et al, 2010

## Research

- Collaborate with pharmacists in research projects
  - Academia
  - Practice
    - Examples:
      - American College of Clinical Pharmacists Women's Health Practice and Research Network
      - Pharmacy-based Practice-Based Research Networks

Source: ACCP, 2014; AHRQ, 2014

***“Any effort to increase the use of preventive services and improve women’s health status must be interprofessional in nature and include pharmacy as one of the targeted health professions.”***

*~ U.S. Department of Health and Human Services (HHS), Health Resources and Services Administration (HRSA), Office on Women's Health (OWH), American Association of Colleges of Pharmacy (AACP), 2004*

***“Evidence of the contribution of pharmacists in improving Maternal, Newborn and Child Health has been gathered in many countries . . . pharmacists could contribute even further, if and when they are empowered to work within the full scope of pharmacy services appropriate in their country.”***

*~ International Pharmaceutical Federation (FIP), 2013*

## Questions/Comments

Thank you!  
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