Black Maternal Mortality in Texas

Janice Manhardt 06/30/2020 HIST 489

Background

2013

2016

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2017

Today







Background

Definitions

Where Statistics are Gathered From



- Maternal death: "The death of a woman while pregnant or within 42 days of termination of pregnancy...from any cause related to or aggravated by the pregnancy or its management, but not from accidental or incidental causes" (WHO).
- Maternal mortality rate: "The number of maternal deaths per 100,000 live births" (CDC).

"Indicator Metadata Registry List: Maternal Deaths" World Health Organization, World Health Organization, www.who.int/data/gho/indicator-metadata-registry/imr-details/4622.

"Pregnancy Mortality Surveillance System." Centers for Disease Control and Prevention.

Centers for Disease Control and Prevention. 25 Nov. 2020, www.cdc.gov/
reproductivehealth/maternal-mortality/index.html.



Background

Definitions

Where
Statistics
are
Gathered
From



National Vital Statistics System

- Compiles data from each state based on death certificates filled out by doctors and coroners
- Data can be deeply flawed and inconsistent
 - U.S. published an official maternal mortality rate in 2007, and did not publish one again until 2018.



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The Maternal Mortality and Morbidity Task Force

- Established through Senate Bill
 495 in the 83rd Texas Legislature
- Created to study cases of pregnancy-related deaths, identify trends in severe maternal morbidity, and make recommendations to reduce the number of pregnancy-related deaths and severe maternal morbidity in Texas.



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July 2016

Texas's Task
Force 2016
Biennial
Report

September 2016

"Recent Increases in U.S. Maternal Mortality Rate" by Marian MacDorman and team



Findings

- Texas's Task Force 2016 Biennial Report Findings (Based on analysis of maternal death data from 2011-201).
- 189 maternal deaths who died within 1 year of a birth or fetal death event
- Black women bear the greatest risk for maternal death
 - Only 11.4% of all births in Texas were to Black women, but they accounted for 28.8% of all maternal deaths
- A majority (60%) of maternal deaths occurred after
 42 days post-delivery

Recommendation

- Increase access to health services during year after delivery (This recommendation is repeated in the 2018 and 2020 report.)
 - Over half of all Texas births are paid by Medicaid
 - 117 out of 189 maternal deaths occurred between 6 weeks (42 days) to 52 weeks after delivery, when access to health care is limited for many women.
 - Pregnant women lose Medicaid coverage 60 days after pregnancy (see notes for more details)



July 2016

Texas's Task
Force 2016
Biennial
Report

September 2016

"Recent Increases in U.S. Maternal Mortality Rate" by Marian MacDorman and team



Unexpected Result

Background



Revised Death Certificate

- In 2003, a pregnancy question was added to the U.S. standard death certificate to improve detection of maternal deaths according to the WHO definition (within 42 days).
- There were delays in the adoption of the revised death certificate by a number of states, which also meant delays in the new pregnancy question.
- Texas had a pregnancy question before the revision with the time frame of 1 year for maternal death. They did not adopt the revised death certificate until 2006.

		es and Pregnancy Qu	resents types, a	
	Univ	evited		
State	Pregnancy question?	Pregnant within last:	Revision date	Analysis group
Alabama	Yes	42 days	not revised.	
Alaska	No		2014	
Arizona	No		2010	
Arkanas	No		2008	
California	No		2003	separa
Tennessee	No		2012	
Tesas	Yes	12 months	2006	-
Utah	No		3005	



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Table 1 State Death Certificate Revision Dates and Pregnancy Question Types, 2014

State		Unre	evised			
		Pregnancy question?	Pregnant within last:	Revision date*	Analysis group**	
	Alabama	Yes	42 days	not revised	4	
	Alaska	No		2014	3	
	Arizona	No		2010	1	
	Arkansas	No		2008	1	
	California	No		2003	separate	
	Tennessee	No		2012	1	
	Texas	Yes	12 months	2006	***	
	Utah	No		2005		



