# What would a Maternity Care System Look Like if we Listened to Mothers?

Gene Declercq, PhD
Boston University School of Public Health
Normal Birth Research Conference
Sydney, Australia
October 11, 2016

# Presentation will involve both existing data and material from unpublished studies.

Slides not involving unpublished data will be posted and available to download for free at:

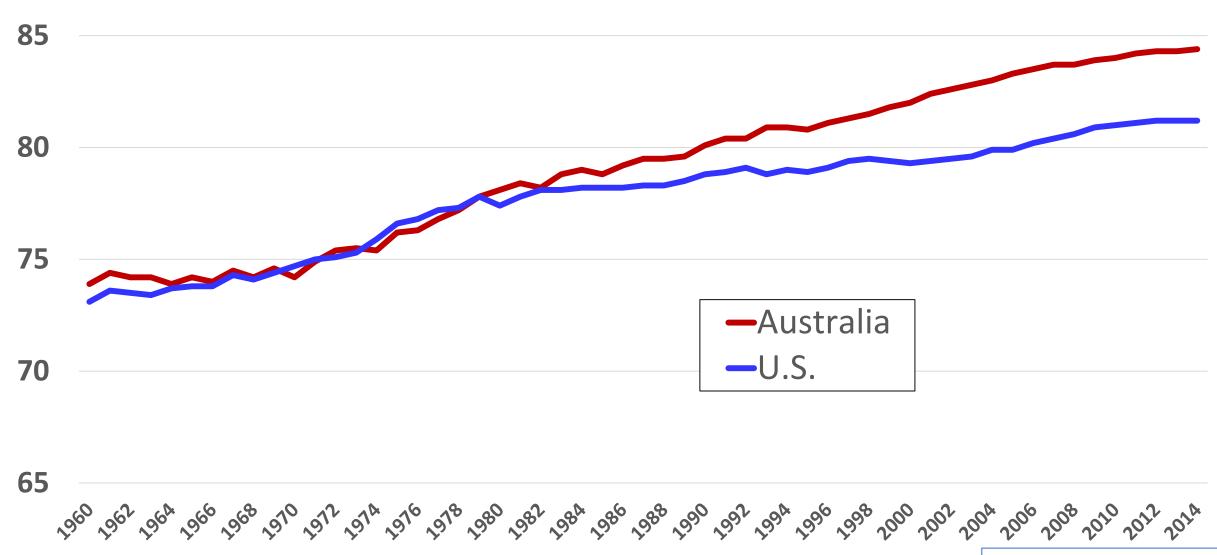
www.birthbythenumbers.org

Please do not take pictures of the data slides!

# Putting the U.S. and Australia in Comparative Context

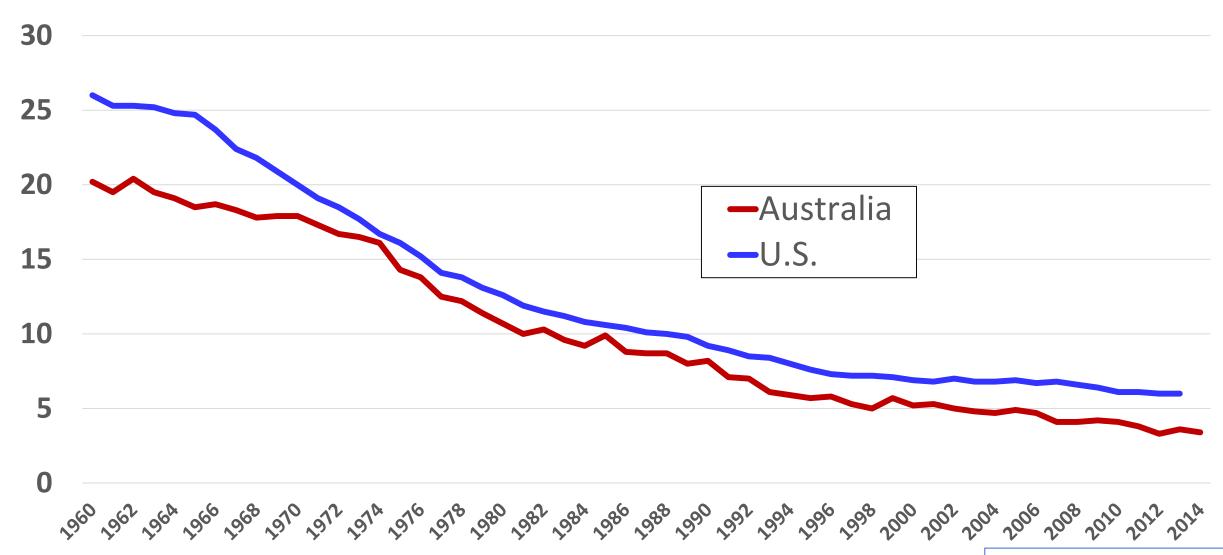
(Caution: Measures are not always consistent between countries or over time)

# Female Life Expectancy, U.S. and Australia, 1960-2014



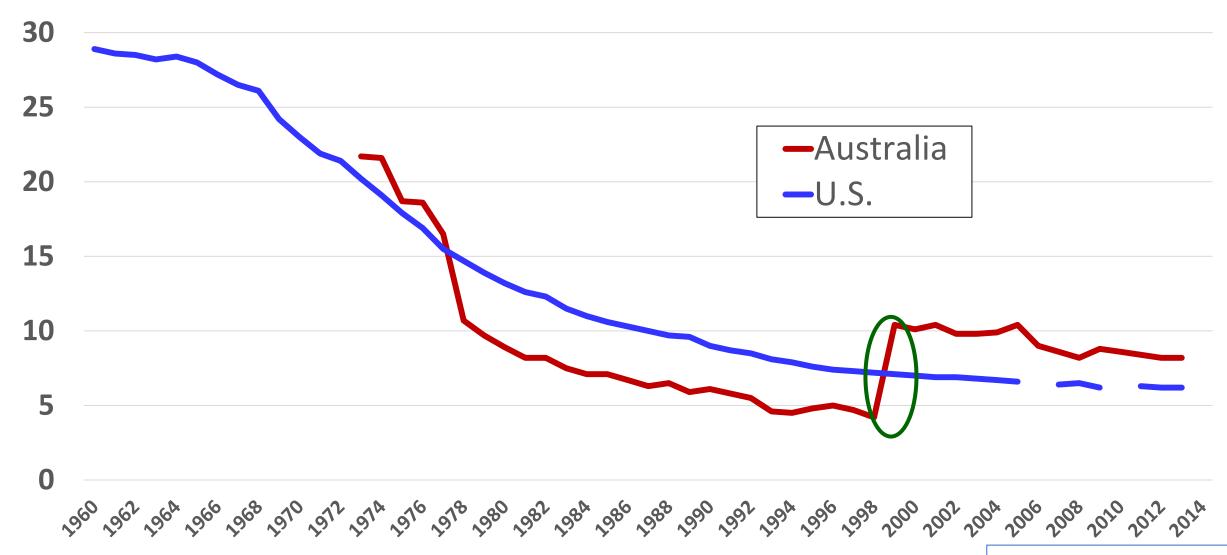
Source: OECD Health Data 2016

# Infant Mortality (per 1,000 live births), U.S. and Australia, 1960-2014



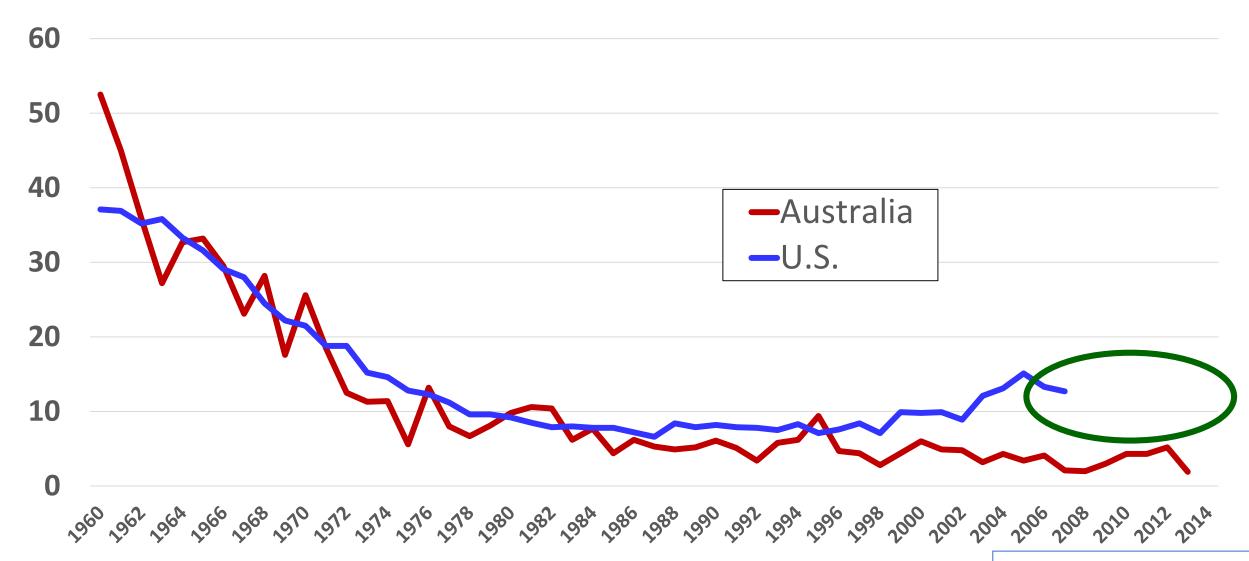
Source: OECD Health Data 2016

# Perinatal Mortality (per 1,000 live births), U.S. and Australia, 1960-2014



Source: OECD Health Data 2016

# Maternal Mortality Ratio (per 100,000 live births), U.S. and Australia, 1960-2014



Source: OECD Health Data 2016

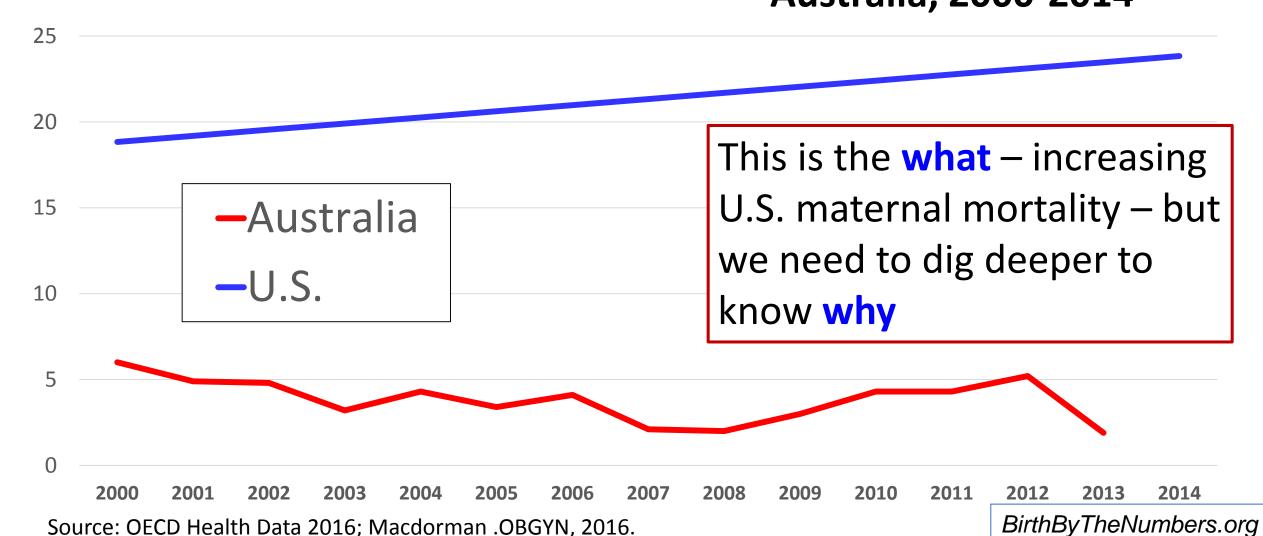
## Recent Increases in the U.S. Maternal Mortality Rate

Disentangling Trends From Measurement Issues

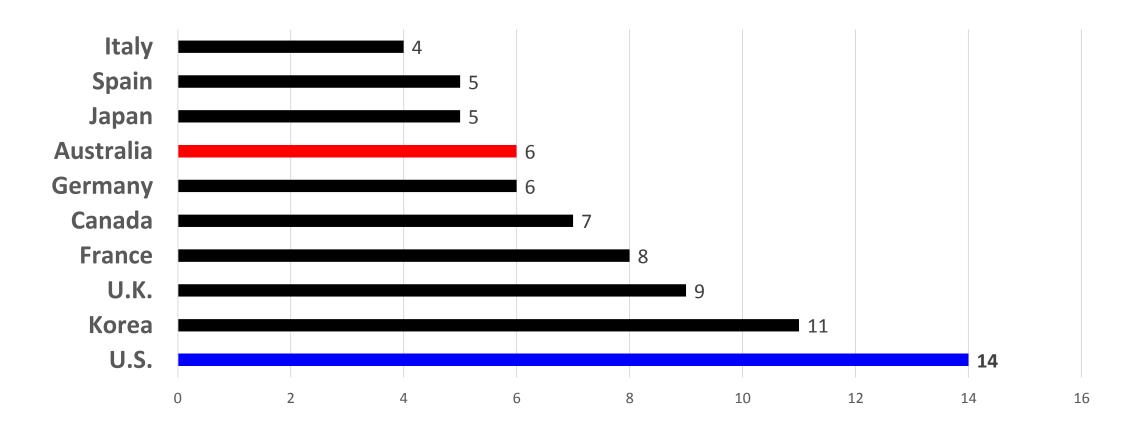
Marian F. MacDorman, PhD, Eugene Declercq, PhD, Howard Cabral, PhD, and Christine Morton, PhD

