

3-29-2011

# Maternal Health Workforce Shortages in Southeast Pennsylvania

Jacqueline E. Kohl

*Thomas Jefferson University*, [jacquelinekohl@gmail.com](mailto:jacquelinekohl@gmail.com)

## Let us know how access to this document benefits you

Follow this and additional works at: [http://jdc.jefferson.edu/mphcapstone\\_presentation](http://jdc.jefferson.edu/mphcapstone_presentation)Part of the [Public Health Commons](#)

### Recommended Citation

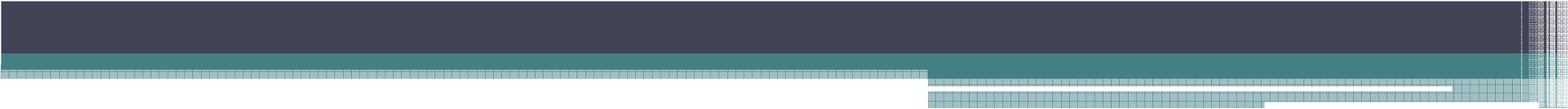
Kohl, Jacqueline E., "Maternal Health Workforce Shortages in Southeast Pennsylvania" (2011).  
*Master of Public Health Thesis and Capstone Presentations*. Presentaion 40.  
[http://jdc.jefferson.edu/mphcapstone\\_presentation/40](http://jdc.jefferson.edu/mphcapstone_presentation/40)

This Article is brought to you for free and open access by the Jefferson Digital Commons. The Jefferson Digital Commons is a service of Thomas Jefferson University's [Center for Teaching and Learning \(CTL\)](#). The Commons is a showcase for Jefferson books and journals, peer-reviewed scholarly publications, unique historical collections from the University archives, and teaching tools. The Jefferson Digital Commons allows researchers and interested readers anywhere in the world to learn about and keep up to date with Jefferson scholarship. This article has been accepted for inclusion in Master of Public Health Thesis and Capstone Presentations by an authorized administrator of the Jefferson Digital Commons. For more information, please contact: [JeffersonDigitalCommons@jefferson.edu](mailto:JeffersonDigitalCommons@jefferson.edu).

# Maternal Health Workforce Shortages in Southeast Pennsylvania

## Defining the Problem & Generating Solutions

Jacqueline E. Kohl  
Jefferson School of Population Health  
Capstone Presentation  
March 29<sup>th</sup>, 2011

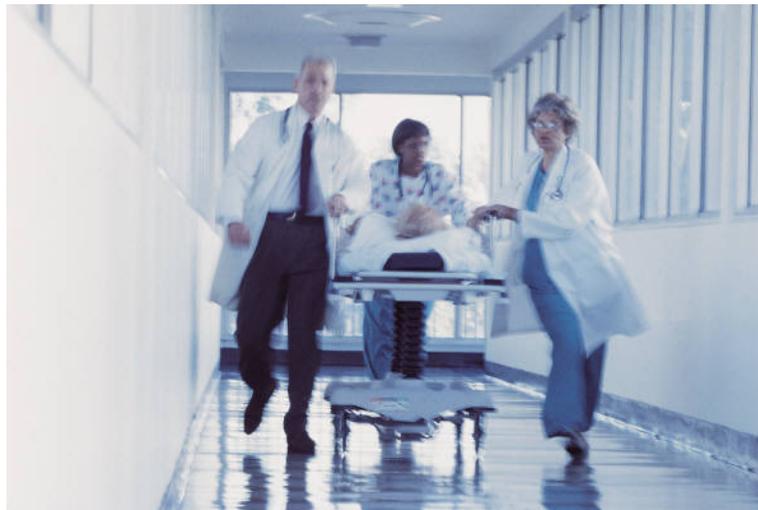


# Introduction

- Over 50, 000 babies born annually in Southeastern Pennsylvania
- Southeastern Pennsylvania has faced closures of many maternity wards (19 since 1997)
- Anecdotal concerns have surfaced that there are resultant workforce shortages in maternal health

# Study Aims

- 1) To define the problem of maternal health workforce shortages in Southeastern Pennsylvania
- 2) To identify potential solutions to address the shortages in maternity health workforce.



# Background

- Infant mortality rates are high in Pennsylvania, especially Philadelphia
- There are many determinants of infant mortality, including inadequate prenatal care
- Southeastern PA is not meeting HP2020 goals for women receiving adequate prenatal care
- Impacts of maternity ward closures
  - Poor geographic distribution
  - Fewer choices for patients
  - Increased volume at remaining hospitals
  - Decreased workforce?