Unexpected Result

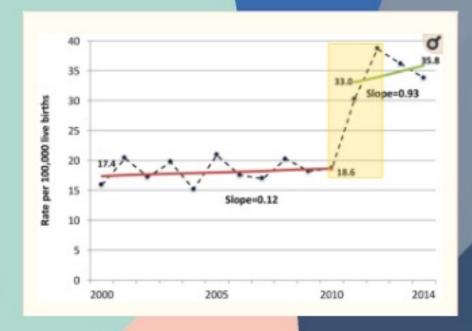
Background



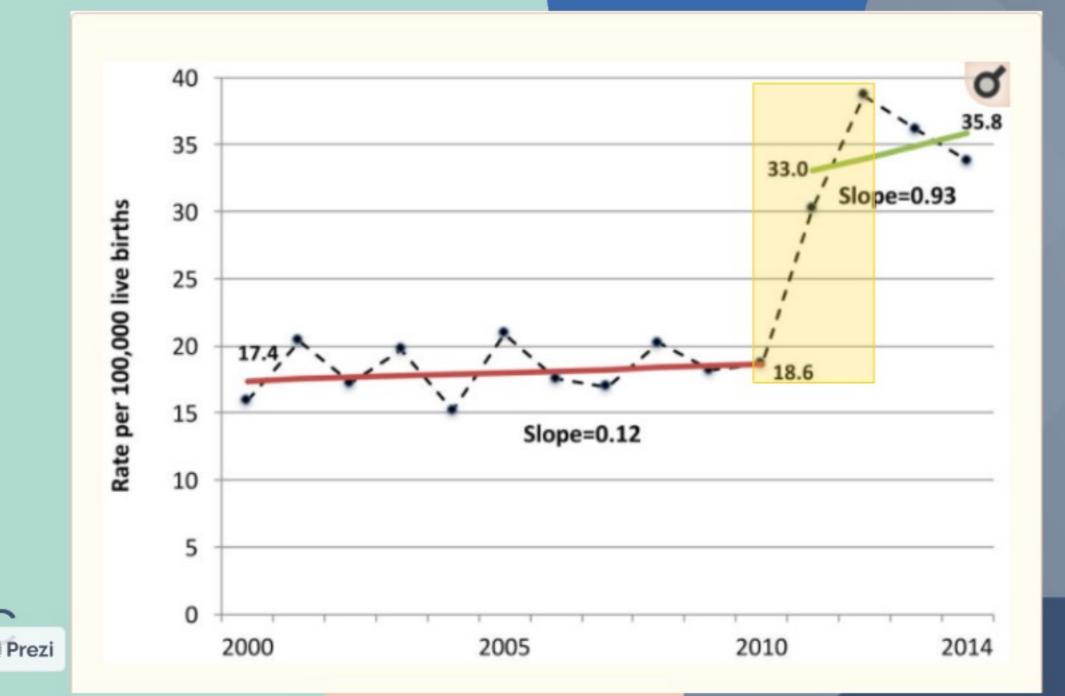
Texas as an Outlier

The study found Texas had a sudden increase between 2010 to 2012, where maternal mortality rate doubled to "levels not seen in other U.S. states" (MacDorman).

The researchers found this data "puzzling...in the absence of war, natural disaster, or severe economic upheaval" (MacDorman).







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Texas's 85th Legislature Session

- A bill to extend the task force through 2023 never got a final vote.
- A bill that would extend health care access for women on Medicaid from 60 days to 1 year after childbirth did not get a hearing.
- A bill that proposed screening and treatment for postpartum depression for mothers whose babies are on Medicaid or CHIP did not get a House vote
- The Office of Minority Health Statistics and Engagement was defunded.
 - The purpose of the agency was to study and solve racial inequities across the state's health agencies.



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January 2018

Follow-up study by MacDorman and her team

May 2018

"Identifying Maternal Deaths in Texas Using an Enhanced Method"

Key Points



Background

- More detailed analysis of trends in Texas maternal mortality from 2006-2015
- Data was grouped into two 5-year age groups: 2006-2010 (before the rapid increase in maternal deaths) and 2011-2015 (during/after the increase)
- · Goals:
 - Identify trends and at-risk populations to help in targeting prevention effort
 - Evaluated data quality