### **Maternal Mortality:**

Maternal Mortality Rates (per 100,000 live births) U.S. and Australia, 2000-2014



# U.S. & Australian MMR\* Compared to Countries with 300,000+ births, 2014, using WHO Estimates

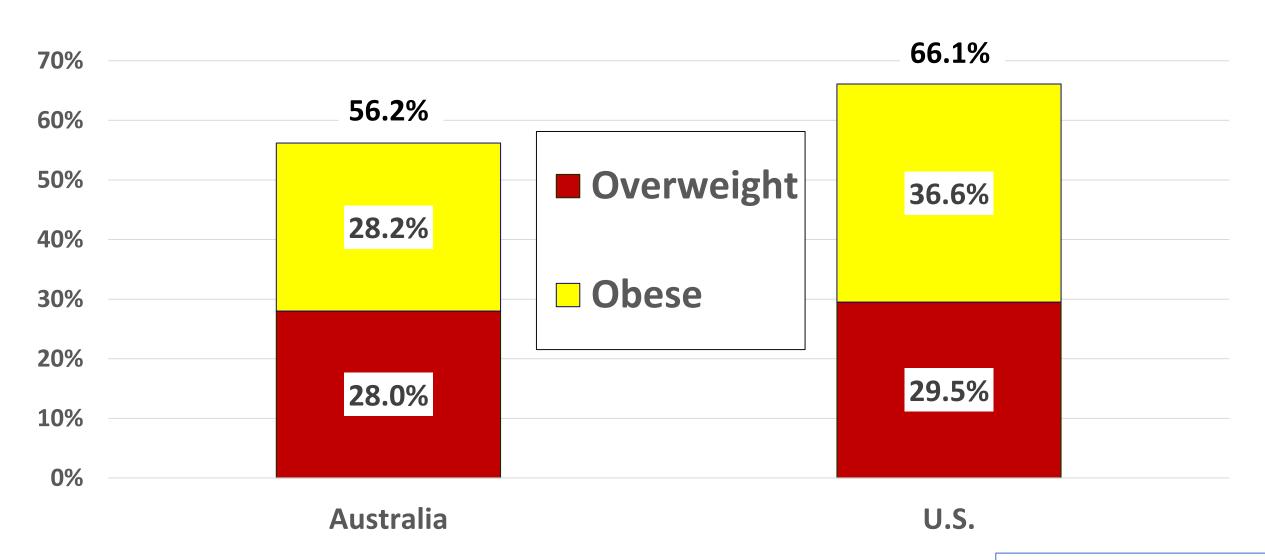


\* Maternal Mortality per 100,000 births

Source: Maternal Mortality: 1990 to 2015 Estimates by WHO, UNICEF, UNFPA, World Bank Group & UN Population Division. Geneva: 2015.

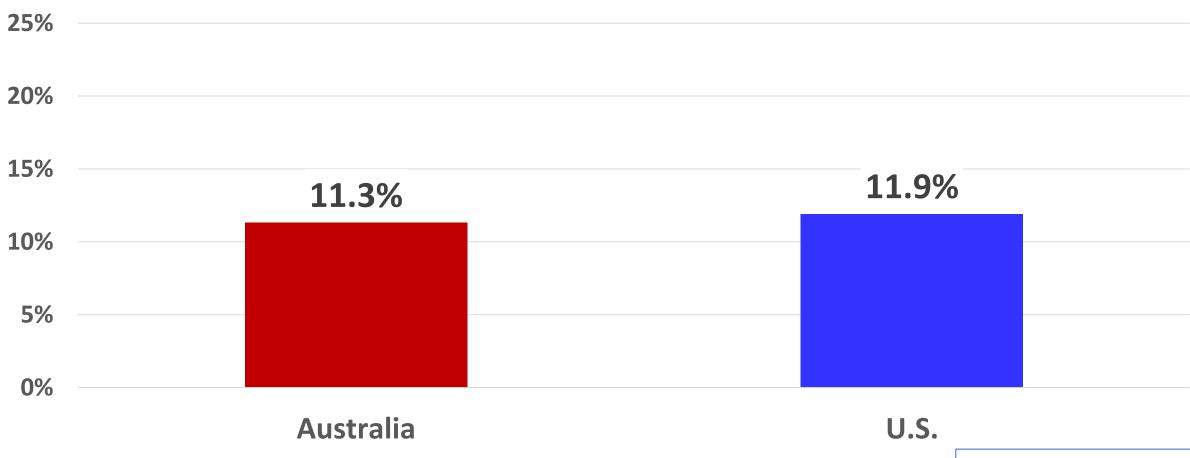
## **Behavioral measures**

## Female Overweight and Obesity, 2013



Source: OECD Health Data 2016

### Female 15+ Daily Smokers, 2013



Source: OECD Health Data 2016

# Why It's Important to Listen to Mothers

- Humbling because we find that they don't think like we do
- Maternal Attitudes Determine mothers' attitudes toward pregnancy, birth and the postpartum experience
- Mothers' Perspectives Document mothers' experience from their perspective
- Identify needs and who has them that wouldn't be known from other data sources
- Can get at the "Why?" question which is not possible from other sources which focus on "What?"
- Leads to better Design of Systems and better Outcomes

# So what can we learn from mothers that we can't learn from other sources?

## Let's go back a century for an example of the limits of using only secondary data

## Problem with an exclusive focus on quantitative data? Case of Birth Certificate Data

No 122 De clerce/ Cyrille Eugene albert Eufant legitime

Sept. 22, 1914

Le vindt un Schlambre mil neuf cent quatorze, qualte heures du Sair
Le vingt un Septembre mil neuf cent quatorze, quatre heures du Soir est né Cyrille Eugene albert du sexe masculin
de Engine Dicorre Declared vingt-trois ans Listerand, ne à Avelghem (Belgique)
et de Augusta Helene Dehullu, ningt trois and menagere, son spouse,
et de Angusta aacient zontimu, un gentralista (
domiciliés a Roncq, Sentier des marts, Nº12.
Dresse par Nous, le vingt-deut Ochtembre mil neuf cent quatorze
à nulle heures du matin sur présentation de l'enfant et déclaration faite
par Cyxille Declercy, quarante Sept ans, tisserand, demourant a koubaix, ayant assiste a l'accouchement
a koubaix agant assiste à l'acconchement
En présence de Trançois de Ludu, chauffeur, demeurant à Ronco
demourant à Nonco
et de Saul Cherry, feutreur, demeurant à Rouboix
demeurant à Roulionise
qui, lecture faite, ont signé avec le déclarant et Nous de sire l'eurent
maire de Roncy, le déclarant ayant déclare ne Javour
Jaul Cherry Dehullse Tement

# THE IMMIGRANT MIDWIVES OF LAWRENCE: THE CONFLICT BETWEEN LAW AND CULTURE IN EARLY TWENTIETH-CENTURY MASSACHUSETTS\*

Eugene Declercq and Richard Lacroix

1985

The Nature and Style of Practice of Immigrant Midwives in Early Twentieth Century

Massachusetts

Author(s): Eugene R. Declercq

Source: Journal of Social History, Vol. 19, No. 1 (Autumn, 1985),

Published by: Oxford University Press 1985

Public Health Then and Now

The Trials of Hanna Porn:
The Campaign to Abolish
Midwifery in Massachusetts

Eugene R. Declercq, PhD

#### **Birth Certificate Data**

Date of Birth, October 2124 1914
ser, male
Color (if other than white) white
Name (it named), Salvatore Rosso
Place of birth, No. // Middle Street
Name of Pather, Francisco Rosso Name of Mother, Rosaina Rosso
ocoara p
Age of Father, 29 Mother, Mosher, 28 mg
Residence of Parents, No. // Middle Street
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Birthplace of Father, Chal
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#### THE GROWTH OF MIDWIFE ACTIVITY IN LAWRENCE 1896-1914

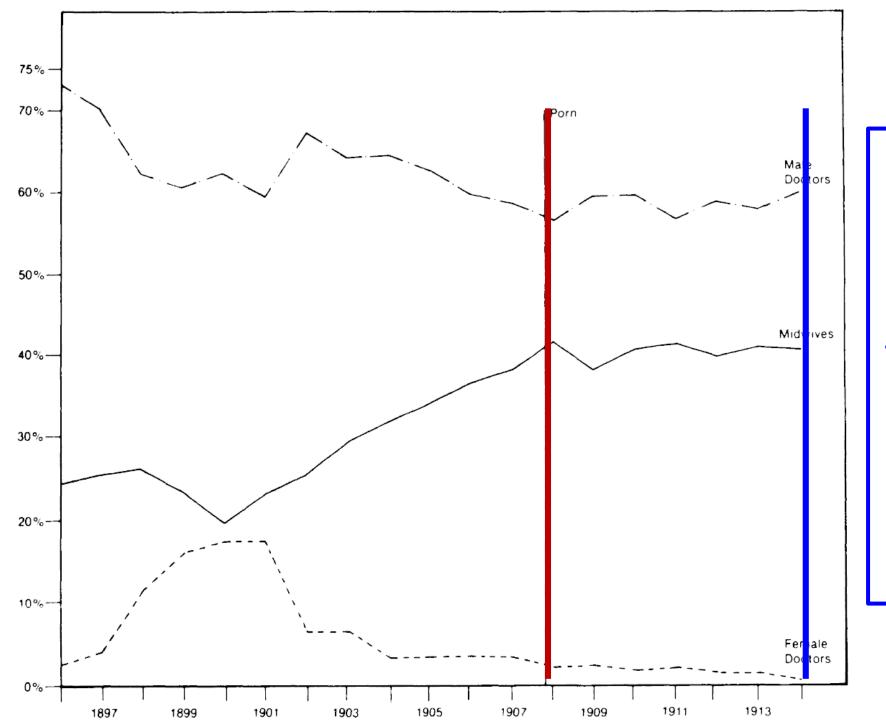
Year	Number of Midwives	Number of Active Midwives	Total Midwife Attended Births	Average Per Active MW	No. Deliveries by Leading MW	Leading MW Name	% of All Births Attended By Leading MW
1896	1	1	327	327	327	Louise Beck	100%
1897	1	1	285	285	285	»	100 %
1898	4	3	335	268	307	**	92 %
1899	6	4	290	73	112	**	39%
	-					Minnie	
1900	5	3	259	86	199	Riehm	77%
1901	7	5	324	65	229	"	71%
1902	11	5	368	74	180	*	49%
1903	8	4	500	125	238	77	48%
1904	7	6	537	90	210	*	39%
1905	7	4	569	142	192	77	34 %
						Hedwig	
1906	8	6	726	121	263	Himmer	36%
1907	11	8	810	101	272	**	34 %
1908	14	10	937	94	241	Riehm	26%
1909	11	8	885	111	292	Wicillii **	33 %
1910	14	9	1003	111		<del>31</del>	28%
1911	17	ģ	967	107	272 223	<del>71</del>	23 %
1912	18	10	940	94	185	**	20%
1913	20	13	1192	92	211	77	18%
1715	20	15	1172	72	211	Virginia	10 /0
1914**	18	12	869	72	162	Pedrazzini	19 %

#### BACKGROUND AND PRACTICE OF MAJOR MIDWIVES\*

Name	Birthplace	Years Documented Practice in Lawr.	Age when Docum. Lawr. Practice Begun	Total Record. Deliveries	Record Del. in Ave. Yr.
Louise Beck	Germany	1896-1899 <sup>1</sup>	**	1031	258
Concetta Carbonaro <sup>2</sup>	Italy	1906-1914 <sup>3</sup>	23	312	35
Laura Carpenito <sup>2</sup>	Italy	1908-1914	39	476	68
Ann Curran	Ireland	1899-1901	80	80	32
Angelina DeMarco <sup>5</sup>	Italy	1907-1914	50	80	68
Antonia Dyba	Austria	1910-1914 <sup>4</sup>	28	814	163
Hanarata Groele <sup>5</sup>	**	1911-1914	**	117	29
Hedwig Himmer	Germany	1898-1914	30	1866	109
Serafina Isabella	Italy	1901-1907	**	176	25
Louise Loppes <sup>5</sup>	Portugal	1901-1914	39	192	13
Angelina Lopiano	Italy	1901-1914	38	1601	114
Virginia Pedrazzini <sup>2,5</sup>	Italy	1907-1914	53	952	119
Minnie Riehm	Germany	1899-1914	30	3363	210
Paola Ripa <sup>2</sup>	Italy	1910-1914	46	171	34
Christine Shaheen <sup>5</sup>	Syria	1903-1905	37	62	21
Elena Stella	Italy	1907-1914	48	68	8