# Maternal Health Workforce Concerns

- Limited data on workforce shortages (OB-GYNs)
  - Loss of ~40 OBs in early 2000s
  - Older OB workforce in Pennsylvania (ranked 41<sup>st</sup>)
  - 21% decrease in OB workforce from 1998-2004
  - Recent ↑ in exit rates & ↓ in entrance rates
- With ↓ workforce , ↑ deliveries/practitioner
  - Hypothesized to result in poorer outcomes for patients
  - Little data available on safety of ↑ patient volume

*References: Guadagnino (2004), Polsky, Marcus, & Werner (2010), PA Department of Health (2009)*

# Determinants of Obstetric Workforce

- Medical malpractice is a major problem in PA
  - “Crisis States” (AMA) & “Red Alert States” (ACOG)
  - New ob-gyn’s less likely to establish practices in high malpractice regions (*Robinson, et al, 2005*)
  - Changes in practice patterns due to malpractice reported (*Mello, et al. 2005*)
- Other potential factors
  - Gender composition of workforce & hours worked
  - Attractiveness of field to students
  - Loss of OB interest in family medicine

# Methods

- Qualitative research study with key informants
- Participants: practitioners and workers in the field of maternal health in Southeast PA
- Structured interview administered by a single researcher including patient access to maternal health care, issues in workforce training, workforce shortages, and solutions to these problems
- Interviews conducted in-person or via phone
- Thematic analysis of data was performed by two researchers

# Results: Background

- 10 participants
  - 6 physicians
    - 4 ob-gyn (3 department chairs)
    - 2 family medicine
  - 2 public sector
    - Department of MCFH & FQHC-associated midwife
  - 2 non-profit organizations serving women

## • Participant professional time

	Participants	Time
Direct Health Services -Patient care	7	55%
Health Education & Training -Student & resident lectures -Resident precept -Workshops	7	26%
Creation & Analysis of Policy -Institutional (6) -State & local (3) -National (4) -Other (5)	10	14.5%

# Results: Major Themes

Section	Theme 1	Theme 2	Theme 3
1. Preconception & Post-partum Care	Women do not get preconception/ postpartum/ preventive care.	Insurance is not much of an issue once pregnant, but is a barrier for preventive PCC/PPC.	The health care system for women is disjointed.
2. Prenatal Care	There are barriers to accessing prenatal care	Prenatal care is not highly enough valued.	Quality of care and patient expectations have declined.
3. Intra-partum Care	There are no low-technology options for birth in Philadelphia	Quality of care has suffered with hospital closures.	There are geographic barriers to ideal care.
4. Workforce Development (6/10 only)	Fewer graduates are choosing to incorporate obstetrics into their practices.	Few graduates choose to practice in Philadelphia	Applications for obstetrics have been increasing, not decreasing nationally.

# Sample Quotes, Sections 1-4

- *I think the big issues are linking these services with life-course care. Why does all of women's health care have to be linked to conception? There is a separate system for delivery of care for women, especially in poverty. The concept of well-women care is vital. A patient may get this from a private ob, but it is more separate from primary care of women than it needs to be. We need to be asking what is the concept of this care?*
- *There is a big educational issue: women see no connection between preconception health and pregnancy outcomes, and obesity, diabetes etc. are major determinants*
- *[Speaking of overbooking to compensate for appointment no-shows] When everyone shows up, providers are rushed, patients have to wait and everyone's "pissed off": doctors, nurses, patients, office administrators. Quality of care suffers as a result.*
- *It's up to patients to take responsibility for PNC, and the community doesn't value it. There are many who don't get early or any PNC. Nothing to do with access to care, more with valuing PNC.*

# Results: Major Themes Continued

Section	Theme 1	Theme 2	Theme 3
5. Shortages & Implications	There are not sufficient resources/ providers for the provision of maternal health care locally.	Providers are facing reduced satisfaction in their professions.	Due to workforce & facility shortages, patients are receiving less personal care/ provider relationships.
6. Understanding Shortages	Financially, practice of obstetrics is not attractive locally.	There is decreased job satisfaction in this field.	State/national issues magnified locally. “Perfect storm”
7. Approaching Solutions	Malpractice in PA needs to be addressed.	Changes in malpractice/ MA reimbursements could help, but not without shift in values.	The current system is fragmented, and needs to be brought together.
8. Stakeholders & Problem-Solvers	Patients/ the public are vital for achieving any change.	The stakeholder/ change agent group is varied, and depends on many groups working together.	Providers have not been involved enough because they have been too busy clinically.