Discussion

Results

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	35 -		/	13.8
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Ne S	25 -		/	
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* 30	15 -17.5 25.9	18.2		
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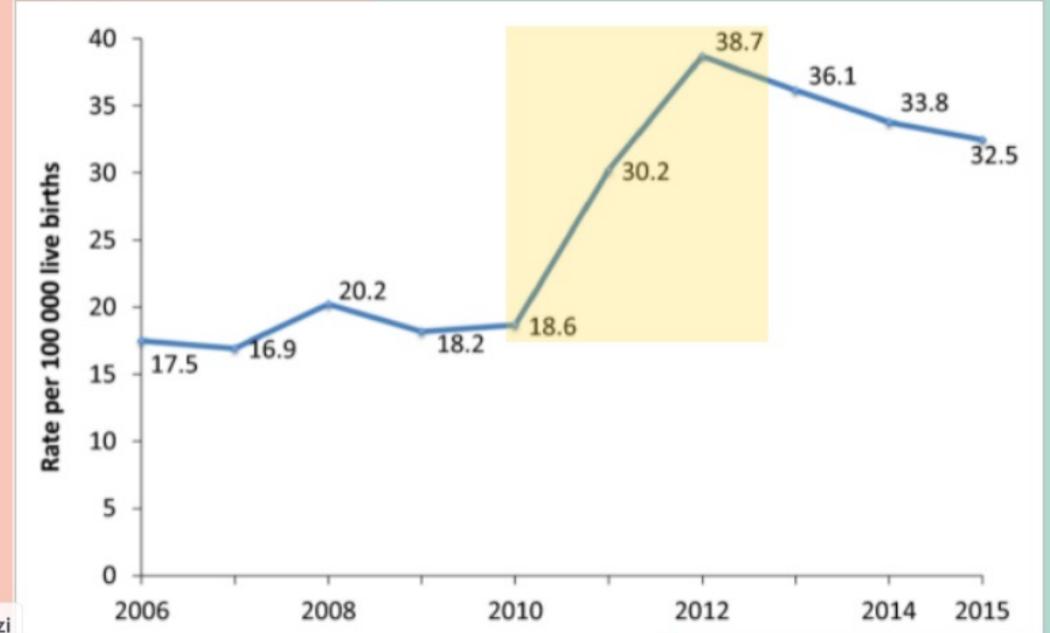
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and mutomal age	Meternal sleeths	Direks	Retz ³	Meternal cleativs	Dirtho	Rett ³	change 2006 2019 to 2015-2015	
Total	310	1900877	193	655	1990 890	543	er 2***	
Resolvativity Hon-Hapens solvine	64	690 040	19.4	301	687 630	50.0	MO ****	
Northpets trick	16	120 376	46	199	131.211	15.6	105.5	
Hapanin	128	908 (07	13.8	101	961 870	29.8	0/***	
Herenal age (s)								
440	204	1959 339	123	310	1981 685	29.7	86.5	
<10	15	258.342	5.9	35	191 050	13.6	128.4	
20-24	52	544 805	9.5	25	400 630	11.2	175	
23-29	er	148 130	123	20	14110	19.7	27.2	
20-24	40	407 579	15.5	117	480 622	15.4	64.6	
25-59	65	194.415	52.4	100	210.400	9.1	79.8	

Table 3. Sensitivity analysis of possible influence of 0.5%, 1%, and 1.5% overreporting of the
pregnancy checkbox on maternal mortality rates, Texas, 2011-2015

Agz (yi	Number of meternal deaths.	Number of female deaths from natural causes (excludes maternal deaths)	Mumber of maternal deaths with take positions added to total	Percent increase is tract with care take positive nate	Mumber of maternal deaths with the false positives added to total	Percent increase in UAM with 1% false positive note	Number of maternal deaths with 1.5% false positives edded to total	Percent increase in UMB with 1.5% false positive rate	
-90	262	7762	412	9.0	401	19.6	24	29.7	
15-	26	40		6.7	31	17.4	30	25.1	
33. 31	81	TM	10	7.0	61	14.5	67	31.4	
25- 29	Di .	1383	RI .	7.2	м	163	104	21.5	
50- 54	117	2000	127	9,0	130	17.8	148	25.9	
18.	100	5223	126	14.8	141	29.6	192	44.4	



Figure 1





Prezi

Race/ethnicity	2006-2010			2011-2015			Percent	
and maternal age	Maternal deaths	Births	Rate ^a	Maternal deaths	Births	Rate ^a	change 2006- 2010 to 2011-2015	
Total	366	2 000 877	18.3	668	1 950 896	34.2	87.2***	
Race/ethnicity Non-Hispanic white	134	692 018	19.4	261	687 620	38.0	96.0	
Non-Hispanic black	95	228 375	41.6	198	231 212	85.6	105.9	
Hispanic	126	996 097	12.6	191	931 570	20.5	62.1	
Maternal age (y)								
<40	261	1 959 339	13.3	393	1 901 681	20.7	55.1***	
<20	16	266 242	6.0	26	191 058	13.6	126.4	
20-24	52	544 885	9.5	55	490 630	11.2	17.5	
25-29	67	546 120	12.3	86	548 916	15.7	27.7	
30-34	63	407 679	15.5	117	460 622	25.4	64.4	
35-39	63	194 413	32.4	109	210 455	51.8	59.8**	

