Using a Systems Approach for Statewide Improvement in Maternity Practices in Infant Nutrition and Care: The Texas Ten Step Star Achiever Initiative

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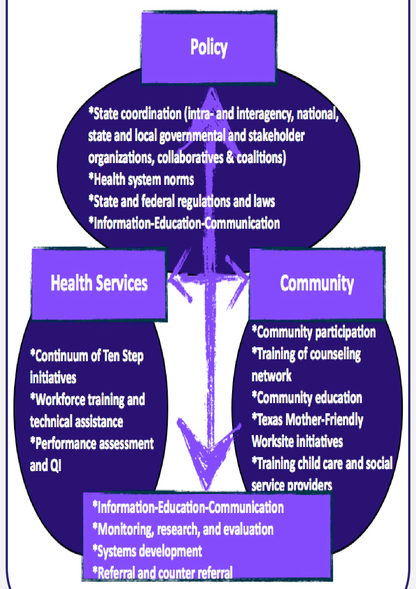
Background and context: While the vast majority of Texas mothers choose to breastfeed, fewer than half will breastfeed for as long as they want to. More than 42% of Texas' healthy, term singleton newborns will be fed formula by the second day of life, compromising lactation and increasing risk of poor health outcomes. Only 24% of WIC moms report asking for the formula their babies were fed while in the hospital. Implementation of a bundle of evidence-based maternity practices (Ten Steps) is demonstrated to improve breastfeeding outcomes across all races, ethnicities and income levels, to increase continuity and. ultimately. to result in improved health outcomes. DSHS developed the Texas Ten Step Star Achiever Initiative to accelerate uptake of Ten Steps implementation to increase exclusive breastfeeding prevalence, reduce in-hospital formula supplementation, increase equity, and improve quality using team-based rapid cycle improvement and community engagement.

DSHS Comprehensive Program of Breastfeeding Support

All state breastfeeding activities are planned and implemented within the context of a comprehensive, synergistic program of breastfeeding support. Activities are coordinated with oversight by members of the DSHS Intra-agency Infant Feeding Workgroup.



From Pre-Contemplation to Full Integration of Ten Steps to Successful Breastfeeding

DSHS offers a continuum of initiatives to support maternity practice improvement in infant nutrition and care

Right from the Start Campaign → **Trainings/ Resources** → **Texas Ten Step Program** → **Texas Ten Step Star Achiever Initiative** → **Recommended practices integrated & sustained**

Right from the Start Campaign

- Targets facility decision makers to increase awareness and inspire action.
- Presents evidence and hospital data to demonstrate that facility policies and practices can have a profound impact on breastfeeding outcomes.
- Introduces audience to Ten Steps to Successful Breastfeeding
- Encourages incremental practice improvements

Breastfeeding trainings and resources (live and online training offerings, print and electronic materials, websites, smart phone app, technical assistance, and coordination with state and local community service providers) facilitates uptake of recommended practices.

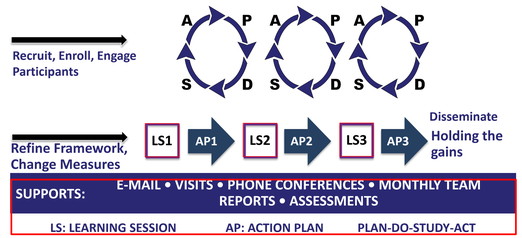
The **Texas Ten Step Program** (TTS) recognizes achievement towards the Ten Steps.

- Designation awarded to birthing facilities that address ≥85 percent of the Ten Steps and are a designated Texas Mother Friendly Worksite
- Currently 108 designated Texas Ten Step Facilities (a 50% increase from 74 facilities EOY FY09)

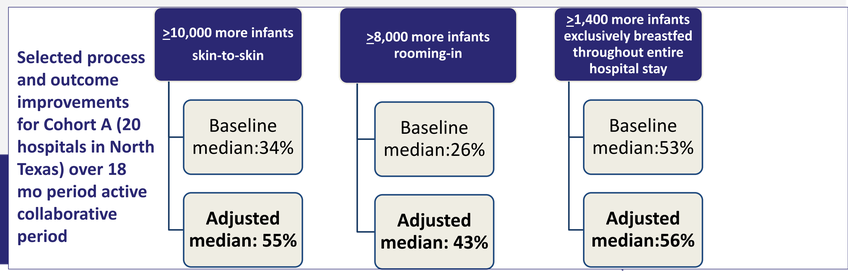
The **TTS Star Achiever Initiative** aims to improve infant feeding outcomes and decrease breastfeeding disparities through accelerated integration of the Ten Steps and increased continuity of care from the hospital to the community. the initiative offers:

- The Texas Breastfeeding Learning Collaborative (via contract with NICHQ) to facilitate rapid cycle quality improvement
- training, tools, and ongoing technical assistance for facilities to improve policies and processes that impact infant nutrition & care
- Community partner meetings to facilitate systems development for coordinated continuity
- Up to 81 facilities will participate across three cohorts from 2012-2016.

Texas Ten Step Star Achiever Initiative



- Three geographically distinct, sequential cohorts of ≥20 hospital teams plan small tests of rapid cycle change for improvement toward the Ten Steps, track data, and share experiences and learning.
- Each team includes multi-disciplinary hospital leaders, mother representatives to "keep it real" and a WIC representative to foster community connections.
- Mentors from previous cohorts spread learning and remain engaged in leading change.
- Individualized technical assistance (TA), training, TA site visits, expert faculty, a comprehensive QI toolkit, and interactive communication platforms are available to teams as they work to achieve their facility's and the collaborative Aims to improve practices and outcomes.
- Community partners are engaged to build bridges to outpatient services.
- Teams achieve demonstrated improvements across all process and outcome measures.



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www.TexasTenStep.org

Star Achievers: Improving and Sustaining Breastfeeding Practices through a State-Wide Learning Collaborative

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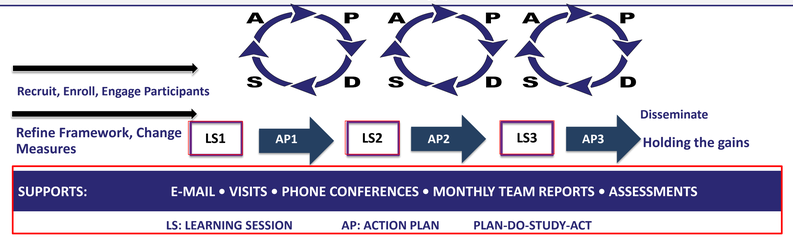
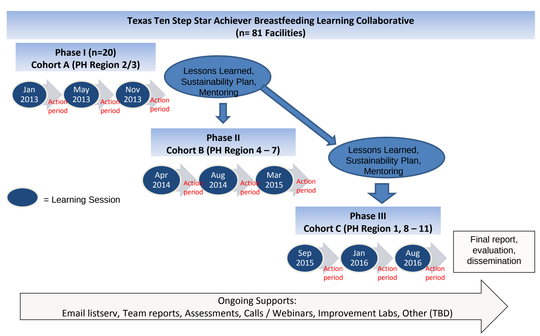
Background and Context: Though most Texas mothers choose to breastfeed, only 46% of newborns exclusively breastfeed at hospital discharge. The Texas Breastfeeding Learning Collaborative (TBLC) aims to increase the average aggregate performance for exclusive breastfeeding throughout the hospital stay (percent of newborns fed only breast milk during the newborn's entire hospitalization) to ≥65% by June 2017 among participating facilities through three sequential regional Quality Improvement (QI) learning collaborative cohorts of up to 81 birthing facilities. The WHO/UNICEF Ten Steps to Successful Breastfeeding (Ten Steps) is a bundle of evidence-based practices demonstrated to result in improvements in hospital delivery environments and breastfeeding outcomes. The TBLC, funded by DSHS and coordinated by NICHQ, utilizes Institute for Healthcare Improvement's Breakthrough Series (BTS) and Model for Improvement (MFI) to facilitate Ten Steps uptake. Cohorts A and B include 41 hospital improvement teams in two geographic regions cumulatively accounting for 99,000 births (26% of Texas births and 2.5% U.S. births) annually. Participating facilities include a diverse mix of urban/rural, large/mid-sized/small, and public, private, and academic center settings at varying stages of Ten Step implementation. Recruitment is currently underway for Cohort C.

Methodology

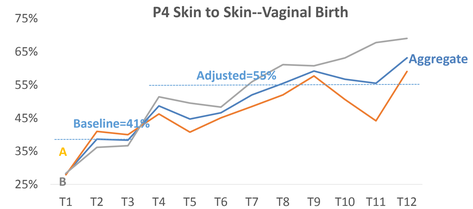


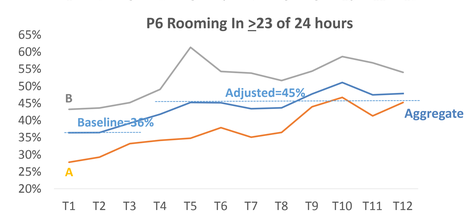
- The TBLC utilizes the BTS, MFI and complementary supports to facilitate implementation of the Ten Steps within participating facilities (see diagram above).
- Twenty hospital teams (Cohort A) were guided through a BTS Learning Collaborative employing components including: data collection; self-assessment surveys; discussion forums; support calls; leadership events; face-to-face Learning Sessions (LS); and virtual Action Periods (AP) calls.
- Each team includes multi-disciplinary hospital leaders, mother representatives to "keep it real" and a WIC representative to foster community connections. Hospital leaders and mothers meet regularly in their own "Communities of Practice" to share successes and challenges.
- Community partners are engaged to build bridges to outpatient services.
- Cohort B builds upon Cohort A successes and collective learning is spread to hospital teams through cross-cohort collaborative mentorship and continuous quality improvement within the project structure (see diagram below).

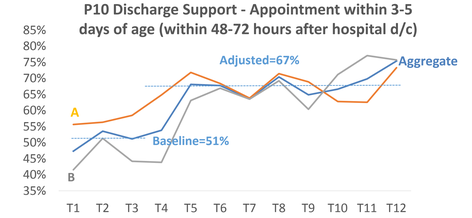


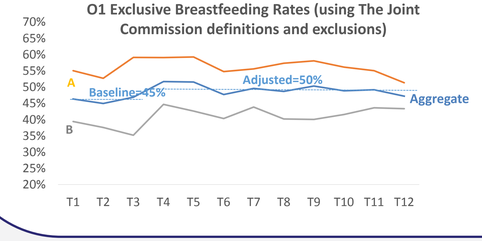
Results

The following run charts show aggregate improvements of TBLC Cohorts A & B through April 2015 on selected measures.









Conclusion and Implications for Nursing Practice

Multidisciplinary teams engaged in a quality improvement learning collaborative to accelerate adaptation of recommended maternity practices across diverse hospital settings have achieved rapid improvements in both process and outcome measures.