#### ETHNIC AND GEOGRAPHIC DISTRIBUTION OF MIDWIFE DELIVERIES

Name	Primary Ethnic Group Served	% all Del. from Primary Ethnic Group	Number of Precincts Worked in	% all Del. in Busiest Precinct	N*
Louise Beck	German	48%	29	16%	(291)
Concetta Carbonaro	Italian	100 %	9	62 %	(93)
Laura Carpenito	Italian	95 %	11	40%	(119)
Ann Curran	Irish	74 %	9	52 %	(42)
Angelina DeMarco	Italian	99 %	10	49 %	(121)
Antonia Dyba	Austrian/Polish	24 %	14	39 %	(228)
Hanarata Groele	Austrian	48%	8	32 %	(50)
Hedwig Himmer	Russian	23 %	29	12 %	(346)
Serafina Isabella	Italian	95%	5	51%	(37)
Louise Loppes	Portugese	48%	2	96%	(25)
Angelina Lopiano	Italian	98%	10	40%	(274)
Virginia Pedrazzini	Italian	99 %	13	55 %	(297)
Minnie Riehm	Russian	29%	34	23 %	(801)
Paola Ripa	Italian	100 %	9	59 %	(71)
Christine Shaheen	Syrian	100 %	2	79 %	(24)
Elena Stella	Italian	100 %	5	48%	(23)



But then another possible source of data turned up that could provide new insights

## Canvass of Births in City 1914 MA Birth Certificate

No 2357 CANVASSER'S RETURN OF A BIRTH

	ALL NAMES TO BE IN FULL
late of Birth	Oct 21, 1914 Rossi
tame of Child	Salvatore Russa
iax, Color and If Twis	male White Single
Noce of Birth	11 middle st ward
ull Name of Father	Francisco Russo 40 30
laiden Name of Mother	Rosaria Deinto 1.29
isoldence of Parents at Time of Birth	11 middle st ware!
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scupation of Methor	atHome
urthplace of Father .	Italy
urthplace of Mether	Italy.
Attending Physician	Virginia
Dated an	3 191 5
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#### **Birth Certificate Data**

Date of Birth, October 2184 1914
ser, male
Color (if other than white) white
Nama (it named), Salvatore Rosso
Place of birth, No. // Middle Street Name of Pather, Prosecutor Rosso
Name of Mother, Retains Roses
Maiden Name of Mother, Rasaria Sciuto
Age of Father, 29 years Mother, 28 mg
Residence al Parente, No. // Middle Street
Ward,
Occupation of Father, Mall Aprilial
Occupation of Mother (if say) Miles Aprinting
Occupation of Mother (if any) Mill Aprillary Birthplace of Father, Maly
Occupation of Mother (if say) Mill Aptistics  Birthplace of Father, Clark  Birthplace of Mother, Clark  I did personally attend the birth.
Occupation of Mother (if any) Mill Aprillary Birthplace of Pather, Clark Birthplace of Mother, Clark I did personally attend the birth.  (Signature), Constant Caliti
Occupation of Mother (if any) Mill Aptiation  Birthplace of Pather, Clark  Birthplace of Mother, Clark  I did personally attend the birth.  (Signature),  Constant Collies  Physician.
Occupation of Mother (if any) Mill Aptistical Birthplace of Father, Clark Birthplace of Mother, Clark I did personally attend the birth.  (Signature),  Constant Coliti

## Canvass of Births in City 1914 MA Birth Certificate

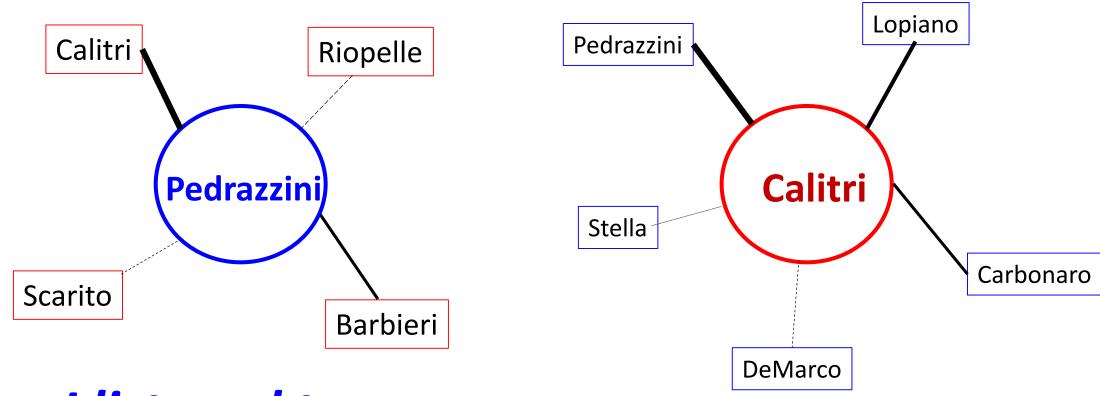
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urthplace of Father .	Italy
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Actending Physician	Virginia
Dated Jan	13 191 5
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\$c	. male
	for (if other than white) white
Ni	me (il named), Salvatore Rosso
Pl	ce of birth, No. 11 Middle street
	me of Pather, Francisco Russo
, Ne	me of Mocher, Rotaria Rossa
M.	idea Name of Mother, Radaria - Friesta
	o of Father, 29 Mars Mother, 28 mg
Re	idence al Parente, No. // Muddle Street
Oc	rupation of Father, Mill Operating
	rupation of Mother (if any) Mill Polisation
	hplace of Father, Male
	hplace of Mother, Clark
	gnature),
	Constant Caliti
_	Fill out with ma. ran manues to be in full.

## Gene's Brilliant Historical Data Analysis



Then I listened to someone – this was completely wrong

# So if listening to mothers provides new insights, who does it?

# National Surveys of Mothers Concerning Maternity Experiences

- Canada What Mothers Say: The Canadian Maternity Experiences Survey. 10/23/06-1/31/07. Primarily phone Interviews 6,421 mothers in a singleton birth (78% response rate).
- England Safely Delivered. 2014. 4/2014-6/14. Postal Survey. 4,571 (47% response rate). Primarily mail surveys
- Australia....sort of.



The NSW Maternity Care survey is asking women who gave birth in 2015 about their experiences in NSW public hospitals.

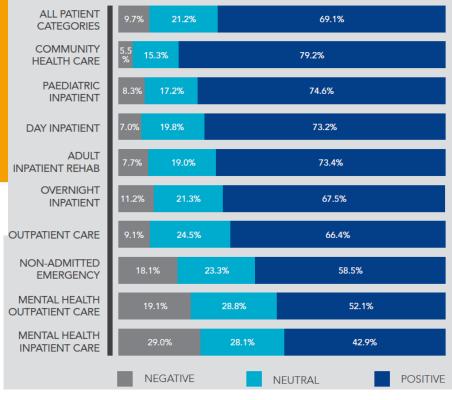
If you are one of the 15,000 women randomly surveyed, it's your opportunity to tell us what you think worked for you and what could have been done better. Your feedback is important and will be used to help improve maternity care for other women.

Bureau of Health Information
Maternity Care Survey

For more information visit bhi.nsw.gov.au



#### Breakdown of patient categories



## **Australia**



#### RESEARCH ARTICLE

What women want: qualitative analysis of consumer evaluations of maternity care in Queensland, Australia

Loretta C McKinnon<sup>1,2</sup>, Samantha J Prosser<sup>1,2</sup> and Yvette D Miller<sup>1,2\*</sup>

### Overall, how would you rate care you received at the hospital?



## Listening to Mothers III Pregnancy and Birth



Report of the Third National U.S. Survey of Women's Childbearing Experiences



Eugene R. Declercq Carol Sakala Maureen P. Corry Sandra Applebaum Ariel Herrlich

May 2013

## Listening to Mothers III New Mothers Speak Out



Report of National Surveys of Women's Childbearing Experiences Conducted October - December 2012 and January - April 2013



Eugene R. Declercq Carol Sakala Maureen P. Corry Sandra Applebaum Ariel Herrlich

June 2013

### **Survey Data**

- 2400 mothers 18-45 who had given birth to single babies in a U.S. hospital from July 1, 2011 through June 30, 2012 completed the 30 minute survey online in English.
- The data were adjusted with demographic and propensity score weightings using methodology developed and validated by Harris Interactive with results generally representative of U.S. mothers on age, race/ethnicity, parity, birth attendant and mode of birth.
- Mothers who completed the initial survey were recontacted and invited to complete a follow-up survey between January 29 and April 15, 2013. A total of 1072 mothers, or 45% of the initial participants, were reached and completed the survey.

# So what would a Maternity Care System Look Like if we Listened to Mothers?

## What would a Maternity Care System Look Like if we Listened to Mothers?

1. Careful, accurate prenatal diagnosis

(The case of the "Big Baby")

2. Choice in the Place of Birth

3. Choice in Method of Delivery

(The case of the vanishing VBAC)

# What would a Maternity Care System Look Like if we Listened to Mothers?

4. Opportunity for Shared decision making (Induction and repeat cesareans)

5. Support for their method of infant feeding (Hospital support for breastfeeding)

**Bonus Material!** 

#### 1. Careful, Accurate Prenatal Diagnosis

I would like my maternity care provider to tell me about the risks associated with each option so I know how each could affect me.

Strongly Agree	36%
Agree	55%
Disagree	7%
Strongly Disagree	2%

Source: Listening to Mothers 3

# 1. Careful Accurate Prenatal Diagnosis The rise of the big baby



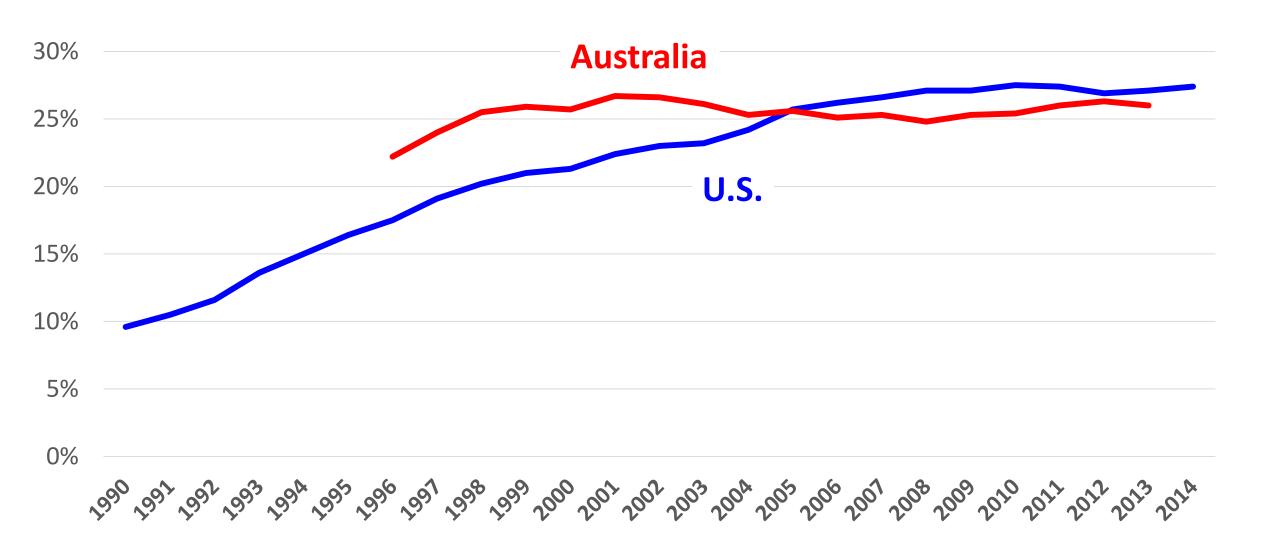
The rise of the big baby



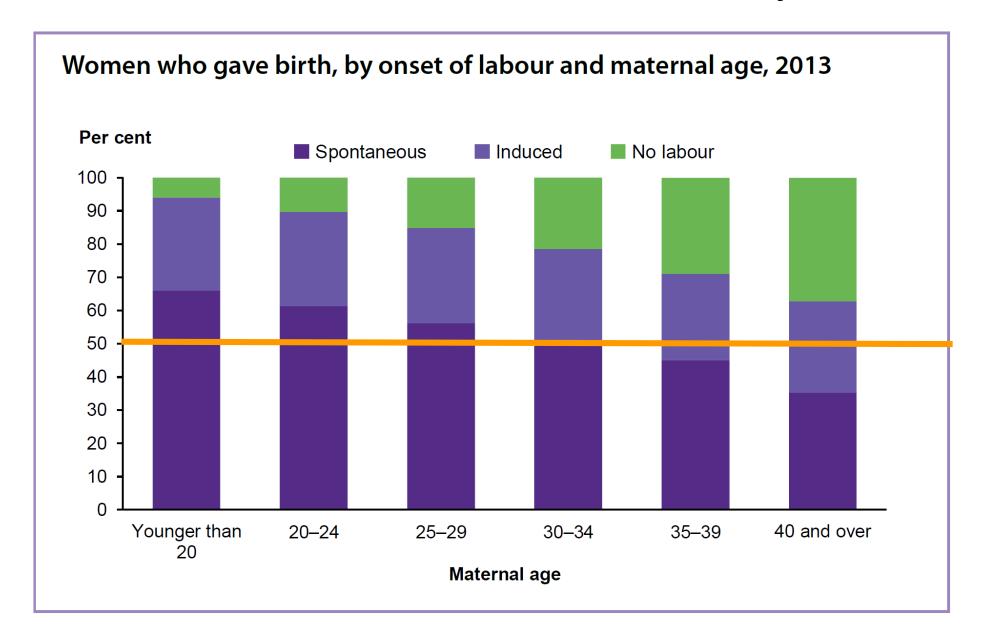
#### **Labor Induction**

- Three in ten (29%) mothers tried to start their labor on their own.
- More than four out of ten respondents (41%)
   indicated that their care provider tried to induce
   their labor
- Three out of four of those women (74%) indicating that it did start labor, resulting in an overall rate of medically induced labor of 30%.