# Sample Quotes, Sections 5-8

- *Midwives at one hospital are delivering 30 babies a day, and there are grumblings of workers feeling stressed. Beginning to worry about provider self-care.*
- *Providers so busy trying to keep their heads above water. When they have to see 30 patients in a day, can't worry about satisfaction, and the soft & fuzzy's; they need to do what's necessary to take care of the patient.*
- *There is an extremely bad perfect storm (in Philadelphia)-terrible liability, low reimbursements, competition among hospitals, flat to decreasing birth rate.*
- *The patients need to be reached and health care needs to be valued, whether through churches, parenting, community*

# Impacts of workforce shortages

- All participants indicated that there are shortages in maternal health workforce with negative implications for patients & providers
  - Patients experience long waits, difficulty getting appointments, less choice of hospital & provider, and decreased quality of care
  - Providers face busier schedules, increased stress, greater burnout, fewer practice options and reduced work satisfaction

# Determinants of shortages

- The causes of workforce shortages in maternal health are multi-factorial, and have roots at the system, provider and patient level.
  - **System** factors: liability in Pennsylvania, low reimbursements from Medicaid providers and a fragmented system of clinics and academic centers
  - **Provider** factors: desire for better salaries and preferences for less impoverished patient populations
  - **Patient** factors: misinformation, lack of knowledge about the importance of ongoing health care, and not valuing care that is provided.

# Recommendations

- Tort reform, particularly instituting caps on noneconomic damages. *References: Colby & Williams (2006), Kessler, Sage, & Becker (2005)*
- Improved collaboration:
  - Among academic centers, community hospitals, district health clinics and FQHCs
  - Among practitioner types: obstetricians, family medicine doctors, nurses, nurse practitioners, midwives, physician's assistants and others
  - Form coalitions that work together toward common goals
  - Create more opportunities for interdisciplinary training
- Address communication barriers/fragmentation with city-wide EMR accessible for inpatient/outpatient information
- Garner community support by assessing and addressing community needs regarding maternal health and health care

# Limitations

- Small study sample, limited by participant willingness to participate and availability
- Participants focused mostly on Philadelphia, not the whole of Southeastern Pennsylvania
  - Results cannot be generalized beyond Philadelphia
- Majority of participants were physicians (6/10)

# Acknowledgements

- I am deeply grateful to my capstone committee, Letty Thall, Dr. Kathryn Kash, and especially Dr. Mona Sarfaty, my capstone advisor, for their hard work and input. I could not have done it without them!
- I would also like to extend a special thanks to all participants, for their time and valuable insights.

Any questions?



# References

- American Medical Association. (2010). *America's medical liability "crisis": Key points*. Retrieved July, 2010, from [www.ama-assn.org/ama1/pub/upload/mm/399/mlr\\_fastfacts.pdf](http://www.ama-assn.org/ama1/pub/upload/mm/399/mlr_fastfacts.pdf)
- American Medical Association. (2011). *Medical liability reform*. Retrieved March 10, 2011, from <http://www.ama-assn.org/ama/pub/advocacy/current-topics-advocacy/practice-management/medical-liability-reform.shtml>
- Anderson, B. L., Hale, R. W., Salsberg, E., & Schulkin, J. (2008). Outlook for the future of the obstetrician-gynecologist workforce. *American Journal of Obstetrics and Gynecology*, 199(1), 88.e1-88.e8. doi:10.1016/j.ajog.2008.03.013
- Association of American Medical Colleges (AAMC). (2011). *FACTS: Applicants, matriculants, enrollment, graduates, MD/PhD and residency applicants data*. Retrieved March 2, 2011, from <https://www.aamc.org/data/facts/>
- Bettes, B. A., Chalas, E., Coleman, V. H., & Schulkin, J. (2004). Heavier workload, less personal control: Impact of delivery on obstetrician/gynecologists' career satisfaction. *American Journal of Obstetrics and Gynecology*, 190(3), 851-857. doi: 10.1016/j.ajog.2003.10.695
- Bishop, G. (2006). *Childbirth at a crossroads in southeastern pennsylvania*. Philadelphia, PA: Maternity Care Coalition.
- Bureau of Health Statistics and Research. (2009). *Selected data from the annual hospital questionnaire*. No. 1A). Pennsylvania: Pennsylvania Department of Public Health. Retrieved from <http://www.dsf.health.state.pa.us/health/lib/health/facilities/hosamb/2008-2009/REP1A.PDF>
- Bureau of Health Statistics and Research. (2010). *Family health statistics for Pennsylvania counties*. Pennsylvania: Pennsylvania Department of Health.
- Burns, L. R., Connolly, T., & DeGraaff, R. A. (1999). Impact of physicians' perceptions of malpractice and adaptive changes on intention to cease obstetrical practice. *The Journal of Rural Health : Official Journal of the American Rural Health Association and the National Rural Health Care Association*, 15(2), 134-146.