- *Improvement on key process measures of the Ten Steps to Successful Breastfeeding including prenatal breastfeeding education, skin to skin, assistance and support with breastfeeding, feeding on cue, education on pacifier and/or artificial nipple use, and linkages to community support.*
- *Progress on outcome measures for any- and exclusive breastfeeding and of reduction in formula supplementation among breastfed newborns.*

- Improvement strategies and lessons learned are transferable to other projects and settings.
- Hospital to hospital mentorship is important to hospital progress in implementing the Ten Steps.
- Leadership track with hospital leaders allows for the sharing of successes and challenges with Ten Steps implementation.

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Visit www.TexasTenStep.org and Breastfeeding.NICHQ.org

TEXAS Department of State Health Services

Predictors of Attitudes Towards Breastfeeding Among Texas Residents

Texas Behavioral Risk Factor Surveillance System, 2012

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Texas Department of State Health Services

Background

- The benefits of breastfeeding versus formula or mixed breast-milk/formula feeding for infants' and mothers' health have been well documented. Babies who are sub-optimally breastfed are at increased risk for developing diarrhea, ear infections, type 2 diabetes, asthma, and childhood obesity.[1] Sub-optimal breastfeeding also increases the risk for breast cancer, ovarian cancer, type 2 diabetes and cardiovascular disease in mothers.[2]
- Though most women choose to breastfeed, few will breastfeed according to medical recommendations.[4] Studies document that a majority of mothers who stop breastfeeding report that they did not breastfeed for as long as they wanted.[5]
- Nevertheless, a mother's decision to breastfeed her child can be greatly influenced by other people's attitudes toward breastfeeding.[6]
- Understanding and addressing these attitudes may help improve initiation and duration of breastfeeding.

Objectives

- To provide an overview on attitudes on infant feeding decisions.
- To describe demographic-related characteristics that may affect attitudes towards breastfeeding among Texas residents.

Methods

- The Texas Behavioral Risk Factor Surveillance Survey (BRFSS) is a statewide landline and cellular telephone survey of the non-institutionalized civilian Texas population.
- Seven questions about Breastfeeding Awareness and one question about Childhood Breastfeeding were asked on one half of the 2012 Texas BRFSS.
- A design weight was calculated to adjust for the probability of selection and a method called iterative proportional fitting (raking) was used to modify the design weight to adjust for the distribution of the population by 12 margins (age group by sex, race/ethnicity, education, marital status, tenure (own or rent home), sex by race/ethnicity, age group by race/ethnicity, phone ownership, region, region by age group, region by sex, and region by race/ethnicity).
- Rates and 95% confidence intervals were calculated for responses to each of the eight questions for totals and also by demographics (sex, age group, race/ethnicity, education, income group, health care coverage, marital status, and geographic stratification.)

Survey Questions

Breastfeeding Awareness Questions

- **Question 1:** What is your personal reaction when you see a woman breastfeeding in public*? (Possible responses are read and respondents could choose more than one answer.)*

Questions 2 through 6 are about peoples' attitudes toward breastfeeding. Respondents are asked to agree slightly or strongly, or disagree slightly or strongly.

- **Question 2:** A woman should be able to breastfeed her baby in public even if it makes another person uncomfortable.
- **Question 3:** In general, people in your community think it is important for women to breastfeed.
- **Question 4:** Some formulas are just as healthy for babies as breast milk.
- **Question 5:** Hospitals should not advertise baby formula for formula manufacturers.
- **Question 6:** Breastfeeding saves money in health care costs.
- **Question 7:** When it comes to infant feeding, healthcare providers should promote: only breastfeeding, only formula feeding, both breast and formula feeding, or health care providers do not have a role in infant feeding decisions.

Childhood Breastfeeding Question

- **Question 1:** Was this child breastfeed, bottle fed or both?

Contact Information

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Results

Table 1
What is your personal reaction when you see a woman breastfeeding in public?
Texas BRFSS, 2012

	%	95% Confidence Interval
I think it is very positive	15.8	(14.2 - 17.5)
I think it is normal and appropriate	19.6	(17.9 - 21.4)
It does not bother me	35.4	(33.3 - 37.5)
It doesn't bother me if she covers herself up or is discreet	21.7	(20.0 - 23.4)
I do not think it is appropriate	1.8	(1.3 - 2.4)
I think she should go to the nearest restroom	1.3	(.9 - 2.0)
I wish there was a more appropriate and private place for women to breastfeed other than a restroom	4.2	(3.3 - 5.2)
I wish a manager security guard would make the woman leave the location	0.3	(.2 - .7)

Figure 1
A woman should be able to breastfeed her baby in public even if it makes another person uncomfortable.

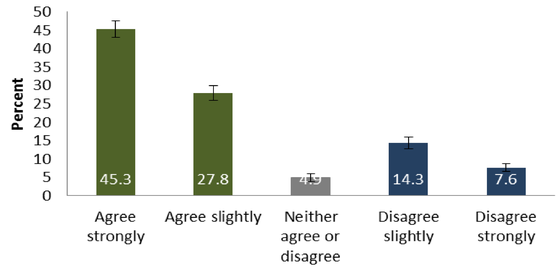


Figure 2
Some formulas are just as healthy for babies as breast milk

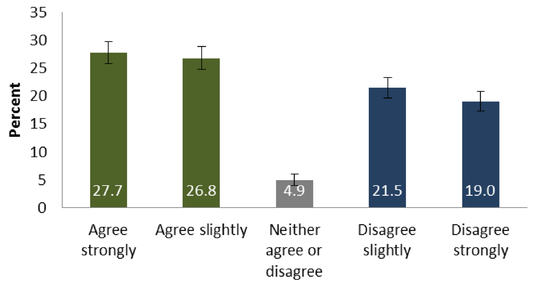


Figure 3
Agree (strongly or slightly) that formulas are just as healthy for babies as breast milk by Race/Ethnicity.

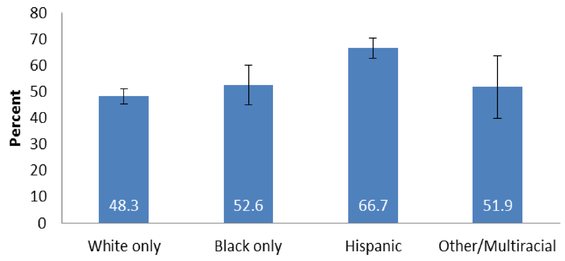


Figure 4
Agree (strongly or slightly) that formulas are just as healthy for babies as breast milk by Education

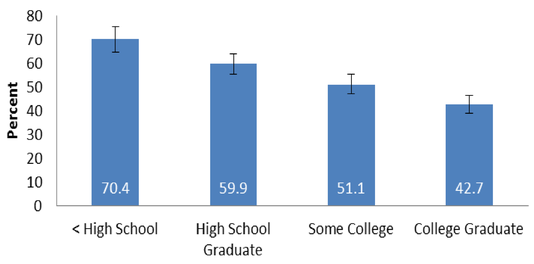


Figure 5
Agree (strongly or slightly) that hospitals should not advertise baby formula for formula manufacturers, by education.

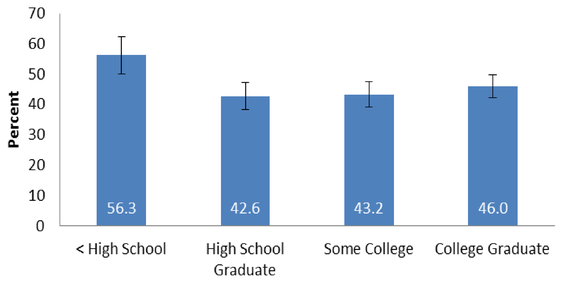


Figure 6
When it comes to infant feeding, healthcare providers should promote

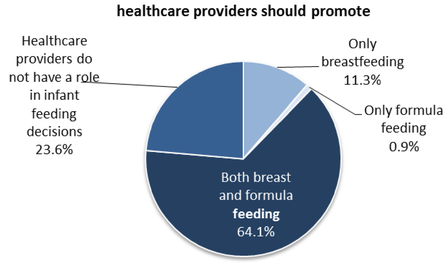
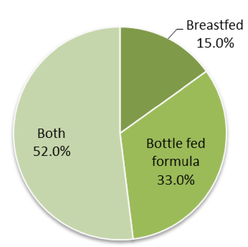


Figure 7
Was this child breastfed, bottle fed formula, or both?



Results

- This study found that the majority of Texans (92.5% overall) have a positive attitude towards breastfeeding in public, with 15.8% thinking it is very positive, 19.6% thinking it is normal and appropriate, 35.4% thinking it does not bother them, and 21.7% thinking it does not bother them if the woman covers herself or is discreet (Table 1).
- Most Texans agree, either slightly or strongly (72.8%), that a woman should be able to breastfeed her baby in public even if it makes another person uncomfortable (Figure 1). The rate of agreement was significantly higher for females than for males and significantly higher for middle age groups (30 to 44 and 45 to 64) than for younger (18 to 24) and older age groups (65 and older).
- A majority of Texans also agree (85.5%) that people in their community think it is important for women to breastfeed. Statistically significant differences were seen between married (85.3%) and unmarried (80.6%) Texans and between those with children in the household (87.2%) and those without children in the household (80.0%). The rate of agreement was significantly lower than the state rate for Texans in Public Health Region 8 (74.9%) and significantly higher than the state rate for Texans in Public Health Region 10 (93.5%).
- Just over half (54.5%) of Texans, however, believe some formulas are just as healthy as breast milk (Figure 2) with significantly higher rates for females (58.9%) than males (50.3%), and significantly higher rates for Hispanics than White only or Black only (Figure 3). Agreement was highest for the lowest education group and lowest for the highest education group with significant differences between each group (Figure 4). Agreement was also higher for those with a household income of less than $25,000 (63.1%) than those with household incomes between $25,000 to less than $50,000 (53.5%) and higher for those with children in the household (60.0%) than those without children in the household (51.5%). Texans in Public Health Region 7 had a significant lower level of agreement (45.7%) than the state.
- Just under half of Texans agree (45.9%) that hospitals should not advertise baby formula for formula manufacturers. Hispanic Texans had significant higher rate of agreement at 51.5% compared to Black Texans at 36.7%. Agreement of Texans with less than a high school education were significantly higher in than Texans in other education groups (Figure 5).
- Most Texans (85.1%) believe that breastfeeding saves money in health care costs with females (88.4%) having a significant higher rate of agreement than males (81.5%) and married Texans (88.2%) having a significant higher rate of agreement than unmarried Texans (81.9%).
- Almost a quarter (23.6%) of respondents reported that health professionals should not be involved in infant feeding decisions (Figure 6).
- Texans with a child under the age of 18 still living in the home reported that 15.0% were breastfed, 33.0% were bottle fed formula, and 52.0% were both breastfed and bottle fed formula (Figure 7).