#### Inductions in U.S., & Australia, 1990-2014



#### Australia Mothers and Babies, 2013



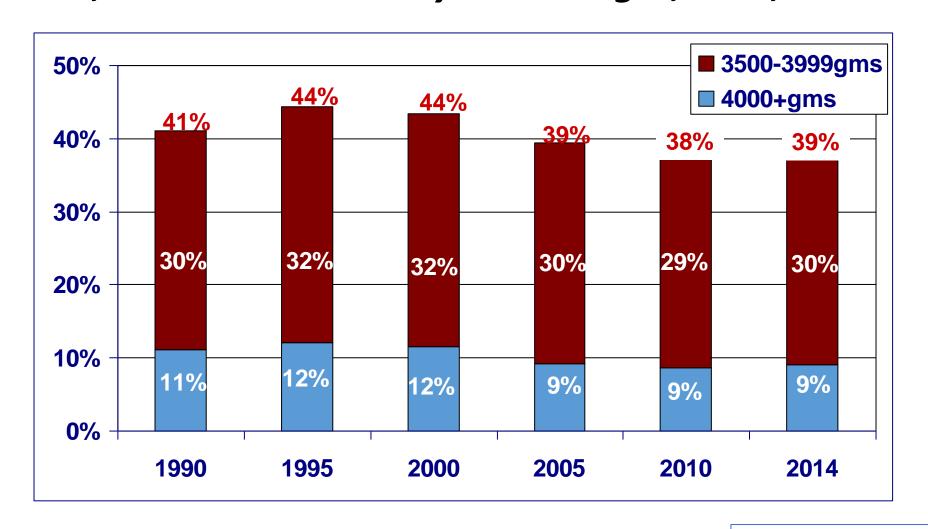
#### Reasons why mothers experienced medical induction

Base: care provider tried to induce labor <i>n</i> =991	
Baby was full term/close to due date	44%
Mother wanted to get pregnancy over with	19%
Care provider was concerned that mother was "overdue"	18%
Maternal health problem that required quick delivery	18%
Care provider was concerned about the size of the baby	16%
Water had broken and there was a concern about infection	12%
Mother wanted to control timing of birth for work or other personal reasons	11%
Care provider was concerned that amniotic fluid around the baby was low	11%
Care provider was concerned that baby was not doing well	10%
Mother wanted to give birth with a specific provider	10%
	1

#### Reasons for primary and repeat cesarean birth

Base: had cesarean n=744 (choose reason that best applies)	Primary cesarean n=368	Repeat cesarean n=376
I had had a prior cesarean (asked of prior cesarean only)	n.a.	61%
Baby was in the wrong position	16%	3%
Fetal monitor showed the baby was having problems during labor	11%	3%
I had a health condition that called for procedure	10%	13%
Baby was having trouble fitting through	10%	2%
Maternity care provider worried the baby was too big	9%	2%
Provider tried to induce labor but it didn't work	8%	3%
Problem with the placenta	8%	2%
Labor was taking too long	7%	2%
Past my due date	3%	-
Afraid to labor and have baby vaginally	3%	-
No medical reason	4%	3%

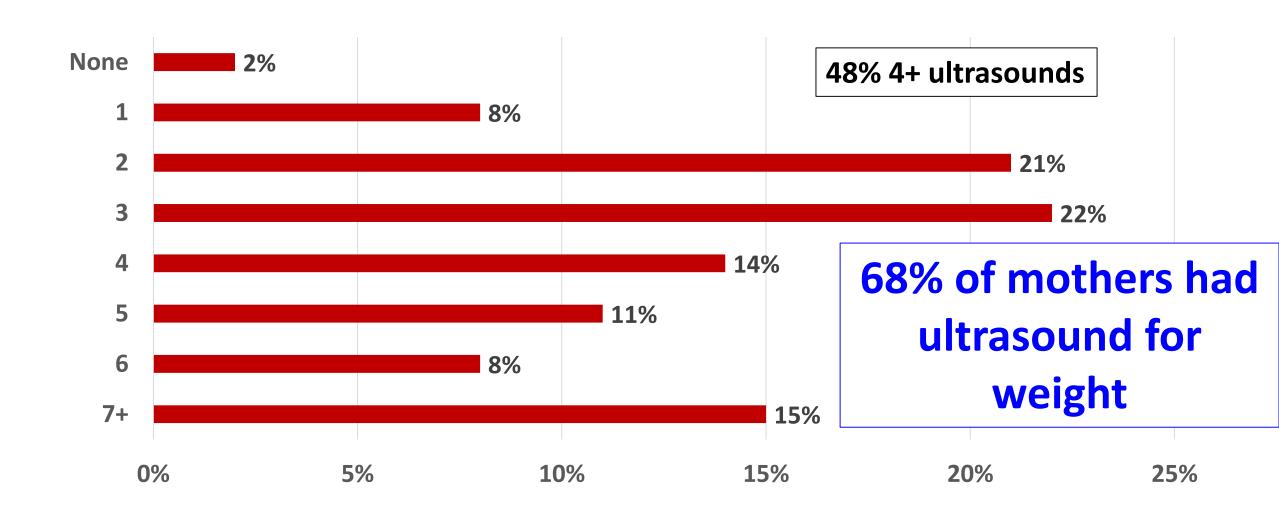
### Are U.S. Babies Getting Bigger?...NO! % Singleton, Full Term Babies by Birthweight, U. S., 1990-2014



Source: Centers for Disease Control and Prevention.

www.BirthByTheNumbers.org

#### **Number of Ultrasounds**



#### What's with these Big Babies?

Near the end of your pregnancy, did your maternity care provider tell you that your baby might be getting quite large?

31.2% YES	ALL	Yes	No
Actual Weight	7 lbs	7 lbs	7 lbs
	5 ounces	14 ounces	1 ounce
Baby Actually Macrosomic (8lb 13ounces)	9.9%	19.7%	5.5%

Source: Cheng et al. Healthcare Utilization of Mothers with Suspected Large Babies. MCH Journal. 2015. 19:2578–2586

### What's the impact of being told you might have a big baby?

Labor and Delivery Outcomes

	Suspected Large Baby		
	<u>Yes</u>	<u>No</u>	
	<u>%</u>	<u>%</u>	
Tried Self Induction of Labor	43.0	24.7	***
Medical Induction of Labor	70.1	51.1	***
Cesarean Delivery	21.1	18.1	NS
Epidural Analgesia	72.7	61.7	***
Requested Cesarean	22 5	<i>C</i> 0	***
Delivery	32.5	6.8	

<sup>\*\*\*</sup>p < .001

BirthByTheNumbers.org

### Likelihood of Labor or Delivery Outcomes Controlling for Key Variables

Self Induced Labor – almost twice as likely

Medical Induction – almost twice as likely

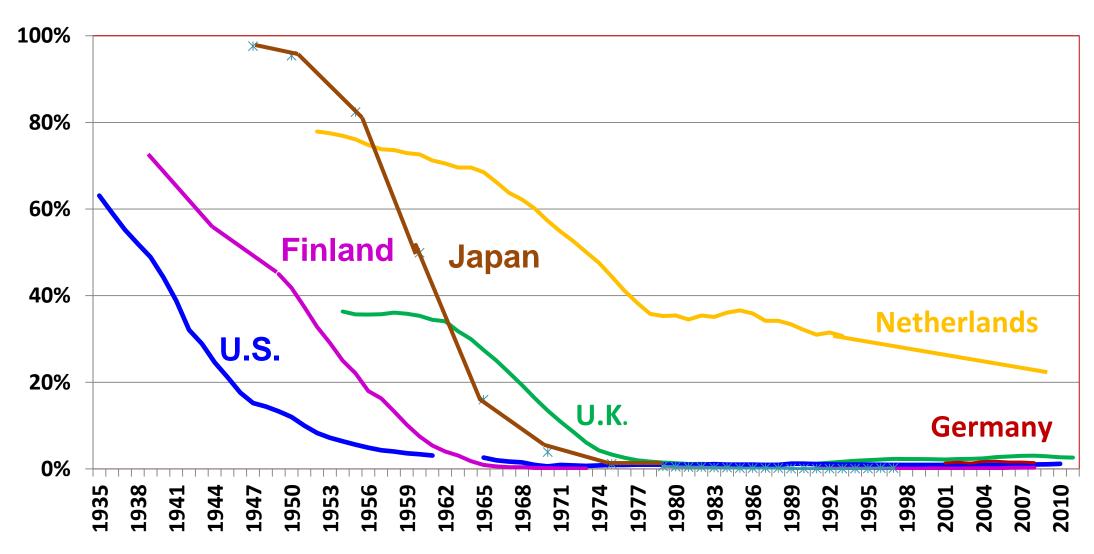
Epidural – twice as likely

Requesting a cesarean – 4 times as likely

# Would have never discovered this phenomenon if we didn't listen to mothers

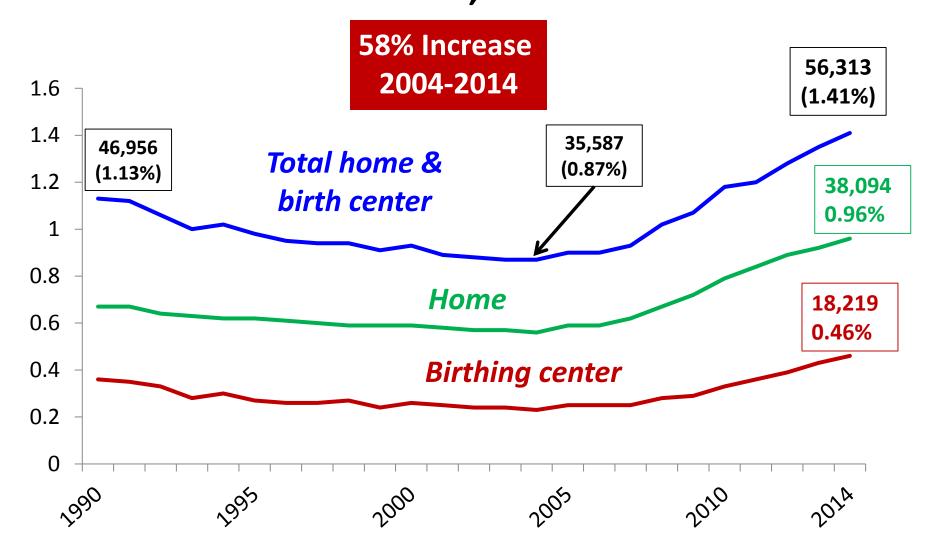
# 2. Mothers' Interest in Alternatives for Place of Birth

### Out of Hospital Birth Rates, Selected Countries, 1935-2010



Sources: National Vital Statistics and Birth Reports, various countries.

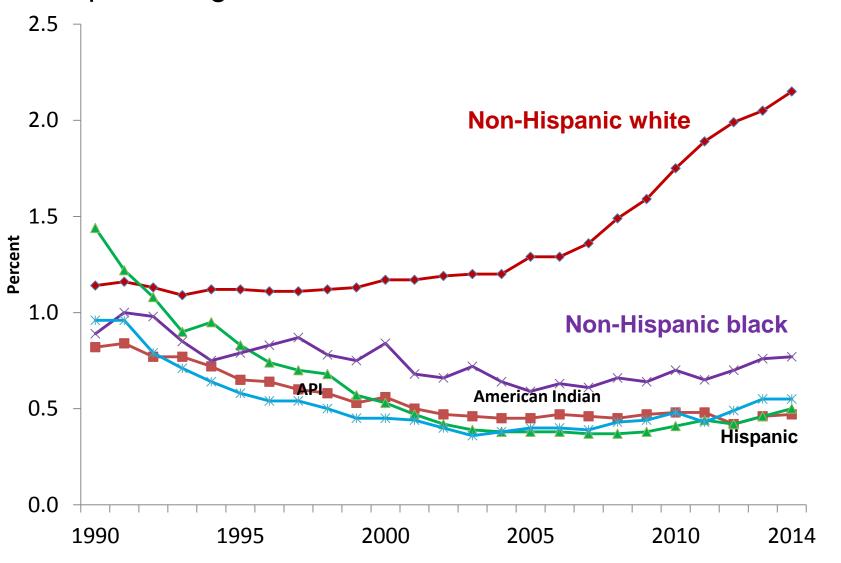
### Percent of all births at home, or in a birthing center, United States, 1990-2014



Source: NCHS Annual Birth Reports & CDCVitalStats. http://www.cdc.gov/nchs/nvss.htm

BirthByTheNumbers.org

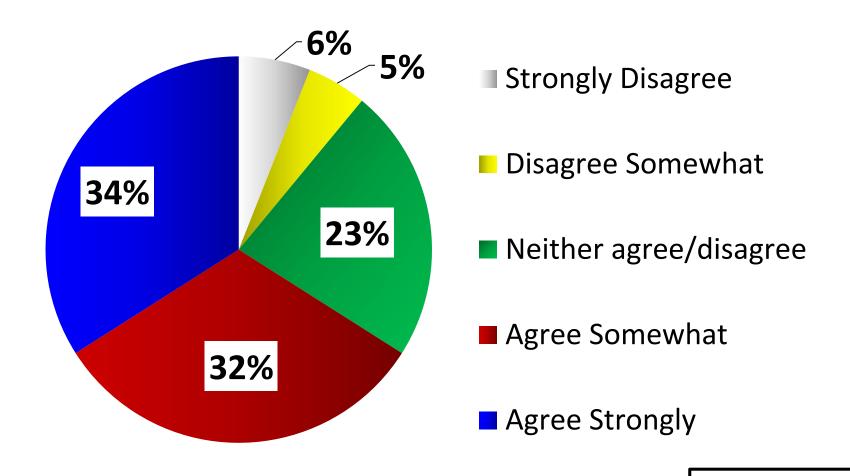
### Percentage of births occurring outside a hospital by race and Hispanic origin of mother, United States, 1990-2014



What can
surveys add
to this
information?