# References, continued

- Callahan, M. P., & Farley, C. (2005). Impact of professional liability on obstetricians/gynecologists' career satisfaction. *Journal of Midwifery & Women's Health*, 50(6), 543-544. doi:DOI: 10.1016/j.jmwh.2004.09.008
- Colby, D. C., & Williams, C. H. (2006). *Medical malpractice: Impact of the crisis and effect of state tort reforms*. (Policy Brief No. 10). NJ: Princeton: Robert Wood Johnson Foundation.
- Cowan, B. D. (2009). Women's health care vital signs: Stable or not? *American Journal of Obstetrics and Gynecology*, 200(3), 325-328. doi:10.1016/j.ajog.2008.12.005
- Downe, S., Finlayson, K., & Fleming, A. (2010). Creating a collaborative culture in maternity care. *Journal of Midwifery & Women's Health*, 55(3), 250-254.
- Finer, L. B., & Henshaw, S. K. (2006). Disparities in rates of unintended pregnancy in the United States, 1994 and 2001. *Perspectives on Sexual Reproductive Health*, 38, 90-96.
- Gariti, D. L., Zollinger, T. W., & Look, K. Y. (2005). Factors detracting students from applying for an obstetrics and gynecology residency. *American Journal of Obstetrics and Gynecology*, 193(1), 289-293. doi: 10.1016/j.ajog.2004.11.011
- Guadagnino, C. (2004). *Obstetrician scarcity in pennsylvania*. [Physician's News Digest] , July 2010.
- Institute of Medicine (IOM). (1985). *Preventing low birthweight*. Washington, D.C.: National Academy Press.
- Insurance Department, Commonwealth of Pennsylvania. (2011). *Mcare*. Retrieved March 10, 2011, from <http://www.portal.state.pa.us/portal/server.pt/community/mcare/5235>
- Kaye, K., Elkind, L., Goldberg, D., & Tytun, A. (1989). Birth outcomes for infants of drug abusing mothers. *NY State Journal of Medicine*, 89(5), 256-261.
- Kessler, D. P., Sage, W. M., & Becker, D. J. (2005). Impact of malpractice reforms on the supply of physician services. *JAMA : The Journal of the American Medical Association*, 293(21), 2618-2625.

# References, continued

- Kolker, J. (2011). *The status of maternity units access*. Retrieved February 28, 2011, from <http://www.momobile.org/ObstetricsAccess1.html#Capacity>
- Kotelchuck, M. (1994). The adequacy of prenatal care utilization index: Its US distribution and association with low birthweight. *American Journal of Public Health, 84*(9), 1486.
- Kravitz, R. L., Leigh, J. P., Samuels, S. J., Schembri, M., & Gilbert, W. M. (2003). Tracking career satisfaction and perceptions of quality among US obstetricians and gynecologists. *Obstetrics & Gynecology, 102*(3), 463-470. doi:DOI: 10.1016/S0029-7844(03)00666-5
- MacDorman, M. F., & Mathews, T. J. (2009). *Behind international rankings of infant mortality: How the united states compares with europe*. Hyattsville, MD: National Center for Health Statistics.
- Matteson, D. W., Burra, J. A., & Marshall, J. R. (1998). Infant mortality: A multi-level analysis of individual and community risk factors. *Social Science & Medicine, 47*(11), 1841-1854.
- McCullough, Campbell & Lane. (2007). *Pennsylvania medical malpractice summary*. Retrieved March 10, 2011, from <http://www.mcandl.com/pennsylvania.html>
- Mello, M. M., Studdert, D. M., DesRoches, C. M., Peugh, J., Zapert, K., Brennan, T. A., & Sage, W. M. (2005). Effects of a malpractice crisis on specialist supply and patient access to care. *Annals of Surgery, 242*(5), 621-628.
- Organization for Economic Co-operation and Development (OECD). (2009). *OECD health data 2009 - frequently requested data*. Retrieved December, 17, 2010, from [http://www.oecd.org/document/16/0,3343,en\\_2649\\_34631\\_2085200\\_1\\_1\\_1\\_1,00.html](http://www.oecd.org/document/16/0,3343,en_2649_34631_2085200_1_1_1_1,00.html)
- Pennsylvania Department of Health. (2009). *2009 pulse of Pennsylvania's physician and physician assistant workforce: A report on the 2008 survey of physicians and physician's assistants*. No. 4. Pennsylvania Department of Health.