Conclusions

- It is encouraging to note that most respondents held positive attitudes towards breastfeeding, however some still have misconceptions about the benefits of breast milk versus formula and hospital and health care professional's role in promoting breastfeeding.
- Obstetricians play a major role in guiding the infant feeding choices of their pregnant patients[3] and support from health professionals could have a significant impact on breastfeeding initiation.
- At the same time, health experts say formula samples in hospitals can influence women away from breastfeeding and hospitals shouldn't be a marketing avenue for formula companies.
- Health programs should continue to emphasize the benefits of breast milk, and aim to improve people's understanding of health care providers' role in breastfeeding decisions and address the potential implications of formula marketing in hospitals.

Sources

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[5] Odom E, Li R, Scanlon KS, Perrine C, Grummer-Strawn LM. Reasons for earlier than desired cessation of breastfeeding. Pediatrics. 2013;131:e726-3732.

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Collecting, Transferring, Validating, and Reporting Preventive Dental Service (PDS) Data Electronically in Texas Using EPI INFO™ 7

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INTRODUCTION

The Oral Health Program (OHP) at the Department of State Health Services (DSHS) strives to identify the oral health needs of Texans and to provide resources to meet those needs. Public health dental professionals, located in Austin, Lubbock, Tyler, Houston, San Antonio, and Midland, provide preventive dental services (PDS) to eligible low-income, underserved, preschool, and school aged children who are Texas residents. These public health dental professionals, located in the aforementioned six cities, consist of five regional dental teams (RDT) across the State of Texas. Prior to state fiscal year (SFY) 2015, annual PDS data was collected on paper and stored within each region. Only aggregated count information was provided to the OHP at DSHS.

The purpose of this project was to create and examine a data collection system that would electronically collect, securely transfer, validate, and report PDS data from the individual RDTs, while storing all detail client information into a secure database for future analysis at the State level.

METHODS

Using the Form Designer Module in EPI INFO™ 7, a free software tool for public health practices developed by the Center for Disease Control and Prevention (CDC), a two-page form was developed in SFY 2015 to pilot the assembly of data, initially gathered on hardcopy parent permission forms (PPF) and a dental roster, into an electronic format. Together, these forms provide client demographic information, preventive services delivered, and dental outcomes results. From the form design, EPI INFO automatically creates a Microsoft Access™ database, which allows users to enter new data, modify existing data, or search for records.

As entry is complete, data is transported directly from EPI INFO 7 via an encrypted package to a secure server location at DSHS. All transport packages are then imported into one database for validation and reporting.

QUALITY ASSURANCE

A number of queries and macros were developed in the back-end database to give emphasis to quality issues, such as duplication of records, missing data, and to assure data consistency. Performing quality assurance allows for improvements and stabilization of the data for analysis and reporting among the data entered by the RDT. Results from these queries are sent to each region on a regular basis for correction in the front-end data entry form. Once completed, the RDT resends a transport package noting appropriate data changes.

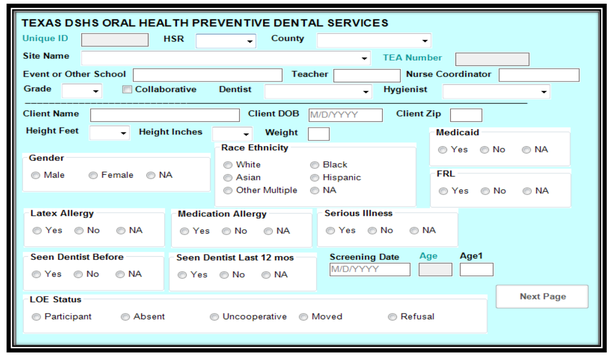
REPORTING

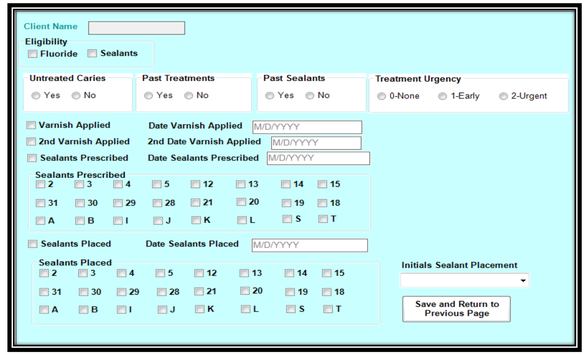
Based on input from the OHP, several standard reports are available in the back-end database as required. The value of service report is used to provide aggregated information to the visited sites. These reports include information about the counts and dollar values for the PDSs performed by each RDT during the SFY. In addition, there are reports with counts for unduplicated services provided and dental outcomes, as well as others, for reporting at the regional and state levels. Prior to releasing any report, data verifications are performed for any additional quality issues.

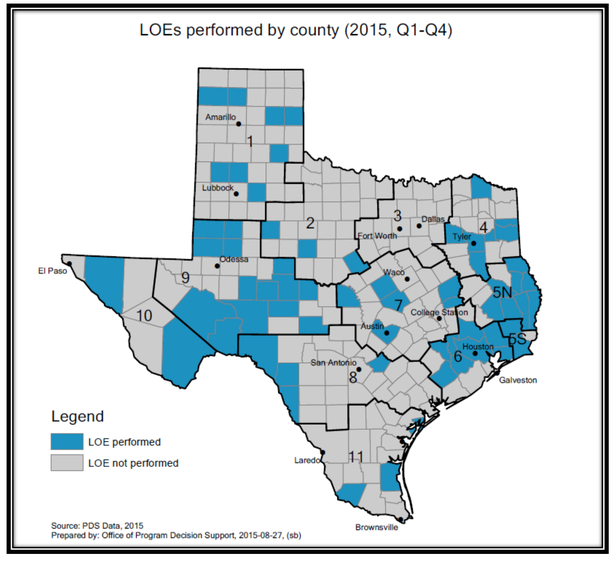
RESULTS

At the completion of SFY 2015, excluding non-DSHS led collaborations, a total of 8,462 limited oral evaluations (LOE), 8,031 fluoride varnishes, 754 second fluoride varnishes, and 1,076 sealants (5,027 teeth) were provided to clients by the regional dental teams. These LOEs were performed by the RDT (five dentists and five hygienists in total) in 65 of the 254 counties in Texas.

Additionally, at the completion of the pilot, a comparison was made between hand-calculated counts by one of the regional dentists, who covers two health service regions, to the same results reported by the newly-automated system. Based on calculations, the overall percent difference between the final manual versus automated value of service counts was less than 0.5%.







Data Source PDS 2015 Database
DSHS, FCHS, OPDS (DS) 10/2015

Summary Report for Oral Health Outcomes

Fiscal Year 2015 (9/1/14-8/31/15)	Untreated Caries	Past Treatments	Past Sealants	No Treatment Need	Early Treatment Need	Urgent Treatment Need
Total	2201	3394	2341	6310	1953	197
Q1	1161	1697	1126	3659	1043	84
Q2	369	629	397	1119	354	40
Q3	549	952	707	1355	478	61
Q4	95	116	111	177	78	12

Summary Report for Unduplicated Services

Fiscal Year 2015 (9/1/14-8/31/15)	# Children with Fluoride Varnish Only	# Children with Sealants Only	# Children with Fluoride Varnish and Sealants	Unduplicated Children Receiving Preventive Dental Services
Total	7022	67	1009	8098
Quarter 1	2972	3	195	3170
Quarter 2	1905	15	318	2238
Quarter 3	1975	49	403	2427
Quarter 4	170	0	93	263

NEXT STEPS/FUTURE PLANS

An updated electronic form has been developed and deployed to the RDT for SFY 2016 PDS data collection. The form was updated slightly to include information as required by the regional and state oral health teams. The back-end queries, macros, and reports remain similar. Data collection started in September 2015 and will continue through August 2016.

Future plans include aggregating the data for several state fiscal years and possibly performing an interactive post-stratification procedure, known as raking, to adjust for known or expected discrepancies between the response group and population, so as to generalize results to Texas.

Texas PRAMS Response Rates and WIC Demographics: 2009-2012 and Implementation Plan for 2016

Tanya J. Guthrie, Ph.D. and Dorothy J. Mandell, Ph.D.
Texas Department of State Health Services, Office of Program Decision Support

INTRODUCTION

The (weighted) response rate for Texas PRAMS has decreased each year, from 67% in 2009 to 59% in 2012. Not since 2010, has Texas met the Centers for Disease Control and Prevention (CDC) response rate criteria of 65%. Efforts to increase the response rate from 2009 to 2012 have included offering a $10 gift card to Target or Walmart as incentive for completing the survey. Moreover, during the 2012 birth year data collection (Phase 7), this incentive was increased to $20.

The purpose of this analysis was to examine Texas PRAMS annual response rates from 2009 to 2012 according to the sample's six strata that are based on race/ethnicity (White/Other, Black, or Hispanic) and low birth weight (LBW) or normal birth weight (NBW). Response rates for each of the six strata were analyzed overall (unweighted), and then according to whether the survey was completed by mail or phone. Additionally, undeliverable mail rates were analyzed by stratum.

To better understand the influence of certain demographics, age and participation in the Texas Women, Infants and Children (WIC) program were also analyzed in each stratum among nonrespondents versus respondents.

Examination of these response rates and WIC demographics is essential to better understand and plan where future efforts are needed so as to increase response rates in 2016 (Phase 8).

RESPONSE RATES

Overall

Overall (unweighted) response rates have decreased from 2009 to 2012, except in one stratum, Black LBW.

STRATUM	2012	CHANGE SINCE 2009
White/Other LBW	53.2%	decreased 15.8%
Black LBW	59.0%	increased 4.6%
Hispanic LBW	52.7%	decreased 10.9%
White/Other NBW	57.7%	decreased 13.2%
Black NBW	54.6%	decreased 3.0%
Hispanic NBW	60.7%	decreased 5.6%

Mail

Mail response rates have decreased from 2009 to 2012, with the exception of one stratum, namely Black NBW.

STRATUM	2012	CHANGE SINCE 2009
White/Other LBW	45.4%	decreased 15.3%
Black LBW	39.8%	decreased 0.1%
Hispanic LBW	37.6%	decreased 10.0%
White/Other NBW	51.5%	decreased 10.0%
Black NBW	41.9%	increased 1.9%
Hispanic NBW	46.4%	decreased 3.2%

Phone

Phone response rates have decreased from 2009 to 2012, except for Black LBW.

STRATUM	2012	CHANGE SINCE 2009
White/Other LBW	7.8%	decreased 0.4%
Black LBW	19.3%	increased 4.7%
Hispanic LBW	15.1%	decreased 0.9%
White/Other NBW	6.2%	decreased 3.3%
Black NBW	12.7%	decreased 4.9%
Hispanic NBW	14.3%	decreased 2.5%

Undeliverable Mail

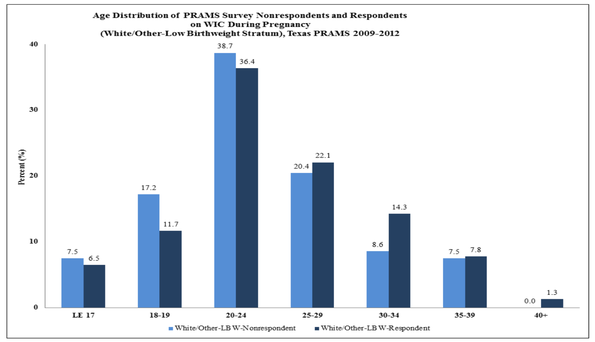
Undeliverable mail rates across all six strata have increased from 2009 to 2012.

