

Notes on the Economics of Out-of-Hospital Maternity Care

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The economic analysis of public policy is usually a struggle with trade-offs. A policy to increase the speed limit, for example, will save time and money, the trade-off being a predictable increase in traffic fatalities. Perhaps the best news today is that the proposal to increase access to out-of-hospital maternity care by certified professional midwives is not about trade-offs. Home and birth center births are as safe as hospital births,¹ which creates a win-win situation: we can have the safety of hospital births at a fraction of the cost.

The relevant discussion, then, is about whether the size of the “win” is worthwhile. Let’s consider estimates of the potential winnings.

There are 4.3 million births annually in the United States.²

The average cost for an uncomplicated home birth with a midwife is \$2,391.³

In birth centers the average cost is \$5,318.⁴

In hospitals the average cost for vaginal births is \$8,456.⁵

Yet only about 1 percent of those births occur outside of hospitals.

Setting aside the issues of C-sections and birthweight for a moment, consider the savings from deliveries at home and in birth centers. We’d be optimistic to think that 30 percent of mothers might deliver at home as in the Netherlands, but suppose that an additional 5 percent of

¹ See Johnson and Daviss (2005) for a prospective cohort study and a survey of the literature.

² See http://www.census.gov/compendia/statab/cats/births_deaths_marriages_divorces.html.

³ This figure is from Anderson and Anderson (1999), updated to 2009 dollars using the Consumer Price Index. Informal surveys of CPM and CNM charges produce similar results. For example, 22 responses to the question, “What is the average cost of prenatal care and birthing with a midwife?” on [mothering.com](http://www.mothering.com) in 2002 (<http://www.mothering.com/discussions/showthread.php?t=18896>) averaged \$2,223 (not including births by lay midwives), or \$2,632 in 2009 dollars.

⁴ This figure is from Stone and Walker (1995), updated to 2009 dollars using the Consumer Price Index. The figure is 37 percent less than the figure for hospital births, which is consistent with findings that birth centers charge 30 to 50 percent as much as hospitals (see, for example, <http://www.birthcenters.org/pdf/bcexp.pdf>).

⁵ This is an average of figures from Mushinski (1994) and Health Insurance Associates of America (1991), updated to 2009 dollars using the Consumer Price Index. Merrill and Steiner (2006) find an average of \$7,189 in 2009 dollars for hospital charges only, not including prenatal care or M.D. charges.

deliveries occurred at home rather than in a hospital. The savings from this change would be \$1.304 billion annually.⁶

If another 5 percent of deliveries occurred in birth centers rather than hospitals, the savings would be an additional \$675 million annually.⁷

Now consider the large and increasing number of C-sections performed in U.S. hospitals.⁸

The national average rate of cesarean delivery is 31.8 percent.⁹ Among low-risk mothers delivering in hospitals the rate is 19.0 percent,¹⁰ compared to 3.7 percent¹¹ and 4.4 percent¹² for home and birthing center deliveries respectively.

A C-section adds about \$5,300 to the cost of a birth.¹³ With the reduced likelihood of C-sections among the 5 percent additional home deliveries and the 5 percent additional birth center deliveries as discussed, the savings would be an additional \$341 million annually.¹⁴

When prenatal care is provided by midwives, the incidence of low birthweight decreases from 2.4 percent to 1.1 percent.¹⁵ Low birthweight adds an average of \$15,100 to the cost of caring for an infant,¹⁶ with additional health and financial repercussions later in life.

If the percent of out-of-hospital births increased by 10 percent as discussed earlier, with the reduced likelihood of low birthweight, the additional savings would amount to \$84 million.¹⁷

⁶ Calculated as 4.3 million x .05 x (\$8,456 - \$2,391).

⁷ Calculated as 4.3 million x .05 x (\$8,456 - \$5,318).

⁸ See http://www.cdc.gov/nchs/data/nvsr/nvsr57/nvsr57_12.pdf.

⁹ See http://www.cdc.gov/nchs/data/nvsr/nvsr57/nvsr57_12.pdf.

¹⁰ See Johnson and Daviss (2005).

¹¹ See Johnson and Daviss (2005).

¹² See Rooks et al. (1989).

¹³ See Merrill and Steiner (2006).

¹⁴ Calculated as [4.3 million x .05 x (.19 - .037) x \$5,300] + [4.3 million x .05 x (.19 - .044) x \$5,300].

¹⁵ See Johnson and Daviss (2005). A similar decrease, from 2.8 percent to 1.8 percent, is reported in www.macpm.org/Washington_Midwifery_Cost_Study_10-31-07__1_.pdf for birth weights < 1800 grams rather than < 2500 grams.

¹⁶ See Russell et al. (2007).

¹⁷ Calculated as 4.3 million x .10 x (.024 - .011) x \$15,100.

As an economist I am compelled to bring up one more important result of the advancement of out-of-hospital births in the United States: competition. The power of competition as a moderating force for prices and as an incentive for quality care is clear.

In my own research, I found that each additional shoe retailer in an area decreased the average price for shoes by around 5 percent.

As we speak, automakers are reducing the number of dealers because competition among several dealers in the same area lowers prices.

And to fly non-stop from Lexington, KY to Washington D.C. costs \$431, while the slightly longer flight from Louisville, KY to Washington, D.C. costs \$204, 47 percent as much.¹⁸ Why? Because the low-cost, service-oriented airline Southwest serves Louisville. When certified professional midwives serve the 50 states, they will be that low-cost, service-oriented competitor for hospitals.

If, with competition, the average cost of hospital births came down 10 percent, that would mean savings for the 3.8 million women who would still deliver in the hospital under our scenario. The additional savings would amount to \$3.2 billion.¹⁹

The World Health Organization recommends cesarean birth rates of 10 to 15 percent.²⁰ If competition from home births and their 3.7 percent cesarean rate motivated hospitals to decrease their rate to 15 percent—the high end of the WHO recommendation—the savings would be an additional \$3.4 billion.²¹

The total savings I have described amount to an estimated \$9 billion annually.²²

This proposal represents a win for many constituents:

- constituents who want childbirth to be safe and natural,
- constituents who favor freedom of choice,
- constituents who want to reduce the cost of healthcare, and
- constituents who favor free-market solutions.

¹⁸ Airfares checked on Travelocity.com on May 21, 2009.

¹⁹ Calculated as 3.8 million x .10 x \$8,456. Because hospitals would still be the exclusive provider of care for complications, it is assumed that only the base price for an uncomplicated birth would decrease.

²⁰ See <http://www.choicesinchildbirth.org/who.htm>.

²¹ Calculated as 3.8 million x (.318 - .15) x \$5,300.

²² Calculated as \$1.304 B + \$675 M + \$341 M + \$84 M + \$3.2 B + \$3.4 B.

I hope you will embrace this winning approach to lowering healthcare costs. Thank you for your time.

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