36.1

33.8

2014

Prezi

2015

Table 3. Sensitivity analy pregnancy checkbox on

Age (y)	Number of maternal deaths	Nur of for dea from nati cau (exc mat dea
<40	393	779
15-	26	452
19		
20-	55	786
24		
25-	86	123
29		
30-	117	209
34		

35-

109

3223

ths	Rate ^a	Percent change 2006 2010 to 2011-2015
50 896	34.2	87.2
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Table 3. Sensitivity analysis of possible influence of 0.5%, 1%, and 1.5% overreporting of the pregnancy checkbox on maternal mortality rates, Texas, 2011-2015

Age (y)	Number of maternal deaths	Number of female deaths from natural causes (excludes maternal deaths)	Number of maternal deaths with 0.5% false positives added to total	Percent increase in MMR with 0.5% false positive rate	Number of maternal deaths with 1% false positives added to total	Percent increase in MMR with 1% false positive rate	Number of maternal deaths with 1.5% false positives added to total	Percent increase in MMR with 1.5% false positive rate
<40	393	7792	432	9.9	471	19.8	510	29.7
15- 19	26	452	28	8.7	31	17.4	33	26.1
20- 24	55	786	59	7.1	63	14.3	67	21.4
25- 29	86	1232	92	7.2	98	14.3	104	21.5
30- 34	117	2099	127	9.0	138	17.9	148	26.9
35- 39	109	3223	125	14.8	141	29.6	157	44.4

Discussion

to



"Parallel Public Health Emergencies"

The situation in Texas is a dual public health emergency:

1) Sharp increase in maternal mortality rate over the span of 2 years

2) Lack of reliable data to better understand the increase

Although vital statistics data isn't reliable, "the fact that maternal mortality increased in Texas is not in dispute" (MacDorman).



Macdorman, Marian F., et al. 'Trends in Texas Maternal Mortality by Maternal Age, Race/Ethnicity, and Cause of Death, 2006-2015' Birth, vol. 45, no. 2, 4 Jan. 2018, pp. 169-177., doi:10.1111/birt.12330.

January 2018

Follow-up study by MacDorman and her team

May 2018

"Identifying Maternal Deaths in Texas Using an Enhanced Method"

Key Points



Background

- Researchers were those on the state task force
- Objective of the study was to more accurately estimate the 2012 MMR in Texas through an enhanced method that used both data matching and record review
- Analyzed 147 deaths that occurred within
 42 days after birth (to match criterias from MacDorman's studies)

Results

Maternal Characteristic	No. of Live Births	No. of Confirmed Maternal Deaths	MMR* (95% CI)	χ ² (P)
Overall	382,438	56	14.6 (11.1-19.0)	
Race and ethnicity				7.1 (P = .07)
White	132,288	18	13.6 (8.1-21.5)	
Black*	43.100	12	27.8 (14.4-48.6)	
Hispanic	182,855	21	11.5 (7.1-17.6)	
Other	24,195	5	20.71 (6.7-48.2)	
Age (y)				13.9 (P=.001)
24 or yourser	138,566	12	8.7 (4.5-15.1)	
25-34	194,183	28	14.4 (9.6-20.8)	
35 or older	49,684	16	32.2 (18.4-52.3)	

MMR, maternal mortality ratio.

 Enhanced MMR estimates are calculated using Texas resident confirmed maternal deaths occurring while pregnant or within 42 days after the end of pregnancy per 100,000 live births.

Although no significant differences in MMR by sace and ethnicity were observed overall P=0.07, when comparing maternal deaths among black and white women $(\chi^2=3.0, P=0.00)$.

A small number of insternal deaths for this subgroup resulted in a wide co, indicating unreliability of this estimate,

- 56 maternal deaths confirmed to have occurred during pregnancy or within 42 days postpartum
- Found MMR to be 14.6 maternal deaths per 100,000 live births - less than half the number reported by MacDorman's study
- Stated high estimate reported in MacDorman's study was "the result of data error" (Baeva).



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Enhanced MMR estimates are calculated using Texas resident confirmed maternal deaths occurring while pregnant or within 42 days after the end of pregnancy per 100,000 live births.

Although no significant differences in MMR by race and ethnicity were observed overall (P=.07), when comparing maternal deaths among black and white women only, black women had a significantly higher MMR than white women (χ^2 =3.9, P=.050).