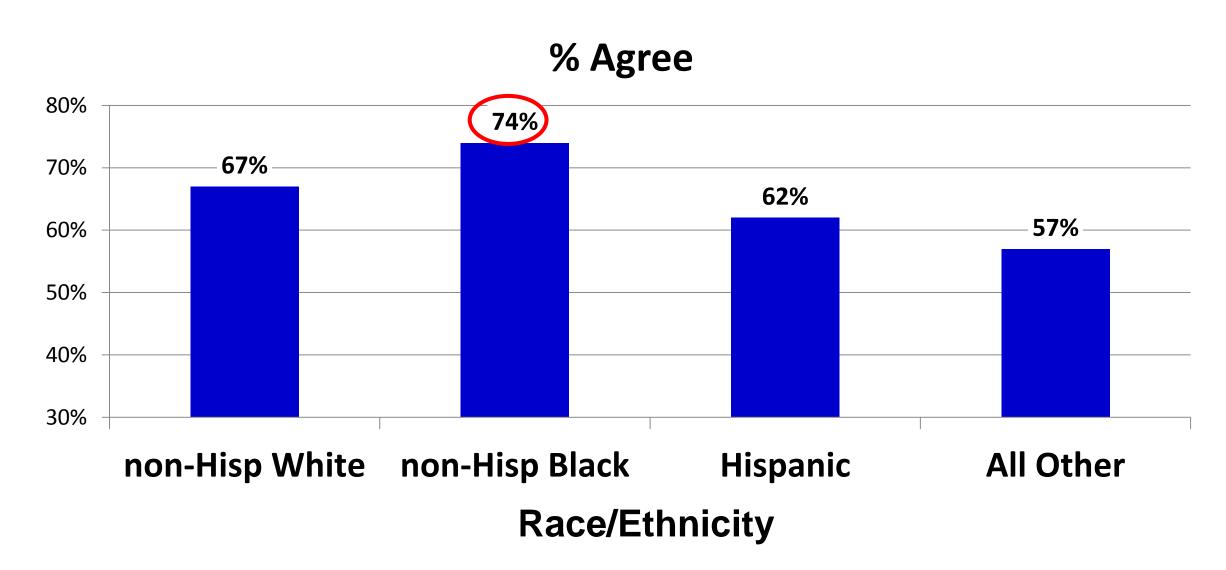
Notes: Non-Hispanic white, Non-Hispanic black and Hispanic data exclude New Hampshire in 1990-92 and Oklahoma in 1990, as these states did not report. Hispanic origin on their birth certificates for those years. API denotes Asian or Pacific Islander. Source: Birth certificate data from the National Vital Statistics System.

### If a woman wants to have her baby at home, she should be able to do so.

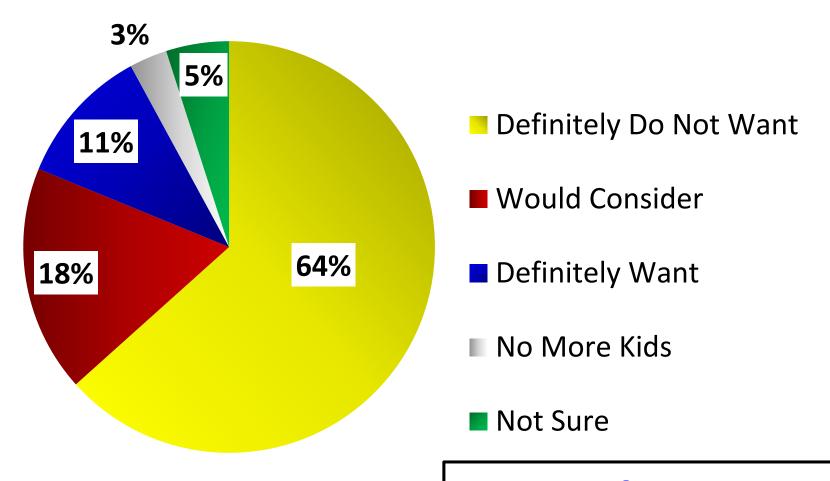


66% Agree

### If a woman wants to have her baby at home, she should be able to do so.

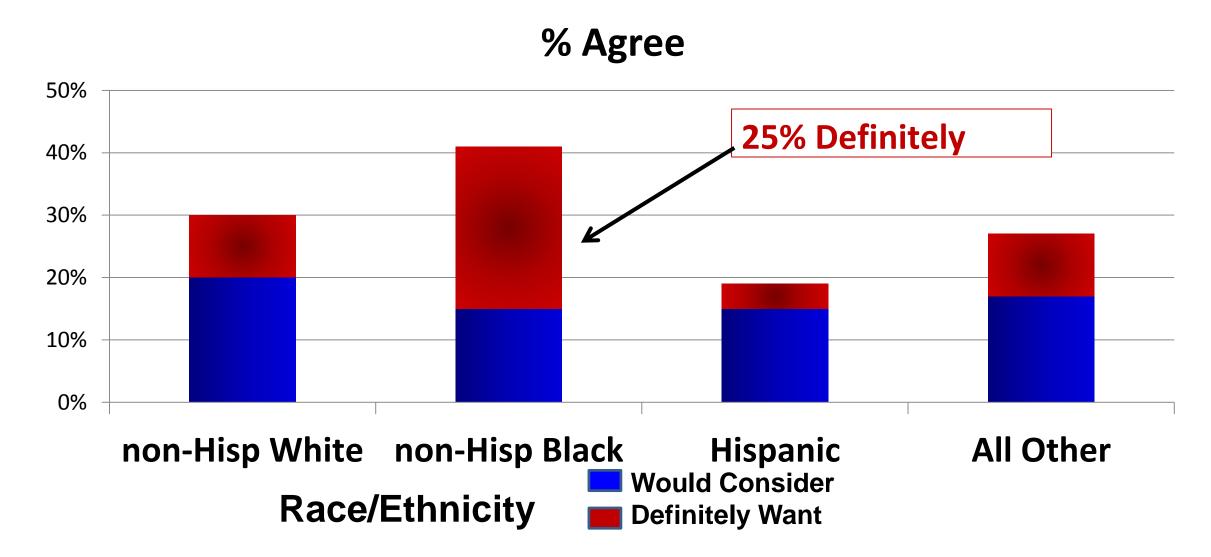


# For any future births, how open would you be to giving birth at home?



29% At least Consider

# For any future births, how open would you be to giving birth at home?

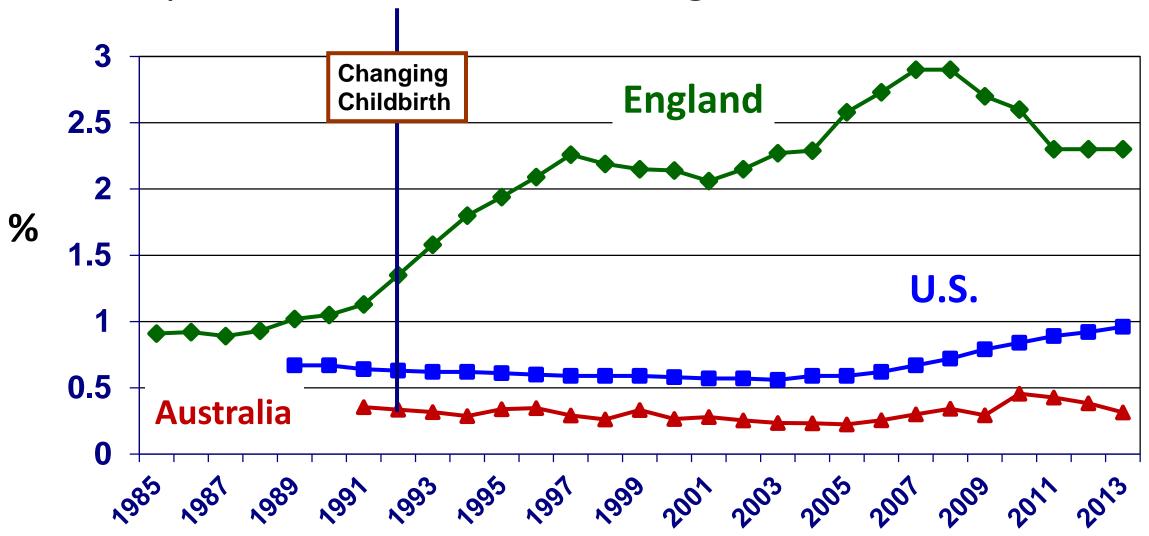


 So home births are really rising in the U.S. and some industrialized countries. In absolute numbers there are more home births in the U.S. than in the Netherlands.

This trend will keep going right?

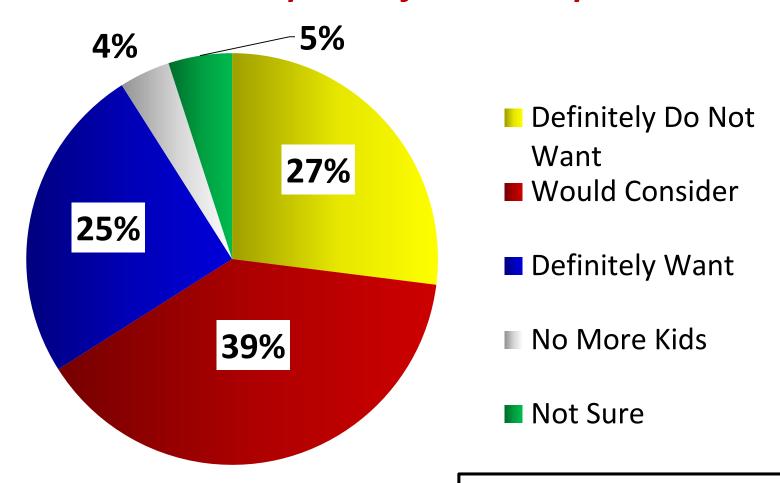
#### Not too much more

Proportion of Home Births, England, U.S., Australia



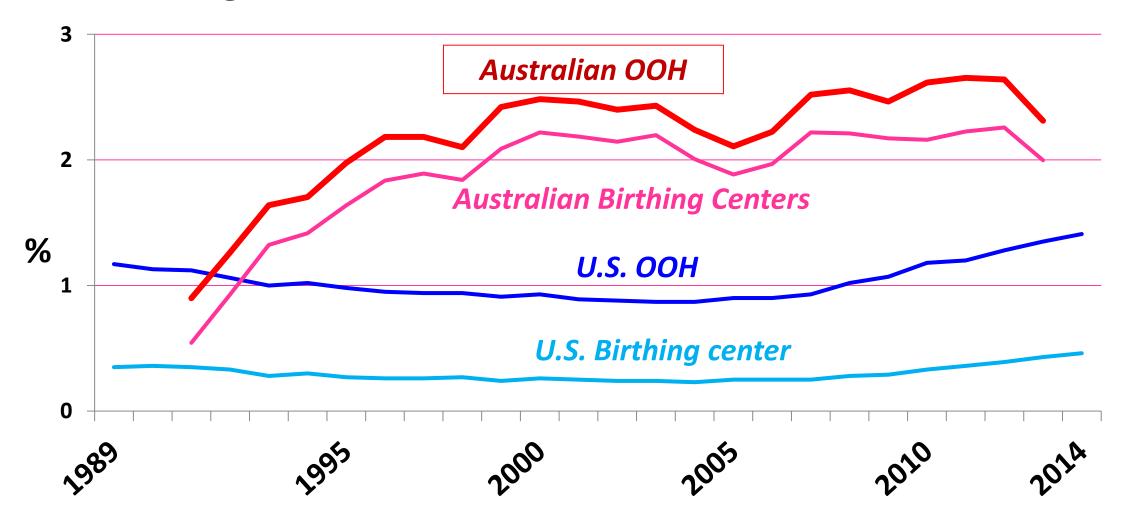
#### EVEN GREATER INTEREST IN BIRTH CENTERS

For any future births, how open would you be to giving birth at a birth center that is separate from a hospital?