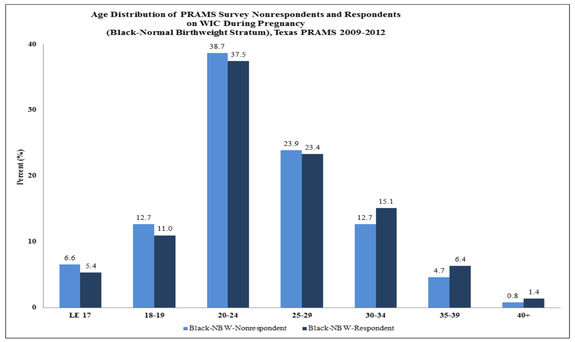
STRATUM	2012	CHANGE SINCE 2009
White/Other LBW	9.2%	increased 4.2%
Black LBW	14.5%	increased 7.1%
Hispanic LBW	12.4%	increased 5.9%
White/Other NBW	6.0%	increased 3.5%
Black NBW	15.8%	increased 9.2%
Hispanic NBW	8.1%	increased 1.4%

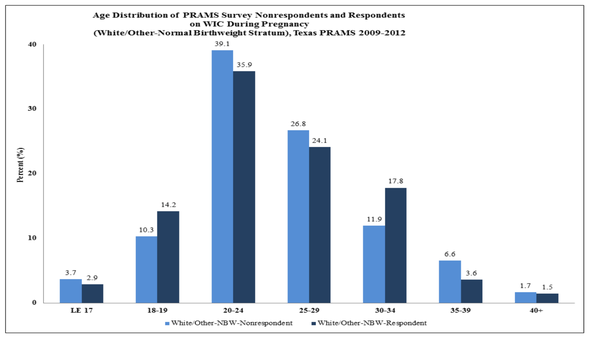
WIC DEMOGRAPHICS

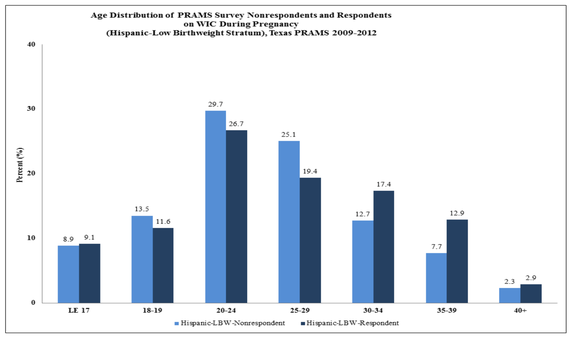
Based on the 2011 Texas PRAMS data, 54.8% (C.I.: 51.9-57.7) were on WIC during pregnancy (variable MAT_WIC). WIC participation in Texas PRAMS is important because both nonrespondents and respondents reported WIC participation on the birth certificate variables. In addition, a higher proportion of younger women (age 24 and under) were nonrespondents compared to respondents.

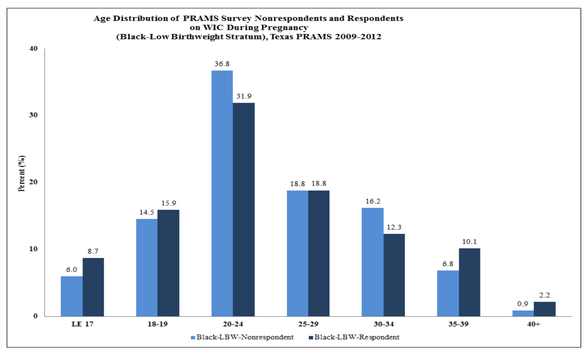
The figures to the right provide the age distribution of respondents versus nonrespondents in the 2009-2012 data who reported "yes" to WIC participation during pregnancy by each stratum.

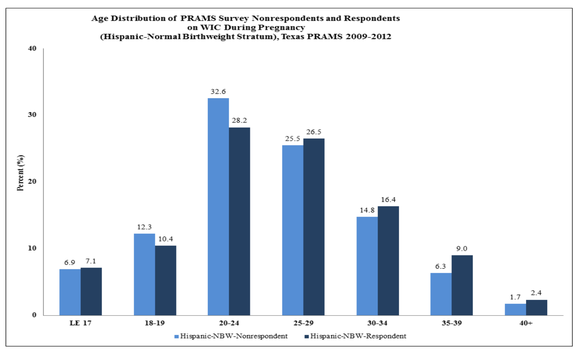












IMPLEMENTATION PLAN FOR 2016

Both the response rates and WIC demographics point toward specific efforts that are needed in 2016 to increase the Texas PRAMS response rate:

- Increase exposure of PRAMS and its importance for informing policy and practice in maternal and child health in WIC clinics throughout Texas;
- Redesign the Texas PRAMS image and survey cover to better appeal to younger women;
- Utilize the CDC PIDS web component for greater convenience; and
- Continue to offer a $20 gift card incentive to all Texas PRAMS respondents.

Relation Between Maternal Characteristics and Stress Among Recent Mothers in Texas

Michelle Kormondy[1], Duke J. Ruktanonchai[2], MD, Dorothy J. Mandell[1], PhD, Erin Wickerham[1], Veronica Pedregon[1], Mark Canfield, PhD[1]
[1]Texas Department of State Health Services, [2]Centers for Disease Control and Prevention

Introduction

• Prior population-based studies examining the relation between stress and maternal characteristics used multi-state, pooled data from the Pregnancy Risk Assessment Monitoring System (PRAMS) to evaluate the prevalence of stress among women who recently gave birth. These studies have shown stress to be predictive of negative birth outcomes.

• These studies focused on either the number of stressors or the binary type of stress that women experienced. None examined the degree to which women experienced different types of stress.

Study Questions

• Texas PRAMS data from 2010 was analyzed to examine how mothers' experience of four different types of stress (financial, emotional, traumatic, and partner) related to demographics, birth outcomes, and behavioral factors.

Methods

Stress Variables Examined

• 1,617 mothers answered all questions and were included in the analysis.

• Women were asked thirteen yes/no questions about stressful life events during the twelve months before their new baby was born.

Analyses

1. Polychoric Principal Components Analysis with varimax rotation was used on the 13 stress questions to create 4 stress indicators.

2. Linear regression analyses were used to examine the ways the types of stress related to demographics. Factor loadings (standardized scoring coefficients) were retained and used in regression analyses.

3. Logistic regression analyses were used to examine the ways each type of stress was associated with the behavioral factors and pregnancy outcomes. Each model included all stress and demographic factors.

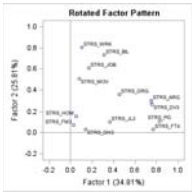
Results

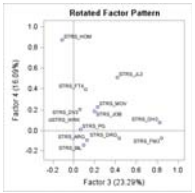
Prinicipal Components Analysis

• Four factors with eigenvalues > 1 were retained.
• The four factors accounted for 64.33% of total variance.

Stress Questions by Factor with Highest Loading

Factor1	Factor2	Factor3	Factor4
Partner	Financial	Traumatic	Emotional
Divorce	Moved	Family Member Ill	Homeless
Argue Lots	Partner Lost Job	Others Died	Partner In Jail
Physical Fight	Mom Lost Job		
Others Had Drug Problem	Couldn't Pay Bill		
Partner Disapproved of Pregnancy			





Linear Regressions

• Black women had higher partner and emotional stress compared to white women.

• All other age groups had lower financial stress compared to 20-24 year-old mothers.

• Women with high school or less had higher emotional stress compared to women with more than high school education.

Estimated Regression Coefficients

Demographic	Partner	Financial	Traumatic	Emotional
	ß(SE)	ß(SE)	ß(SE)	ß(SE)
Age group (yrs)		*		
17 - 19	0.08 (0.11)	-0.33 (0.11)*	0.01 (0.12)	0.05 (0.11)
20 - 24	Ref	Ref	Ref	Ref
25 - 34	-0.13 (0.07)	-0.26 (0.08)*	-0.17 (0.07)*	0.04 (0.08)
35+	-0.14 (0.08)	-0.38 (0.10)*	-0.13 (0.10)	0.03 (0.10)
Race/Ethnicity	*	*	*	*
White	Ref	Ref	Ref	Ref
Black	0.26 (0.07)*	0.03 (0.07)	-0.04 (0.07)	0.17 (0.06)*
Hispanic	-0.08 (0.07)	0.14 (0.08)	-0.08 (0.07)	0.12 (0.07)
Other	0.09 (0.14)	-0.24 (0.08)*	-0.27 (0.09)*	0.09 (0.06)
Border County				
No	Ref	Ref	Ref	Ref
Yes	0.06 (0.07)	-0.10 (0.09)	-0.10 (0.07)	0.05 (0.09)
Medicaid				
No	Ref	Ref	Ref	Ref
Yes	0.03 (0.07)	0.01 (0.11)	0.10 (0.09)	-0.14 (0.08)
Education				*
<High School	0.04 (0.09)	0.07 (0.09)	-0.10 (0.08)	0.44 (0.09)*
High School	0.06 (0.07)	0.09 (0.08)	-0.14 (0.07)*	0.28 (0.08)*
>High School	Ref	Ref	Ref	Ref

*Statistically Significant

Results

Logistic Regressions

• Higher stress of any type was associated with increased odds of smoking during pregnancy.

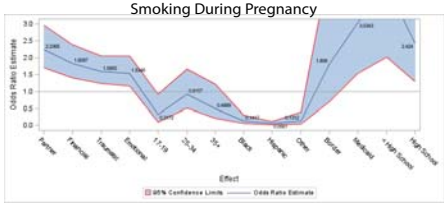
• Higher partner or emotional stress was associated with increased odds of unintended pregnancy.

• Higher financial stress was associated with increased odds of low birth weight.

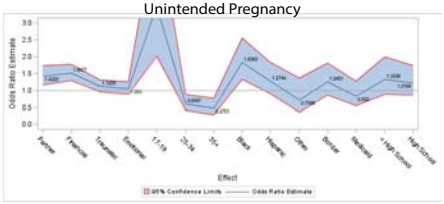
Analysis of Effects

		Smoking		Intention		Low Weight	
Effect	df	X^2	p	X^2	p	X^2	p
Partner	1	32.10	<.01	11.50	<.01	0.06	0.80
Financial	1	19.86	<.01	24.85	<.01	5.31	<.01
Traumatic	1	13.03	<.01	2.07	0.15	1.86	0.17
Emotional	1	8.57	<.01	0.32	0.57	0.02	0.88
Age Group	3	6.26	0.10	46.43	<.01	6.94	0.07
Race/Ethnicity	3	77.03	<.01	16.40	<.01	111.56	<.01
Border	1	1.45	0.23	1.31	0.25	0.62	0.43
Medicaid	1	10.08	<.01	0.71	0.40	1.71	0.19
Education	2	15.90	<.01	2.32	0.31	4.45	0.11

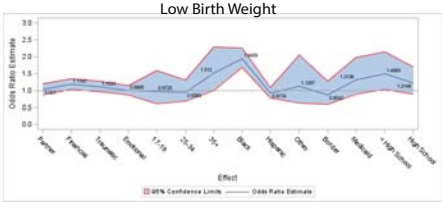
Smoking During Pregnancy



Unintended Pregnancy



Low Birth Weight



Conclusion

•As with previous published studies using PRAMS, the stress questions grouped into four types of stress.