# References, continued

- Pennsylvania Department of Health, Statistics and research. (2010). *Number and percent of births receiving prenatal care in the first trimester of pregnancy, by race and selected MCD's, Pennsylvania residents, 2006-2008*. Retrieved February 22, 2011, from <http://www.portal.state.pa.us/portal/server.pt?open=18&objID=902645&mode=2>
- Polsky, D., Marcus, S. C., & Werner, R. M. (2010). Malpractice premiums and the supply of obstetricians. *Inquiry : A Journal of Medical Care Organization, Provision and Financing*, 47(1), 48-61.
- Public Health Management Corporation (PHMC). (2010). *Community health data base (2008) southeastern Pennsylvania household health survey*. Retrieved March 10, 2011, from <http://www.phmc.org/site/index.php>
- Reed, K. L. (2001). Effect of gender on the obstetric-gynecologic work force. *Obstetrics and Gynecology*, 98(3), 521-522.
- Robinson, P., Xu, X., Keeton, K., Fenner, D., Johnson, T. R., & Ransom, S. (2005). The impact of medical legal risk on obstetrician-gynecologist supply. *Obstetrics and Gynecology*, 105(6), 1296-1302. doi:10.1097/01.AOG.0000157468.12907.1a
- Rosenberg, T. J., Garbers, S., Lipkind, H., & Chiasson, M. A. (2005). Maternal obesity and diabetes as risk factors for adverse pregnancy outcomes: Differences among 4 Racial/Ethnic groups. *American Journal of Public Health*, 95(9), 1545-1551.
- Ruderman, J., Holzapfel, S. G., Carroll, J. C., & Cummings, S. (1999). Obstetrics anyone? how family medicine residents' interests changed. *Canadian Family Physician Medicine De Famille Canadien*, 45, 638-40, 643-7.
- The American College of Obstetricians and Gynecologists. (2010). *ACOG's "Red alert" states—America's medical liability "crisis"*. Retrieved July, 2010, from [http://www.acog.org/departments/dept\\_notice.cfm?recno\\$15&bulletin\\$2242](http://www.acog.org/departments/dept_notice.cfm?recno$15&bulletin$2242)
- U.S. Bureau of Labor Statistics. (2010). *Occupational employment and wages, may 2009*. Retrieved March 10, 2011, from <http://www.bls.gov/oes/current/oes291064.htm#st>

# References, continued

- United States Department of Health and Human Services (US DHHS). (2010). *Healthy people 2020: Improving the health of Americans*. Retrieved February 22, 2011, from <http://www.healthypeople.gov/2020/>
- United States Department of Health and Human Services (US DHHS), Centers of Disease Control and Prevention (CDC), National Center for Health Statistics (NCHS), Office of Analysis and Epidemiology (OAE), Division of Vital Statistics (DVS). *Linked birth / infant death records 2003-2005 on CDC WONDER on-line database*. Retrieved December 17, 2010, from <http://wonder.cdc.gov/lbd-current.html>
- United States Department of Health and Human Services (US DHHS), Centers of Disease Control and Prevention (CDC), National Center for Health Statistics (NCHS), Office of Analysis and Epidemiology (OAE) & Division of Vital Statistics (DVS). (2009). *Linked birth / infant death records 2003-2005*. Retrieved July, 2010, from <http://wonder.cdc.gov/lbd-current.html>
- Ventura, S. J., Hamilton, B. E., & Mathews, T. J. (2003). Trends and variations in smoking during pregnancy and low birth weight: Evidence from the birth certificate, 1990–2000. *Pediatrics*, *111*(5), 1176-1180.
- Xu, X., Lori, J. R., Siefert, K. A., Jacobson, P. D., & Ransom, S. B. (2008). Malpractice liability burden in midwifery: A survey of Michigan certified nurse-midwives. *Journal of Midwifery & Women's Health*, *53*(1), 19-27. doi: 10.1016/j.jmwh.2007.10.003