**64% At least Consider** 

Figure 1 Percent of all births Out of Hospital & in a birthing center, United States & Australia, 1991-2014

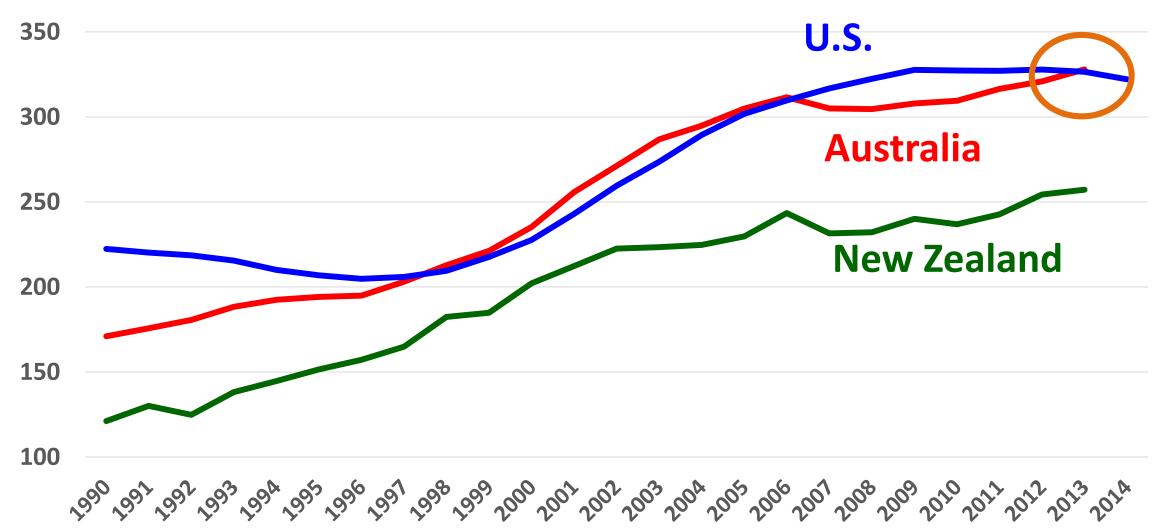


Source: Adapted from data in NCHS Annual Birth Reports, CDCVitalStats & Australian Mothers and Babies Reports

# 3. Choice in Method of Delivery

(Mothers' Experience with Vaginal Birth After Cesarean)

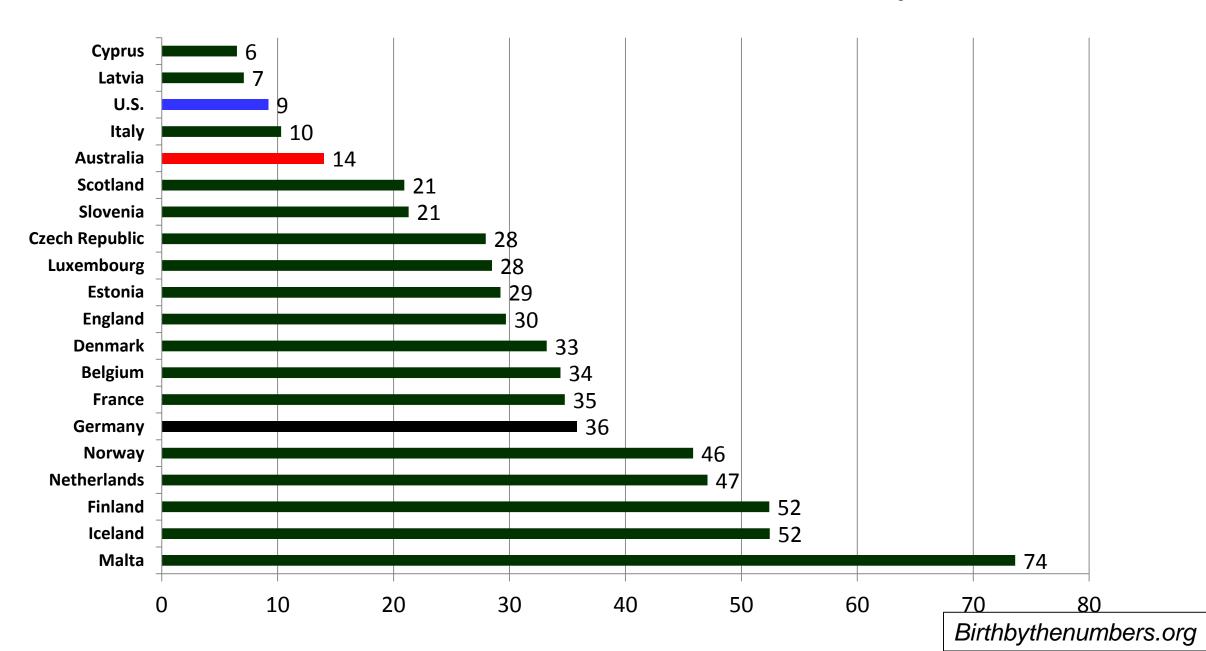
# Cesarean Section Rates (per 1000 births), Australia, U.S. and New Zealand, 1990-2014



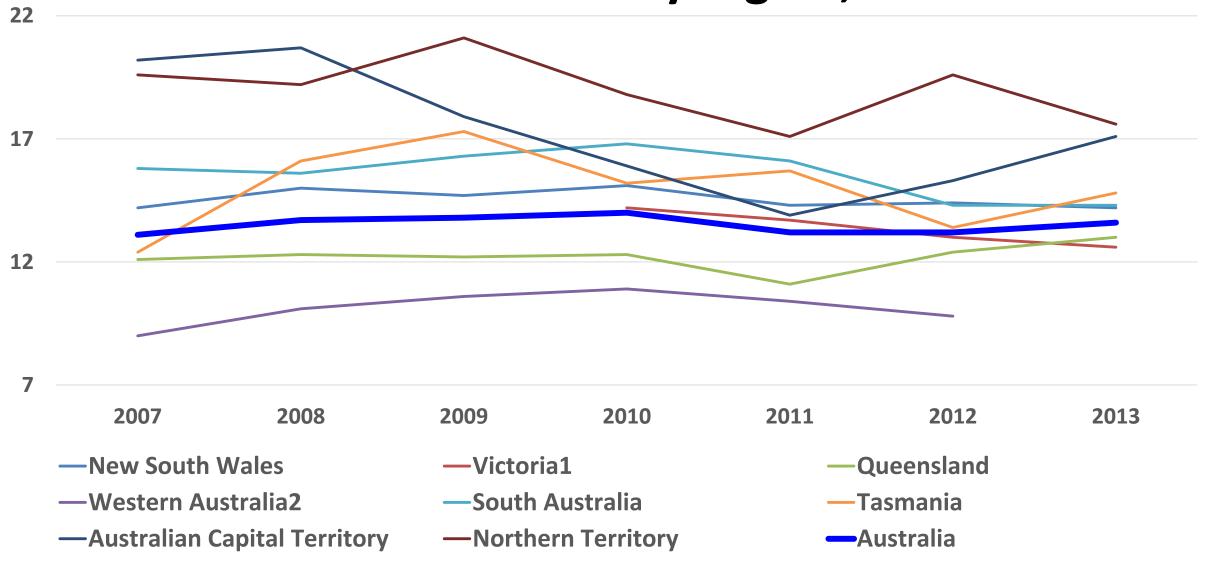
Source: OECD Health Data 2016

#### Insert Australian state CS slides here

#### VBAC Rates Industrialized Countries, 2010

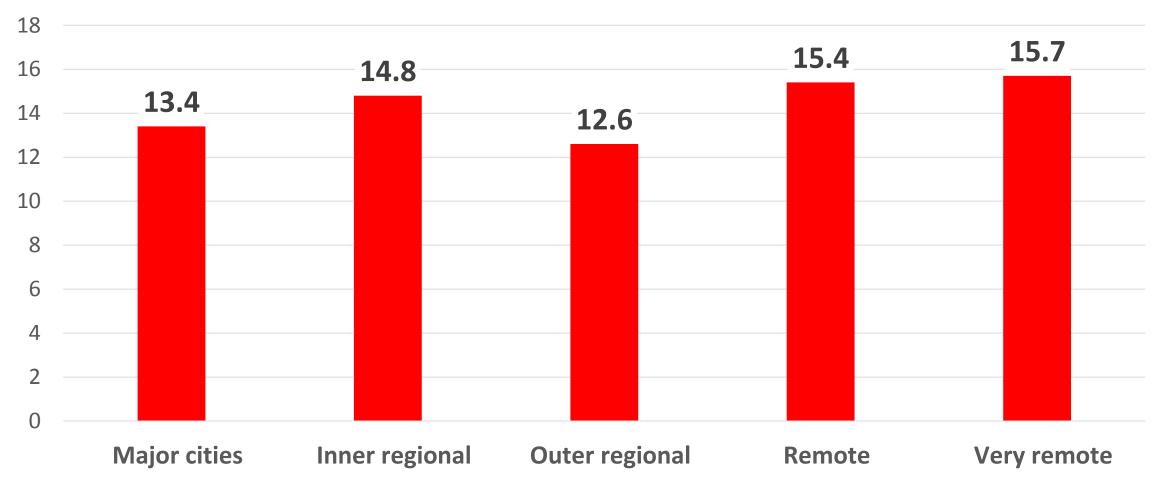


#### Australian VBAC Rates\* by region, 2007–2013



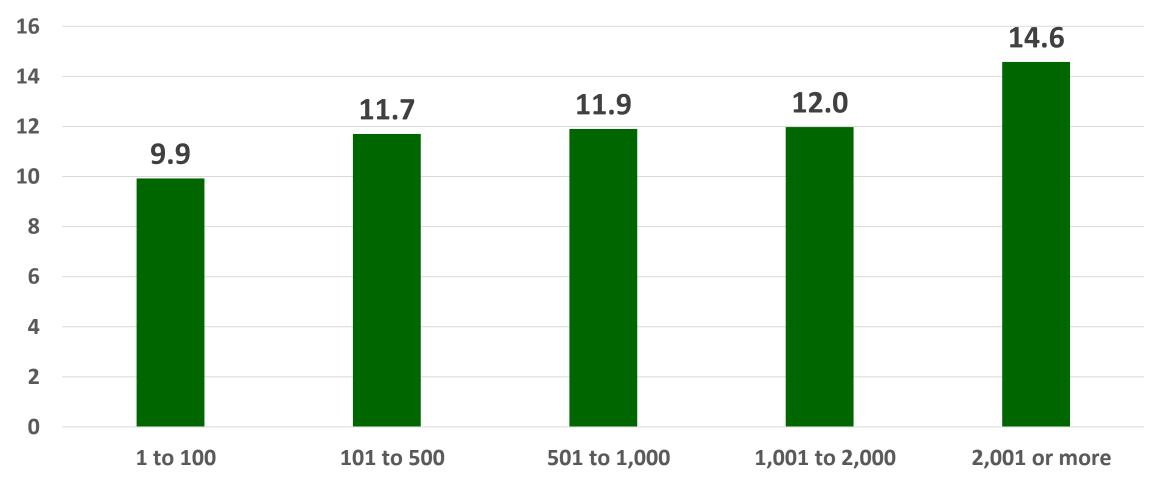
<sup>\* %</sup> Vaginal births among women with one prior cesarean

## VBAC Rates\* by remoteness of mother's area of usual residence, Australia, 2013



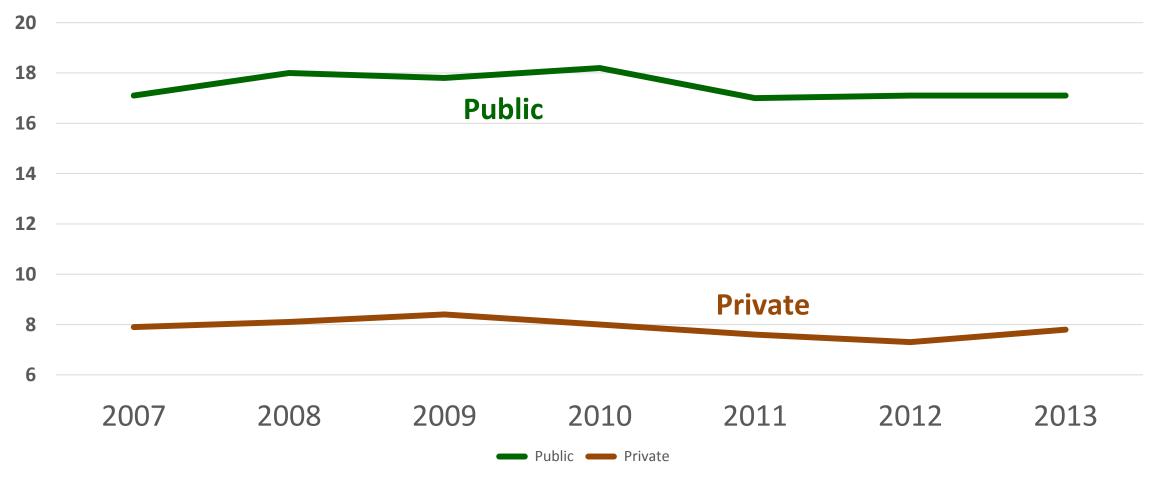
\* % Vaginal births among women with one prior cesarean

### Average VBAC Rates\* by hospital annual number of births, Australia, 2010–2013



\* % Vaginal births among women with one prior cesarean

# Australian VBAC Rates\* by hospital sector, 2007-2013



\* % Vaginal births among women with one prior cesarean

### Back to the U.S.

### Bulletin followed an NIH Consensus Meeting and Publication of Evidence Report

THE AMERICAN COLLEGE OF OBSTETRICIANS AND GYNECOLOGISTS

WOMEN'S HEALTH CARE PHYSICIANS



### PRACTICE BULLETIN

#### CLINICAL MANAGEMENT GUIDELINES FOR OBSTETRICIAN—GYNECOLOGISTS

Number 115, August, 2010

(Replaces Fractice Bulletin Number 34, July 2004 and Committee Opinion Number 342, August 2006), Reaffirmed 2013 Committee on Practice Bulletins—Obstetrics. This Practice Bulletin was developed by the Committee on Practice Bulletins—Obstetrics with the assistance of William Grobman, MD, and Jeffrey Ecker, MD. The information is designed to aid practitioners in making decisions about appropriate obstetric and gynecologic care. These guidelines should not be construed as dictating an exclusive course of treatment or procedure. Variations in practice may be warranted based on the needs of the individual patient, resources, and limitations unique to the institution or type of practice.