•This study demonstrates the importance of assessing levels of different types of stress, not just the experience of stress during pregnancy.

• Both tobacco use and stress have been shown to be strongly related to adverse pregnancy outcomes. The interrelation between them in this study suggests that they may be additive or one is meditating the other. The relation between these risk factors and their ultimate relation with adverse pregnancy outcomes warrants further study.

•Unintended pregnancy has been linked to smoking during pregnancy and other high risk maternal behaviors. The finding in this study showing that stress is related to both smoking and unintended pregnancy also suggests that these risk factors may be additive or that one is mediating the other.

• Additional analyses will be conducted to measure the possible mediating effect of financial stress, pregnancy intention, and tobacco usage during pregnancy.

Public Health Implications

• The relation between smoking, financial stress, and pregnancy intention can give policymakers and public health officials insight into the string of events that may lead a woman to smoke during pregnancy or fail to quit.

• The results from this analysis show insight in to how smoking and social support interventions for pregnant women should be integrated to help mitigate the risk of smoking and stress.

References

1) Lu, M., & Chen, B. (2004). Racial and ethnic disparities in preterm birth: the role of stressful life events. American Journal Of Obstetrics And Gynecology, 191(3), 691-699.
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3) Nkansah-Amankra, S., Luchok, K., Hussey, J., Watkins, K., & Liu, X. (2010). Effects of maternal stress on low birth weight and preterm birth outcomes across neighborhoods of South Carolina, 2000-2003. Maternal & Child Health Journal, 14(2), 215-226.
4) Mandell, D.J., Baeva, S. & Kormondy, M. 2013 Healthy Texas Babies: Databook. Austin, TX: Division for Family and Community Health Services, Texas Department of State Health Services, 2013.

Contact Information

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4220.0

Evolution of CHW Training and Certification in Texas: Getting From Here to There

Tuesday, November 3, 2015: 12:30 p.m. - 2:00 p.m.
Oral

Moderator:
Katharine Nimmons, MSc, MPH
12:30pm
How it all began: The history of CHW certification in Texas
Julie StJohn, DrPH, MA, CHWI and **Beverly MacCarty, M.A.**

12:50pm
What do we know? Evolution of evaluation of CHW certification in Texas
Julie StJohn, DrPH, MA, CHWI and Beverly MacCarty, M.A.

1:10pm
Is CHW certification beneficial? What Texas CHWs say in preliminary evaluation findings
Julie StJohn, DrPH, MA, CHWI and **Beverly MacCarty, M.A.**

1:30pm
We have information, now what? Next steps for evaluating CHW certification in Texas
Julie StJohn, DrPH, MA, CHWI and Beverly MacCarty, M.A.

319734

How it all began: The history of CHW certification in Texas

Tuesday, November 3, 2015 : 12:30 p.m. - 12:50 p.m.
Julie StJohn, DrPH, MA, CHWI, Department of Public Health, Graduate School of Biomedical Sciences, Texas Tech University Health Sciences Center, Abilene, TX
Beverly MacCarty, M.A., Community Health Worker Training and Certification Program, Office of Title V and Family Health, Texas Department of State Health Services, Austin, TX
The Texas Department of State Health Services (DSHS), Promotora/Community Health Worker Training and Certification Program resulted from Senate Bill 1051 (77th Texas Legislative Sessions), which established and operated a training and certification program for persons who act as promotores or community health workers, instructors, and sponsoring institutions/training programs. The CHW Training and Certification program provides leadership to enhance the development and implementation of statewide training and certification standards and administrative rules as pertaining to CHWs, CHW instructors, and CHW training programs. This presentation will briefly describe: 1) the history of the certification program; 2) certification and recertification requirements and approval process for the three certification areas; 3) the Advisory Committee (advises DSHS and the Texas Health and Human Services Commission related to the training and certification of persons working as Promotores or CHWs and is composed of nine members—four certified Promotores/CHWs, two public members, one member with experience in adult education and training of Promotores/CHWs; and two professionals who work with Promotores/CHWs); 4) the core competencies of certification program (communication, interpersonal skills, service coordination, capacity-building, advocacy, teaching, organization, and knowledge base); and 5) certification and recertification data collected since the beginning. This presentation will set the stage for additional speakers to talk about the evolution of evaluation of the training program—with the goal to start evaluating the impact of CHW certification on CHWs, communities served by CHWs, and CHW employers.

Learning Areas:

Administration, management, leadership
Conduct evaluation related to programs, research, and other areas of practice
Implementation of health education strategies, interventions and programs
Planning of health education strategies, interventions, and programs
Public health or related education
Public health or related organizational policy, standards, or other guidelines

Learning Objectives:
Describe how the certification program in Texas started. List the three different certification areas provided by the state CHW program office. Discuss the past evaluation activities and types of data collected.

Keyword(s): Community Health Workers and Promoters, Policy/Policy Development

319744

What do we know? Evolution of evaluation of CHW certification in Texas

Tuesday, November 3, 2015 : 12:50 p.m. - 1:10 p.m.

Julie StJohn, DrPH, MA, CHWI, Department of Public Health, Graduate School of Biomedical Sciences, Texas Tech University Health Sciences Center, Abilene, TX
Beverly MacCarty, M.A., Community Health Worker Training and Certification Program, Office of Title V and Family Health, Texas Department of State Health Services, Austin, TX

The Texas Department of State Health Services Promotor(a) or Community Health Worker Training and Certification Program began in 2001 to provide certification for Texas CHWs, instructors, and training programs. The increased interest in, and value of the CHW workforce continues to grow exponentially as seen by the steady increase in certified CHWs in Texas from 625 in December 2009 to 3,113 in December 2014. Since its inception, the program has conducted process evaluation activities within the program to collect data related to certification and renewal rates, curricula, and initial certification and continuing education courses. However, little is known about the actual benefit of certification for CHWs, residents served by CHWs, or employers of CHWs. In light of the lack of information regarding the potential benefit of CHW certification, Advisory committee members and stakeholders worked together to develop an additional, voluntary evaluation tool to start collecting information to answer questions related to the perceived value of CHW certification in Texas. This presentation will describe: 1) how the idea to do an evaluation survey arose; 2) the evaluation workgroup; 3) the workgroup process; 4) the development and testing of the tool; 5) the adoption of the tool; 6) the online development, testing, and refinement process by the state CHW program office; 7) the communication plan regarding the evaluation tool; and 8) the implementation process. This presentation will build on information presented on CHW certification in Texas and past evaluation data collected and then set the tone to present preliminary findings.

Learning Areas:

Administration, management, leadership
Conduct evaluation related to programs, research, and other areas of practice
Implementation of health education strategies, interventions and programs
Planning of health education strategies, interventions, and programs
Public health or related education
Public health or related laws, regulations, standards, or guidelines

Learning Objectives:
Describe how the idea to develop a new evaluation tool evolved. List the steps involved in developing the new evaluation tool. Describe changes in Texas CHW certification evaluation over time.

319745

Is CHW certification beneficial? What Texas CHWs say in preliminary evaluation findings

Tuesday, November 3, 2015 : 1:10 p.m. - 1:30 p.m.

Julie StJohn, DrPH, MA, CHWI, Department of Public Health, Graduate School of Biomedical Sciences, Texas Tech University Health Sciences Center, Abilene, TX
Beverly MacCarty, M.A., Community Health Worker Training and Certification Program, Office of Title V and Family Health, Texas Department of State Health Services, Austin, TX

The Texas Department of State Health Services Promotor(a) or Community Health Worker Training and Certification Program has certified CHWs, instructors, and training programs for over a decade. Prior to 2015, the program collected data related to certification and renewal rates, curricula, and initial certification and continuing education courses. However, the program had not collected data in regards to the actual benefit of certification for CHWs, residents served by CHWs, or employers of CHWs. Given the growing rate of certified CHWs in Texas (and nationally) and the number of employers hiring CHWs, there is a need to understand if and how certification of CHWs makes a differences in terms of perceived benefits, patient outcomes, salary, etc. In light of the lack of information regarding the potential benefit of CHW certification, a workgroup developed and tested an evaluation tool, which the program office developed, tested, and implemented in the spring of 2015. This presentation will highlight: 1) the format and process to complete the evaluation tool (online, voluntary, CHWs are requested to complete the survey when filling out their recertification application every two years); 2) information collected on the evaluation tool; 3) preliminary findings based on data collected from the new evaluation tool; and 4) how the findings will be used for program improvement. This presentation will build on information presented on CHW certification in Texas and past evaluation data collected and then set the tone to hear about CHWs' perceptions of the benefits and negative aspects of CHW certification in Texas.

Learning Areas:

Administration, management, leadership
Conduct evaluation related to programs, research, and other areas of practice
Implementation of health education strategies, interventions and programs
Planning of health education strategies, interventions, and programs
Public health or related education
Public health or related laws, regulations, standards, or guidelines

Learning Objectives:
List the information collected on the new evaluation tool. Describe the preliminary findings from the data collected. Discuss how the findings may be used for program improvement.

Keyword(s): Community Health Workers and Promoters, Policy/Policy Development

319747

We have information, now what? Next steps for evaluating CHW certification in Texas

Tuesday, November 3, 2015 : 1:30 p.m. - 1:50 p.m.

Julie StJohn, DrPH, MA, CHWI, Department of Public Health, Graduate School of Biomedical Sciences, Texas Tech University Health Sciences Center, Abilene, TX
Beverly MacCarty, M.A., Community Health Worker Training and Certification Program, Office of Title V and Family Health, Texas Department of State Health Services, Austin, TX
The Texas Department of State Health Services (DSHS), Promotora/Community Health Worker Training and Certification Program resulted from Senate Bill 1051 (77th Texas Legislative Sessions), which established and operated a training and certification program for promotores/CHWs, instructors, and sponsoring institutions/training programs in 2001. Prior to 2015, the program collected data related to certification and renewal rates, curricula, and initial certification and continuing education courses. To attempt to answer the question of whether or not certification of CHWs makes a difference in terms of perceived benefits, employment, salary, etc., the program office—in coordination with the State CHW Advisory Committee—developed and implemented an online, voluntary evaluation that CHWs can choose to complete during their recertification application process every two years. This presentation will: 1) highlight CHWs' perspectives on the benefit of CHW certification (both qualitative and quantitative data); 2) discuss lessons learned to date in regards to collecting this type of data; and 3) facilitate a dialogue with the audience about future directions and need in terms of the benefits or negative aspects of CHW certification. This presentation will build on information presented on CHW certification in Texas and past evaluation data collected, description of the new evaluation tool and implementation process, and the preliminary findings from the new evaluation tool. We hope to have a CHW give this part of the presentation.