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Key Points



Comparison of Data

- Both 2018 studies show that the MMR for Black mothers was more than doubled the MMR for White mothers.
- The July 2016 report by task force confirms 189 maternal deaths within 1 year after birth. The study by Texas's task force with the new criteria of counting maternal deaths within 42 days after birth drasticually cuts the state's confirmed death count in 2012 by a third (189 --> 56). This means 133 mothers are being erased from the data, even though their deaths had already been confirmed.



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Conclusion

Texas House Bill 133

2021

Texas A&M



- The CDC found non-Hispanic Black women to be disproportionately affected by COVID-19 infection during pregnancy.
- Overall tracking of confirmed cases and deaths in Texas was described as "scattershot and incomplete."
- The Office of Minority Health Statistics was a part of the Texas Health and Human Services Commission that helped to identify health disparities and recommened policies for Texas systems. It was defunded in 2017 by the Texas Legislature during a budget cut.
- Legislatures have criticized that if the Office of Minority Health Statistics and Engagement had not been eliminated in 2017, actions would have been identified earlier that "could have decreased the disproportionate impact...and saved some lives" (Barajas & Novack).



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Texas House Bill 133

2021

Texas A&M



Texas's 87th Legislature Session

- House Bill 133 proposed the extension of Medicaid coverage for new Texas mothers from 2 months to one year, based off recommendations by the task force.
- 05/28/21 The Senate passes the bill in a 30-1 vote with a modification that coverage would be raised from 2 months to six months, not one year. The House approved of this change.
- 6/15/21 The bill was signed by Governor Abbott and will be effective on 9/1/21.



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Texas House Bill 133

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Key Points

- The enhanced method used in the Texas study to calculate MMR is being used by the Texas Maternal Mortality and Morbidity Task Force today. However, Texas's MMR cannot be compared to other states because no other state has utilized this same method.
- A lack of national standards for acquiring maternal mortality statistics are erasing mothers (especially Black mothers) and their sufferings from the data. There is a disconnect between the needs of pregnant mothers and how that need translates to those in government. Without the evidence, legislatures will continue to dismiss the gravity of this crisis.
- There is more that can be done by legislatures to address the maternal mortality crisis happening in Texas. HB 133 took 3 Texas Legislative sessions (4 years since a similar bill back in 2017 was introduced and 5 years since the recommendation by the task force back in 2016) to finally pass and be signed by the governor. If we are to lower Black maternal deaths, failures in the state health system must be evaluated and recommendations by the task force must be made as priorities.



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Available Resources for Aggie Parents and Pregnant Students

- Women's Resource Center (on-campus)
 - Breastfeeding Welcomed Here Campaign: list of campus buildings that offer spaces for lactating moms to breastfeed their children or pump
 - The Little Aggie: resource guide for Aggie parents about local activities for children, local medical providers, and suggested questions for childcare providers.
 - https://studentlife.tamu.edu/wrc/
- Aggieland Pregnancy Outreach (off-campus)
 - All services are free
 - Support women and men experiencing unplanned pregnancies or adoption https://pregnancyoutreach.org/



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Medicaid and CHIP in Texas

- Medicaid and the Children's Health Insurance Program (CHIP) are free or lowcost health programs for low-income families and children, pregnant women, the elderly, and people with disabilities.
- Both of these programs provide medical coverage for over 4 million low-income Texans - half of all children in the state are covered.
- Medicaid for Pregnant Women provides health coverage to low-income pregnant women during pregnancy and up to two months after birth of baby.

Comparison of Income Guidelines for Medicaid



Medicaid Eligibility During and After Birth of Baby

During pregnancy and 2 months after birth

Income Guidelines for Medicaid for Pregnant Women

Your income is the money you get paid before taxes are taken out. Find your family size on the table below. If your monthly income is the same or less, you might get Medicaid.

Family Size	Monthly Family Income
1	\$2,126
2	\$2,875
3	\$3,624
4	\$4,373
5	\$5,122
For each additional person, add:	\$750

Beyond 2 months

- Income Guidelines for Medicaid

Your income is the money you get paid before taxes are taken out. Find your family size on the table below. If your monthly income is the same or less, you might get Medicaid.

Family size	One Parent	Two Parent
1	\$103	
2	\$196	\$161
3	\$230	\$251
4	\$277	\$285
For each additional person, add:	\$52	\$52

For a single mother to qualify, she would have to make \$2,126 per month or less. But to qualify after two months, the income threshold significantly drops to \$195 per month for a mother with one child.



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