PDF Format

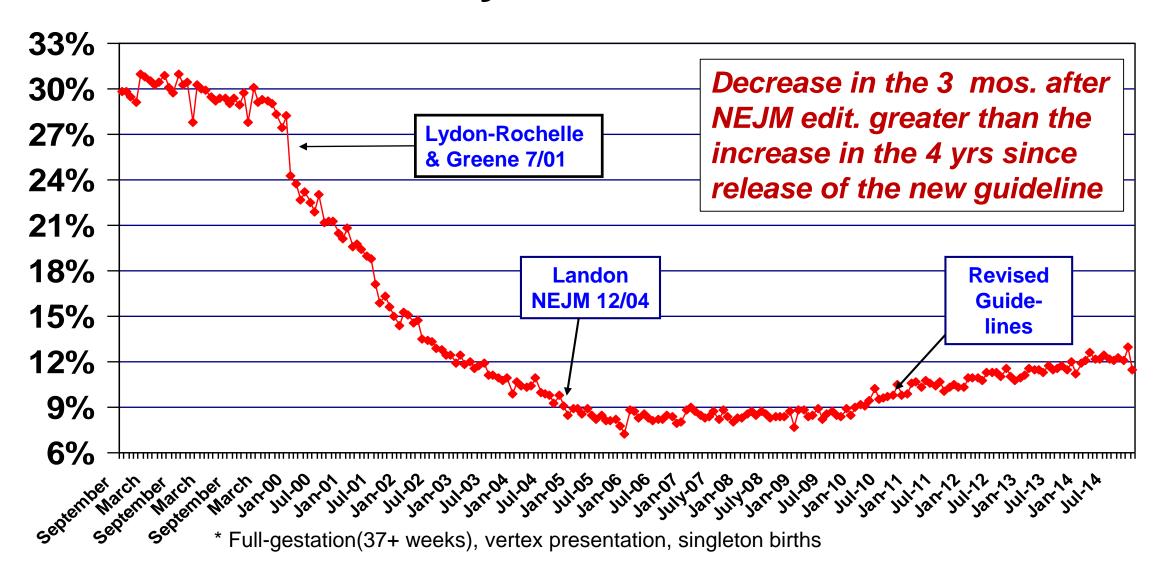
Vaginal Birth After Previous Cesarean Delivery

#### Summary of Recommendations

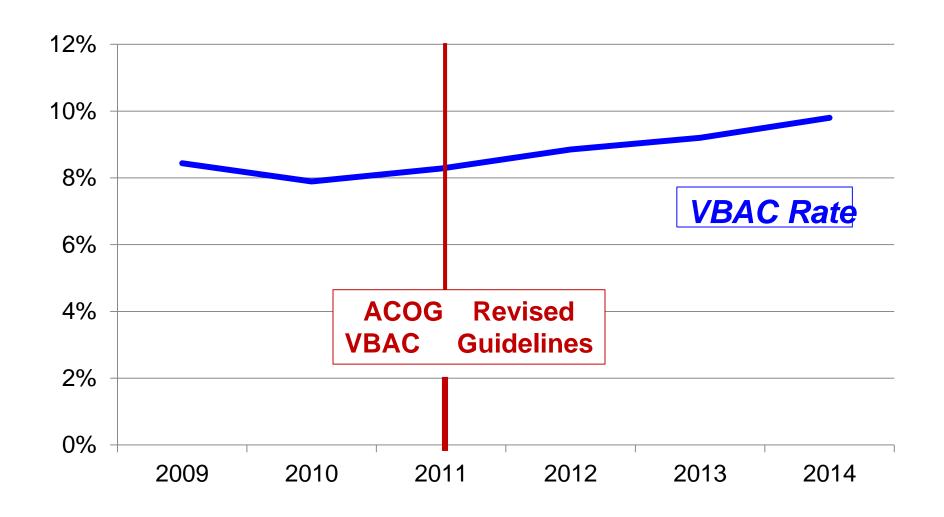
The following recommendations are based on good and consistent scientific evidence (Level A):

Most women with one previous CD with a low-transverse incision are candidates for and should be counseled about VBAC and offered TOLAC.

### % VBAC Lower Risk\* Mothers, U.S., Monthly Rates, 2000-2014



### VBAC Rate Low Risk Births\*, 28 States with revised Birth Certificate, 2009-2014



<sup>\*</sup> Singleton, Vertex, Gest Age 37+ weeks, 1 cesarean.

# If ACOG puts out new guidelines, why so little effect?

Need to ask mothers!

#### Mothers' Interest in and Access to VBACs

LTMI 2000-02	LTMII 2005	LTMIII 2011-12
n.a.	45%	48%
42%	<b>52%</b>	56%
	2000-02 n.a.	2000-02 2005  n.a. 45%

**New VBAC Guidelines** 

#### U.S. Mothers Report of Experience Seeking a VBAC, 2000, 2005, 2012

Mother had cesarean in the past, and did not have the option of a VBAC for recent birth.	LTMI 2000-02	LTMII 2005	LTMIII 2011-12
Did not have the option because caregiver was unwilling to do a VBAC	36%	45%	24%
Did not have the option because hospital was unwilling to allow a VBAC	12%	23%	15%
Medical reason unrelated to prior cesarean	38%	20%	45%

Source: *Listening to Mothers 3*.

**New VBAC Guidelines** 

## **Are Mothers asking for Primary Cesareans?**

Have maternal request cesareans played a major role in increased cesareans?

## Two Components to Maternal Request Primary Cesarean

1. Mother made request for planned cesarean before labor

2. Cesarean for no medical reason

#### Reasons for primary and repeat cesarean birth

(choose reason that best applies))

Base: had cesarean n=744	Primary cesarean n=368	Repeat cesarean n=376
I had had a prior cesarean (asked of prior cesarean only)	n.a.	61%
Baby was in the wrong position	16%	3%
Fetal monitor showed the baby was having problems during labor	11%	3%
I had a health condition that called for procedure	10%	13%
Baby was having trouble fitting through	10%	2%
Maternity care provider worried the baby was too big	9%	2%
Provider tried to induce labor but it didn't work	8%	3%
Problem with the placenta	8%	2%
Labor was taking too long	7%	2%
Past my due date	3%	-
Afraid to labor and have baby vaginally	3%	-
No medical reason	4%	3%

## **Patient Choice Primary Cesareans**

 Combining reason for cesarean and timing of decision found only about 1% of respondents had a planned primary cesarean for no medical reason.

"I think that [cesarean] is... the best way ... to give birth. It is a planned way, no hassle, no pain, the baby doesn't struggle to come out, the baby is not pressed to come out ...I think that ... everybody should have the baby by cesarean section." (quote from LtM2)

Studies from England, Canada and U.S. states confirm very low rates of maternal request cesareans

# 4. Opportunity for Shared decision making (Induction and repeat cesareans)

## Decision-Making Process Reported by Medicare Patients Who Had Coronary Artery Stenting or Surgery for Prostate Cancer

Floyd J. Fowler Jr PhD<sup>1,2</sup>, Patricia M. Gallagher, PhD<sup>1</sup>, Julie P. W. Bynum, MD<sup>3,7</sup>, Michael J. Barry, MD<sup>2,4</sup>, F. Leslie Lucas, PhD<sup>5</sup>, and Jonathan S. Skinner, PhD<sup>6,7</sup>

<sup>1</sup>Center for Survey Research, University of Massachusetts Boston, Boston, MA, USA; <sup>2</sup>Foundation for Informed Medical Decision Making, Boston, MA, USA; <sup>3</sup>Department of General Internal Medicine, Dartmouth Hitchcock Medical Center, Hanover, NH, USA; <sup>4</sup>General Medicine Division, Massachusetts General Hospital, Boston, MA, USA; <sup>5</sup>Center for Outcomes Research, Maine Medical Center, Portland, ME, USA; <sup>6</sup>Department of Economics, Dartmouth College, Hanover, NH, USA; <sup>7</sup>The Dartmouth Institute, Dartmouth College, Hanover, NH, USA.

#### **Original Investigation**

## How Patient Centered Are Medical Decisions? Results of a National Survey

Floyd J. Fowler Jr, PhD; Bethany S. Gerstein, BA; Michael J. Barry, MD

### Patient Centered care requires....

"...... a partnership between the provider and the patient with shared power and responsibility in decision making and care management [and] giving the patient access to understandable information and decision support tools that help patients manage their health and navigate the health care delivery system."

Source: Department of Health and Human Services. National Strategy for Quality Improvement in Health Care. 2011.

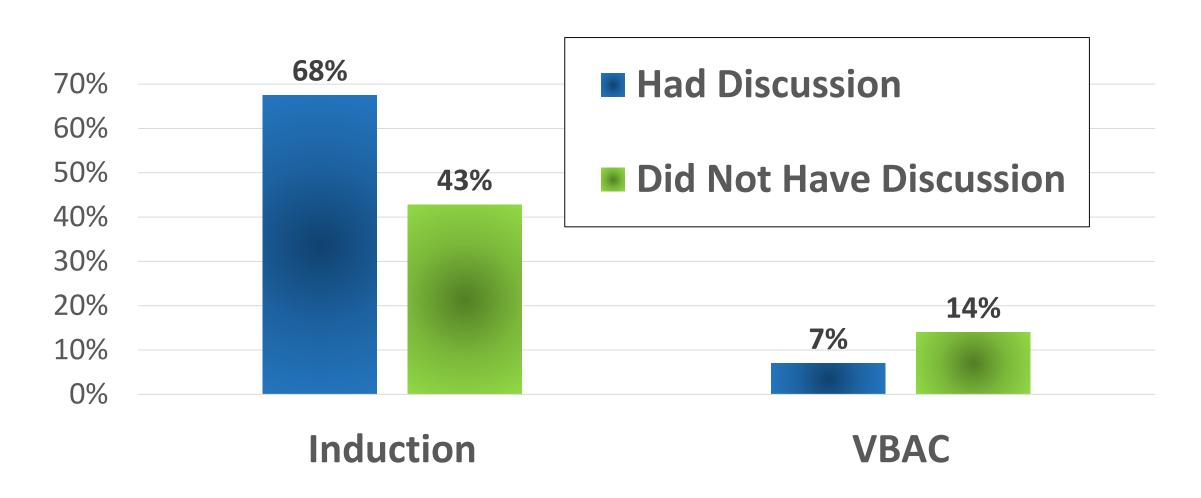
#### Mothers' experiences of making labor & birth decisions

Induction mentioned because baby might be getting quite large.	n=163
How much did you and your maternity care provider talk about the reasons you <u>might want</u> to have an induction (% "some" or "a lot")?	61
How much did you and your maternity care provider talk about the reasons you <u>might not want</u> to have an induction (% "some" or "a lot")?	38
Did your maternity care provider explain that there were choices (% yes)?	82
Did maternity care provider express opinion about whether or not you should have induction?	81
Did your maternity care provider think you should or should <u>not</u> have (% should have induction among those who expressed opinion)?	80
Did your maternity care provider ask you whether or not you <u>wanted</u> to have (% yes)?	77
Who made the final decision whether or not to have induction?(% mother's /% MCP/% shared)?	46/20/34
If you knew then what you know now, do you think you would make the same decision about having (% definitely yes")?	64
Percent of mothers who shared decision making and experienced an induction	67

#### Mothers' experiences of making labor & birth decisions

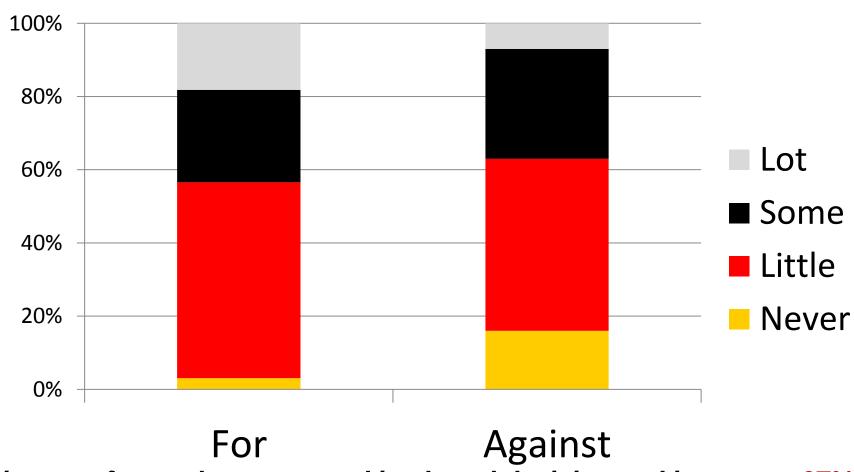
Repeat cesarean or VBAC decision for mothers with 1 or 2 prior CS	. N= 321
How much did you and your maternity care provider talk about the reasons you <u>might want</u> to have an induction (% "some" or "a lot")?	61
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Who made the final decision whether or not to have induction?(% mother's /% MCP/% shared)?	46/20/34
If you knew then what you know now, do you think you would make the same decision about having (% definitely yes")?	64
Percent of mothers who shared decision making and experienced a repeat cesarean.(%)	93

## Likelihood of Intervention by Whether or Not Discussed Intervention with Provider



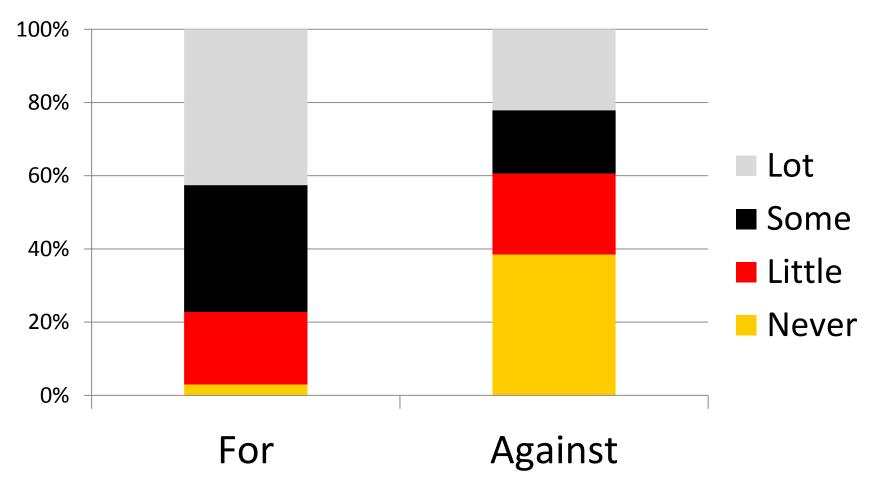
## If this is a shared process how did so many mothers end up with the intervention?