Learning Areas:

Administration, management, leadership
Conduct evaluation related to programs, research, and other areas of practice
Implementation of health education strategies, interventions and programs
Planning of health education strategies, interventions, and programs
Public health or related education
Public health or related laws, regulations, standards, or guidelines

Learning Objectives:
List potential benefits identified by Texas CHWS of CHW certification. Describe lessons learned in regards to collecting data pertaining to the benefits of CHW certification. Discuss future steps related to examining potential benefits or negatives aspects of CHW certification.

Keyword(s): Community Health Workers and Promoters, Policy/Policy Development

Right From the Start: Collaborating Across Sectors for Breastfeeding Support in Texas

Growing Healthy Texas: Supporting Positive Health Outcomes through Collaboration
Brownsville, TX
July 8, 2015
Julie Stagg, MSN, RN, IBCLC, RLC
DSHS State Breastfeeding Coordinator
Julie.Stagg@dshs.state.tx.us

TEXAS Department of State Health Services

Imagine…

" If a new vaccine became available that could prevent one million or more child deaths a year, and that was, moreover, cheap, safe, administered orally and required no cold chain, it would become an immediate public health imperative…"

"Breastfeeding can do all of this and more"…

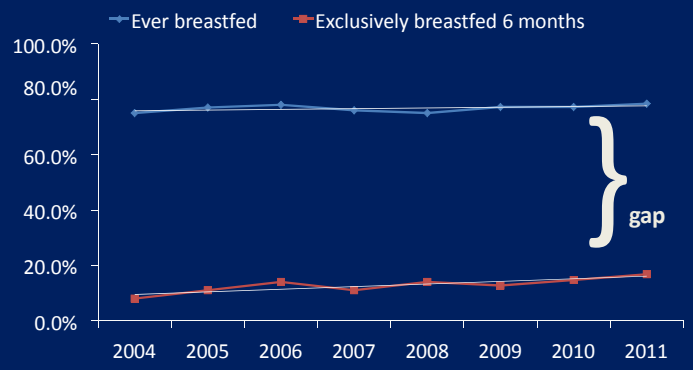
Healthy People 2020 Targets and 2011 Rates (NIS)

Increase the proportion of mothers who breastfeed

	US, 2011	TX, 2011	2020 Target
Ever	79.2	78.4	81.9%
At 6 mos	49.4	42.9	60.6%
At 1 year	26.7	20.9	34.1%
Exclusively through 3 mos	40.7	38.9	46.2%
Exclusively through 6 mos	18.8	16.8	25.5%

Source: U.S. Department of Health and Human Services. HealthyPeople.gov. Available at: http://www.healthy people.gov/2020/default.aspx; CDC 2014 Breastfeeding Report Card. Available: http://www.cdc.gov/breastfeeding/data/reportcard.htm

Breastfeeding Rates, TX, 2004-2011



Source: Centers for Disease Control and Prevention, National Immunization Survey

Breastfeeding is the Overwhelming Norm

Breastfeeding hits 85% for Texas WIC

May 2015

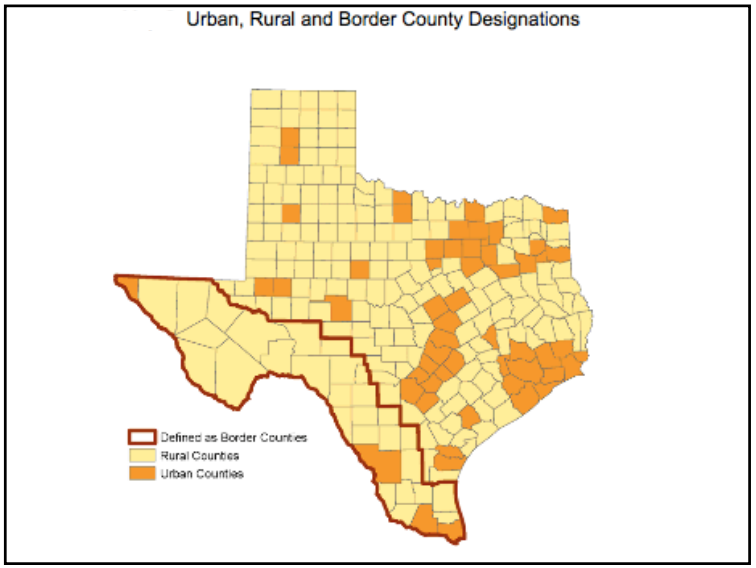
"Breastfeeding can do all of this and more, but it requires its own 'warm chain' of support—that is, skilled care for mothers to build their confidence and show them what to do and protection from harmful practices.

If this warm chain has been lost from the culture, or is faulty, then it must be made good..."

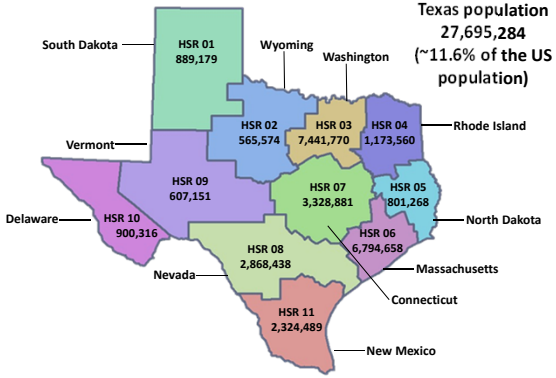
A warm chain for breastfeeding [editorial]. *Lancet*. 1994;344(8932):1239–41.

Some Notes on Making EFFECTIVE Change Happen

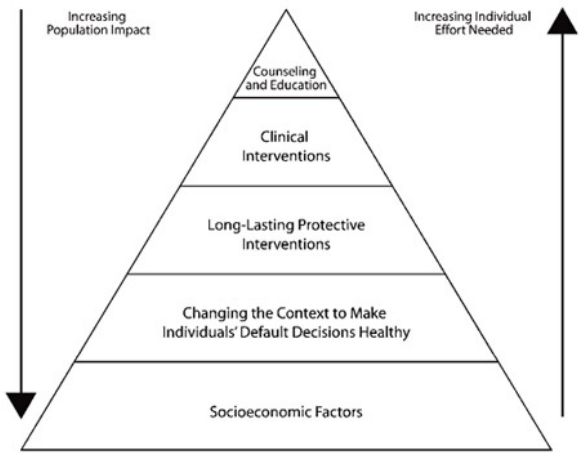
El Paso is closer to San Diego than to Beaumont
Beaumont is closer to Jacksonville than to El Paso
Texarkana is as close to Chicago as to El Paso



Texas Health Services Region's 2015 Population Estimates and States with Comparable Populations



Source: Texas State Data Center, Texas Population 2015 (Projections) . Available: http://www.dshs.state.tx.us/chs/popdat/ST2015.shtm
U.S. Census State and County Quick Facts. http://quickfacts.census.gov/qfd/index.html



Frieden TR. A framework for public health action: the health impact pyramid. *Am J Public Health*. 2010;100(4):590–595.

The Spectrum of Prevention

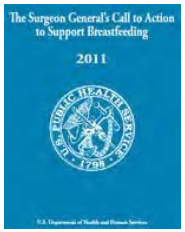
- Influencing Policy & Legislation
- Changing Organizational Practices
- Fostering Coalitions & Networks
- Educating Providers
- Promoting Community Education
- Strengthening Individual Knowledge & Skills

Prevention Institute www.preventioninstitute.org L. Cohen, 1999

Surgeon General's Call to Action to Support Breastfeeding, 2011

- Barriers exist across society that prevent women who **want** to breastfeed from being **supported** to breastfeed.
- Lays forth 20 community actions in 6 domains to support breastfeeding in the United States.

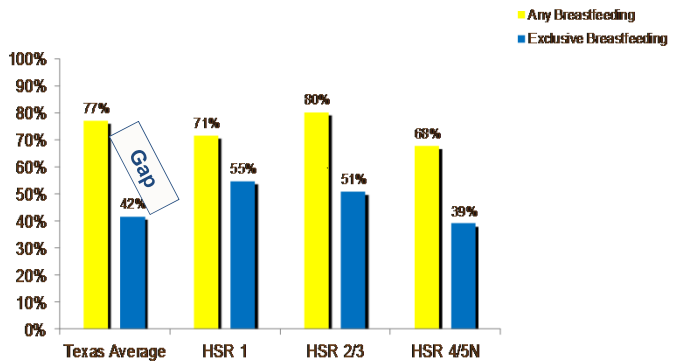
http://www.surgeongeneral.gov/topics/breastfeeding/index.html



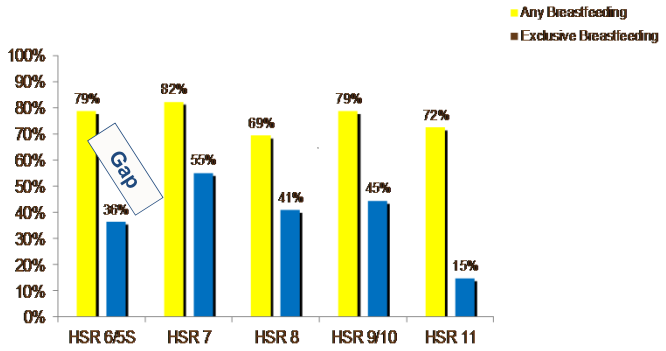
In Health Care

- Ensure that maternity care practices around the United States are fully supportive of breastfeeding.
- Develop systems to guarantee continuity of skilled support for lactation between hospitals and health care settings in the community.
- Educate providers
- Include basic support of breastfeeding as a standard of care
- Ensure access to IBCLCs
- Identify and address obstacles to access to HMBANA donor milk for fragile infants

Percent Any/Exclusive In-Hospital Breastfeeding: 2009



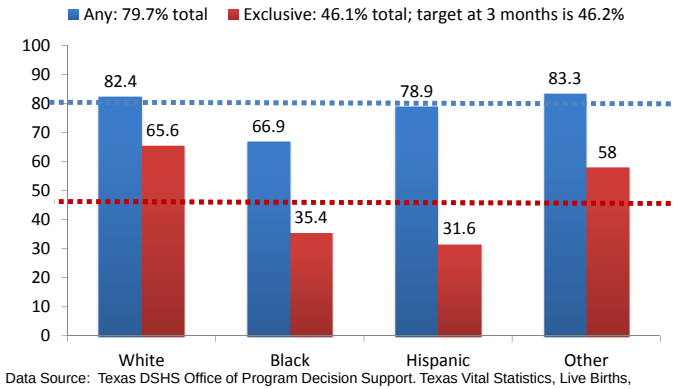
Percent Any/Exclusive In-Hospital Breastfeeding: 2009