## Extent of provider discussion about reasons for having and not having an induction



Induction rate for mothers engaged in shared decision making: 67% Induction rate for mothers not engaged in shared decision making: 43%

## Extent of provider discussion about reasons for having and not having repeat cesarean



VBAC rate for mothers engaged in shared decision making: 7% VBAC rate for mothers not engaged in shared decision making: 14%

## From our analysis:

Among women with one or two prior cesareans, those who reported that their provider recommended scheduling a repeat cesarean were 14.2 times more likely to give birth via cesarean (AOR 14.2; 95% CI: 3.2, 63.0) after accounting for differences in maternal age, race/ethnicity, and insurance status compared to mothers whose providers did not recommend a repeat cesarean.

## Mothers' experience of pressure to have interventions, by whether mothers had intervention

Intervention	Experience of pressure among mothers who did not have intervention*	Experience of pressure among mothers who had intervention
Labor induction	8%	25%
Primary cesarean	7%	28%
Repeat cesarean	28%*	22%

<sup>\*</sup> Mothers having a VBAC

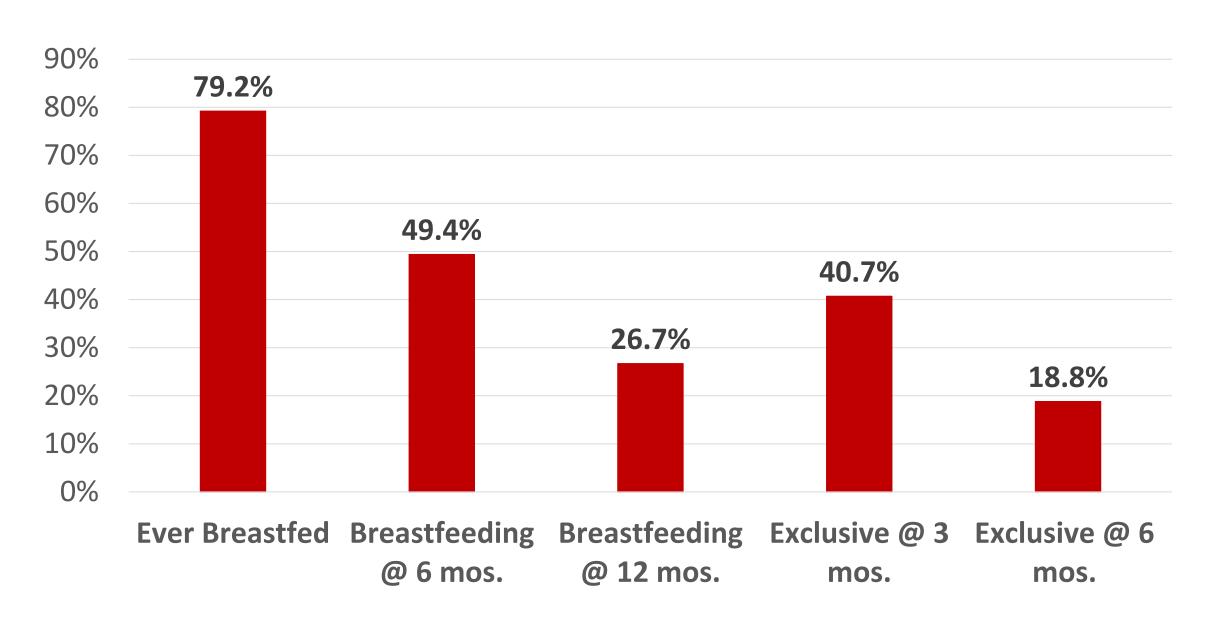
www.birthbythenumbers.org

## 5. Support for their method of infant feeding (Hospital support for breastfeeding)

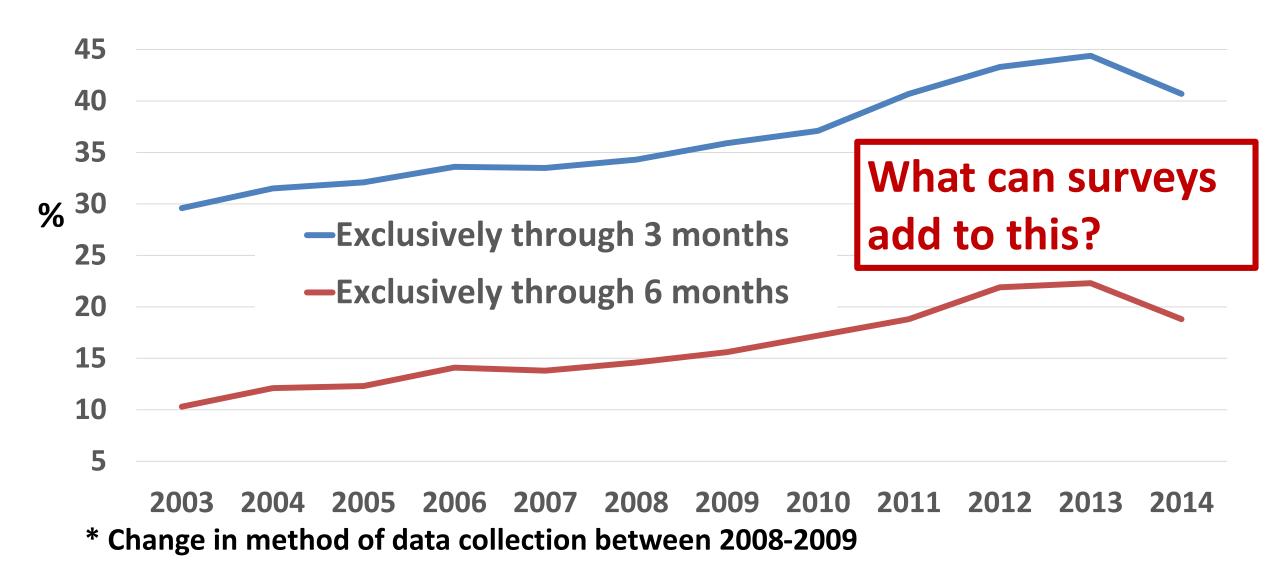
## **Comparative Breastfeeding Data**

	Australia	France	Ger- many	Ireland	<b>New</b> Zealand	Norway	UK	USA
Initial rate	92%	63%	90%	50%	88%	99%	81%	<b>75</b> %
6 months rate (any)	56%	N/A	51%	9%	N/A	80-82%	25%	44%
6 months rate (exclusive or fully)	14%	N/A	10-20%	2.4%	25%	2-10%	<1%	15%
Length and rate of paid parental leave		16 weeks full pay	14 months	26 weeks	14 weeks	46 weeks full pay or 56 weeks at 80% pay	39 weeks	None. 7 states have some laws

## U.S. Breastfeeding Rates, 2014

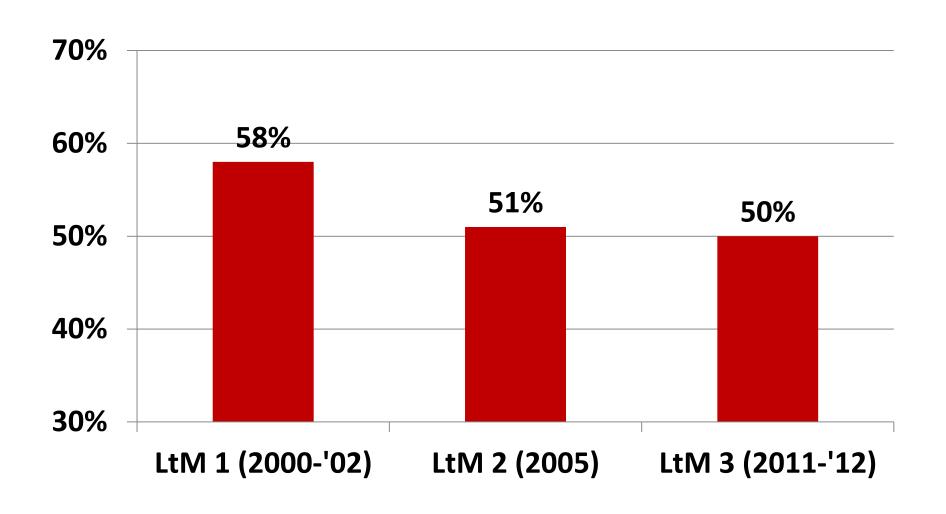


### U.S. Exclusive Breastfeeding Rates, 2003-2014

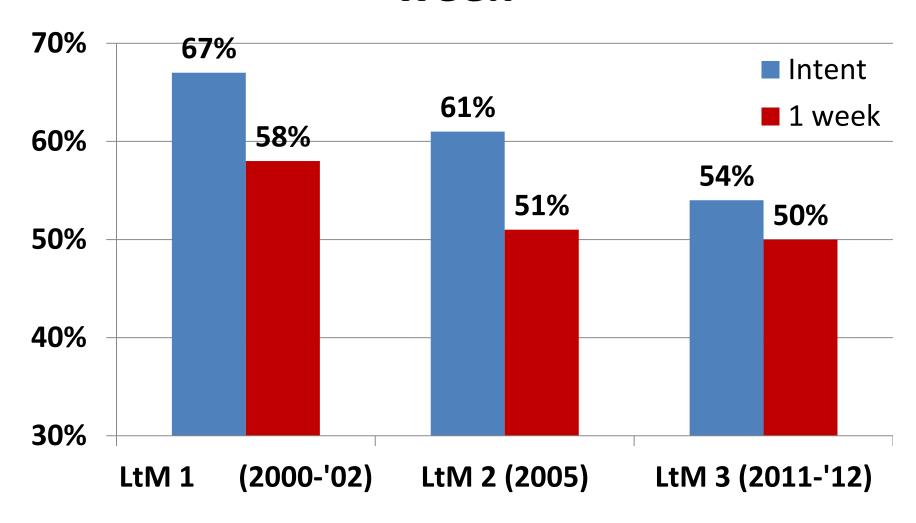


#### From LtM Surveys

### **Breastfeeding at 1 week**



## Rates of Intent to Breastfeed & Breastfeeding at 1 week



## Surveys can explore mother's support for breastfeeding – Both the Good News

Base: as came to end of pregnancy, wanted to exclusively breastfeed	LTMI 2000-02	LTMII 2005	LTMIII 2011-12
As came to end of pregnancy, hoped to exclusively breastfeed baby	67%	61%	54%
A week after birth, feeding baby breast milk only	58%	51%	50%
Hospital staff provided formula or water to supplement breast milk	47%	38%	29%
Hospital staff provided free formula samples or offers	80%	66%	49%

#### ....and Mixed News

Rates for Mothers intending to Exclusively Breastfeed	LtM2	LtM 3
Helped you get started breastfeeding when you and your baby were ready	77%	81%
Encouraged you to feed "on demand"	76%	69%
Showed you how to position your baby to limit nipple soreness	66%	64%
Told you about community breastfeeding support resources for ongoing help	65%	53%
Gave baby a pacifier	44%	37%

## **Bonus Insight!!**

## Trends in U.S. Mothers Attitudes toward Intervention in Birth

## Trends in Mothers Attitudes toward intervention in birth

Birth is a process that should not be interfered with unless medically necessary	LTMI 2000-02 n=1583	LTMII 2005 n=1573	LTMIII 2011-12 n=2400
Disagree strongly or somewhat	31%	24%	16%
Neither agree nor disagree	24%	25%	26%
Agree somewhat or strongly	45%	50%	58%

The only way we'll get sustainable reforms in maternity care systems is to institutionalize the input of mothers' experiences and attitudes into the process.



"Facts are stubborn things; and whatever may be our wishes, our inclinations, or the dictates of our passion, they cannot alter the state of facts and evidence."

— John Adams, Massachusetts, 1788

Evidence is a necessary but not sufficient condition for change. Only the marrying of evidence with thoughtful communication and persistent activism will bring change.

> Gene Declercq Sydney, 2016