Prevalence of Any and Exclusive Breastfeeding, Day 2

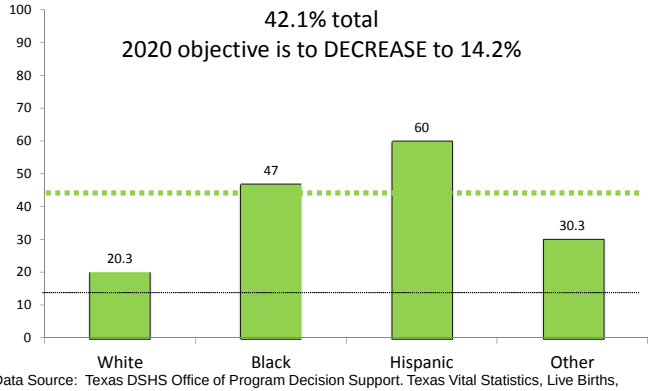
	Any BF	Exclusive BF	Formula Supplementation of BF child
Total	**79.7%**	**46.1%**	**42.1%**
White	82.4%	65.6%	20.3%
Other	83.3%	58.0%	30.3%
Hispanic	78.9%	31.6%	60.0%
Black	66.9%	35.4%	47.0%
Undesignated	74.6%	34.7%	53.4%
Texas Ten Step	80.5%	51.2%	36.4%
Baby-Friendly	81.1%	74.1%	8.5%

Breastfeeding at Day 2, Texas, 2009
Healthy, term, singleton newborns



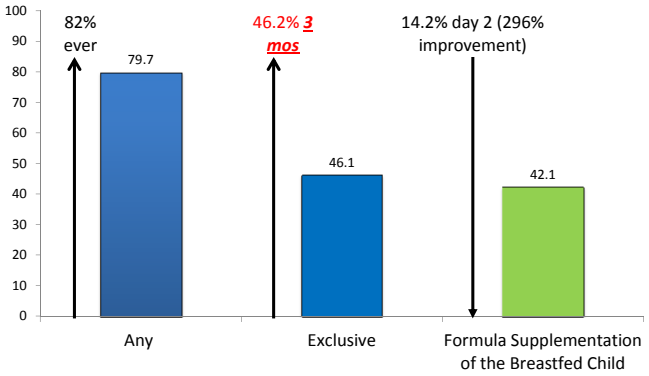
Data Source: Texas DSHS Office of Program Decision Support. Texas Vital Statistics, Live Births, 2009. Newborn Screening Demographics, 2009.

Formula Supplementation of the Breastfed Child by Day 2
Healthy, Term, Singleton Infants Born in TX, 2009



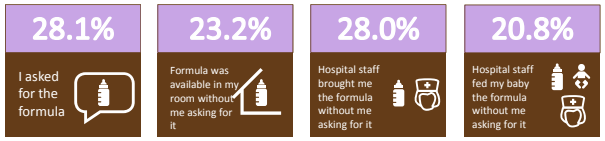
Data Source: Texas DSHS Office of Program Decision Support. Texas Vital Statistics, Live Births, 2009. Newborn Screening Demographics, 2009.

Breastfeeding at Day 2, Texas, 2009
Healthy, term, singleton newborns: Progress toward HP2020 targets



How did mothers receive formula the first time their babies were given formula in the hospital or birthing center?

*Among breastfeeding women whose infants were given formula in the hospital, "How did you get the formula for your baby **the first time** your baby was given formula in the hospital or birthing center?"*

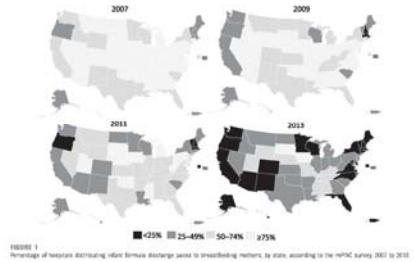


Before your baby was fed formula, did a nurse or doctor talk to you about the differences between breast milk and formula? Yes: 60.5% ; No: 39.5%

WIC IFPS 2013

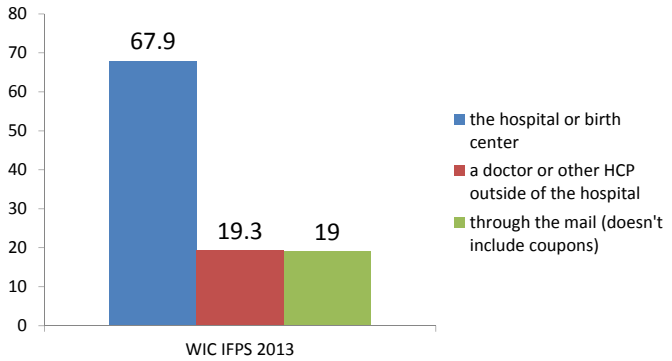
Trends of US Hospitals Distributing Infant Formula Packs to Breastfeeding Mothers

"The percentage of hospitals distributing infant formula discharge packs to breastfeeding mothers was 72.6% in 2007 and 31.6% in 2013, a decrease of 41 percentage points. Distribution declined across all hospital characteristics examined, including facility type, teaching versus nonteaching, and size (annual number of births)."



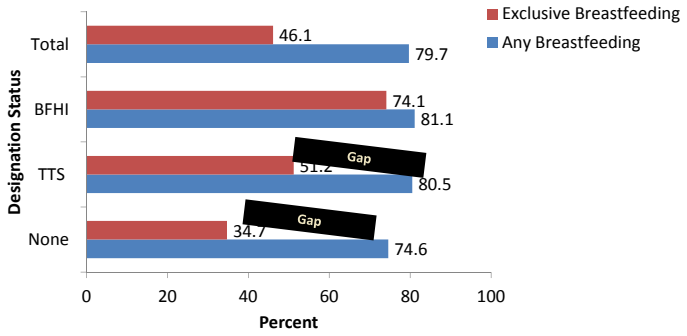
Nelson et al. 2007 to 2013. Pediatrics. 2015.

Received free samples of formula from:



WIC IFPS 2013

Incremental Progress-Closing the Gap Breastfeeding among healthy, term, singleton infants born in Texas, 2009.

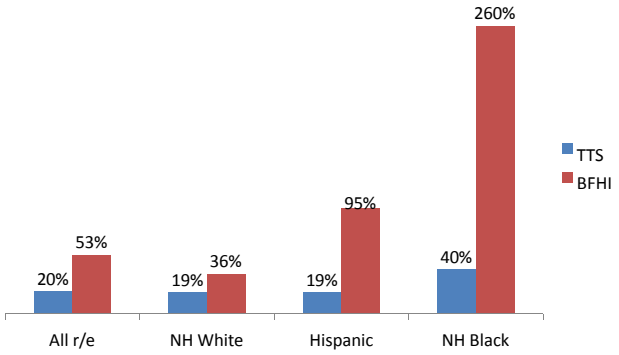


Data Source: Texas DSHS Office of Program Decision Support. Texas Vital Statistics, Live Births, 2009. Newborn Screening, 2009.

Adjusted for Maternal and Infant Characteristics

- Maternal age
- Maternal education
- Family structure (1- or 2-parent household)
- Parity
- Maternal smoking status
- Maternal pre-pregnancy BMI
- Infant's race/ethnicity
- Method of delivery
- WIC and Medicaid status
- Place of residence: Metropolitan/Non-Metropolitan
- Place of residence: border/non-border

TX EBF at Day 2, Healthy Term Singleton newborns, Adjusted Maternal & Infant Factors, in TTS and BFHI designated facilities compared to non-designated facilities

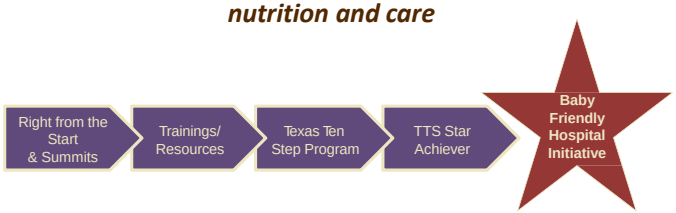


Data Source: Texas DSHS Office of Program Decision Support. Texas Vital Statistics, Provisional Live Births, 2009. Newborn Screening, 2009.

Moving Toward Excellence

TEXAS 10 STEP PROGRAM
Breastfeeding. First step toward a healthy life.

Continuum of DSHS support for quality improvement in infant nutrition and care



From Pre-Contemplation to Full Integration of the Ten Steps to Successful Breastfeeding

TexasTenStep.org

Texas Ten Step Star Achiever Breastfeeding Learning Collaborative

WHAT: A quality improvement initiative to help Texas hospitals create environments in which women's choices concerning breastfeeding can best be supported, with the goal of increasing exclusive breastfeeding in the immediate postpartum period and continuing through six months of age.

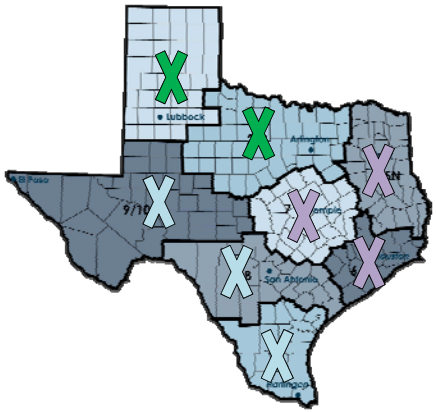
WHO: Up to 81 teams of Texas-based hospitals broken into three geographically-based cohorts.

WHEN: June 2012 to June 2017

FUNDER: This project is supported by the Texas Department of State Health Services (DSHS) through the Texas Women, Infants and Children (WIC) program and the Office of Title V and Family Health.

NICHQ'S ROLE: Facilitate a Breakthrough Series Collaborative to apply quality improvement methodology to improve rates of exclusive breastfeeding in the state of Texas. Provide an environment for rapid cycle Plan-Do-Study-Act (PDSA) testing and the robust exchange of ideas with the support of world-class perinatal and quality improvement experts.

3 Collaborative Cohorts



Hospitals Apply Now!

- Apply to join 41 other TX facilities working to improve maternity care practices to better support breastfeeding mothers and babies.
- All teams must **submit an application online by 5:00pm EST on Friday, June 17, 2015.**
- **Teams must also submit a letter of commitment signed by their CEO, CNO, QI Director, and IT Director with the application**.

http://www.cvent.com/events/texas-ten-step-star-achiever-breastfeeding-learning-collaborative-call-for-applications/event-summary-21d1fbc9657d4f61ace3e12e0de9593c.aspx

http://texastenstep.org/starachiever-texastenstep/Star_Achiever_Ten_Step_Modules/resources-and-tools/

Breastmilk Use in the NICU

- Texas Collaborative for Healthy Mothers and Babies Neonatal Standing Committee
- Coordination with Texas Pediatric Society
  - Mom's own milk
  - human donor milk
- Coordination with HHSC
  - Donor milk study
  - DSHS HHSC Lactation Workgroup
  - Perinatal Advisory Council
- WIC Practicum

Coordination with Payers

- DSHS HHSC Lactation Workgroup:
  - Donor milk
  - Pumps
  - IBCLCs
- Commissioner's Insurance Workgroup

http://www.dshs.state.tx.us/WorkArea/linkit.aspx?LinkIdentifier=id&ItemID=8589994795

Available on ITunes App Store & Google Play: Health Care Provider's Guide to Breastfeeding

Community Initiatives

- **WIC Clinic Services:**
  - Education
  - Peer Counseling and Peer Dads
- **Expanded Primary Health Care Settings**
- **WIC Lactation Resource and Training Centers**
- **Community-based partnerships (e.g. coalitions, food banks, NFP)**
- **Every Ounce Counts**

Breastmilkcounts.org

Community Outreach Partners

Order Publications and Media

www.dshs.state.tx.us/wichd/WICCatalog/contents.shtm

California BABY BEHAVIOR Campaign

http://www.cdph.ca.gov/programs/wicworks/Pages/WICCaliforniaBabyBehaviorCampaign.aspx

Working and Breastfeeding

- What do babies and businesses have in common?
  - They both depend on working, breastfeeding mothers.

Amelia Psmythe, OR

Federal Policy

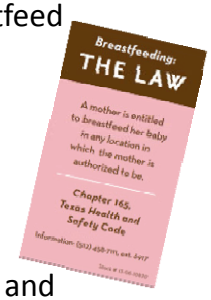
The Fair Labor Standards Act was amended in March 2010 to include the "Reasonable Break Time for Nursing Mothers" provision.

Wage and Hour Division (WHD)

Break Time for Nursing Mothers

Texas Health and Safety Code 165- Breastfeeding (est. 1995)

- Affirms a woman's right to breastfeed in any location in which she "is authorized to be"
- "Mother-Friendly" Business Designation
- DSHS to make recommendations and create a model pilot MFW



HB 786 (eff. Sept 2015)→ Govt. Code 619

(Author: Walle et al; Sponsor: Zaffirini et al)

RIGHT TO EXPRESS BREAST MILK IN THE WORKPLACE

Sec. 619.003. POLICY ON EXPRESSING BREAST MILK. (a) A public employer shall develop a written policy on the expression of breast milk by employees under this chapter.

(b) A policy developed under Subsection (a) must state that the public employer shall:

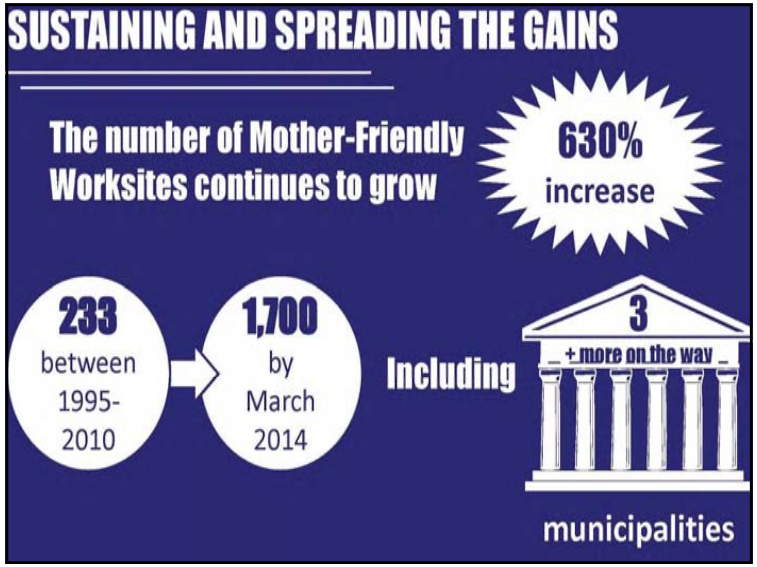
(1) support the practice of expressing breast milk; and

(2) make reasonable accommodations for the needs of employees who express breast milk.

- Employer toolkit
- Outreach partner toolkit
- Peer reviewed (Center TRT) "Practice-Tested" Program
- Breastmilkcounts.com (info, templates)
- Breastfeeding and Returning to Work brochure

They're Mother-Friendly.
How about your city or county?

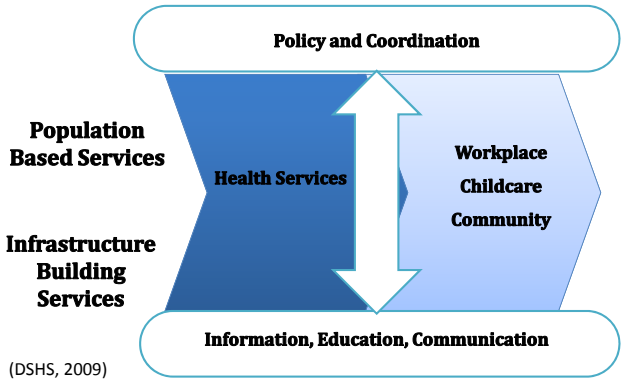
Congratulations
Cities of
Austin,
San Antonio,
and Edinburg!



Coordination and Integration

- DSHS Workgroups
  - Medicaid
  - Better Birth Outcomes
  - Interagency Safe Sleep Workgroup
  - Interagency workgroup on child health outcomes
- DSHS Infant Feeding Workgroup
  - Strategic Planning
- Data to Action

Comprehensive Program of Breastfeeding Support



(DSHS, 2009)

Questions/Discussion

julie.stagg@dshs.state.tx.us

Supporting Working Mothers to Meet Their Personal Breastfeeding Goals

Baylor Scott & White Central Region Annual Perinatal Seminar:
Current Trends in Perinatal Care

April, 2015

Julie Stagg, MSN, RN, IBCLC, RLC
DSHS State Breastfeeding Coordinator
Julie.Stagg@dshs.state.tx.us

TEXAS Department of State Health Services

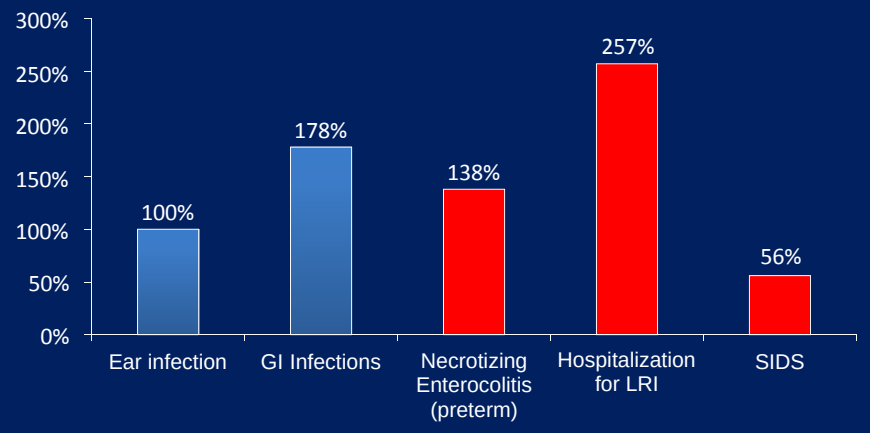
Objectives

- Participants will describe the short- and long-term maternal and child health outcomes associated with suboptimal breastfeeding.
- Participants will contrast the current state of breastfeeding and worksite lactation support in Texas with recommended practices.
- Participants will describe at least three strategies to support working mothers in meeting their breastfeeding goals.

Breastfeeding benefits mom and baby for a lifetime.

- Breastfeeding is the normative standard for infant feeding and protects infants and children from many significant childhood illnesses and chronic diseases.
- The American Academy of Pediatrics and all other health authorities recommend exclusive breastfeeding for the first six months of life and continued breastfeeding for at least a year or longer.

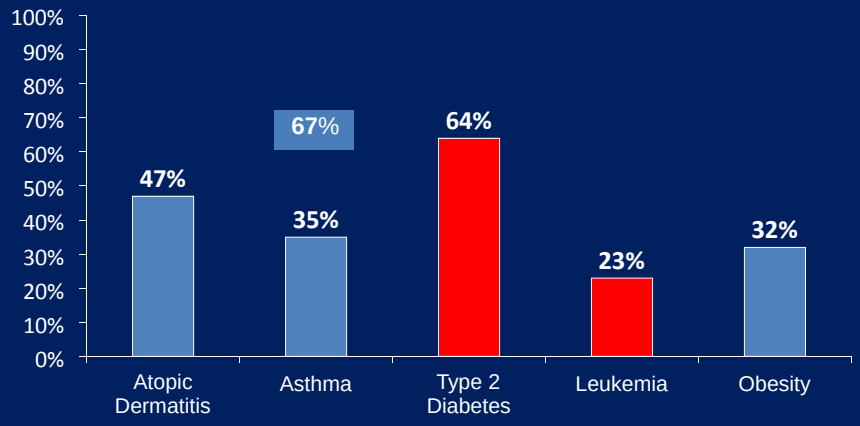
Important for Babies



Increased risk for these minor and major health problems

Source: AHRQ, 2007,
Larry Grummer-Strawn, CDC

Important for Children



Greater risk of these and other long-term health problems

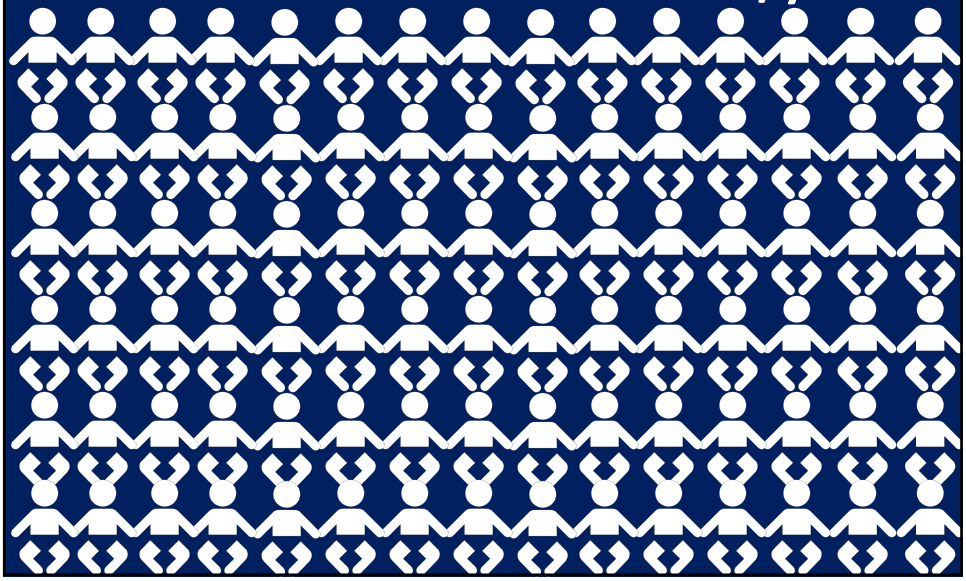
Source: AHRQ, 2007,
Larry Grummer-Strawn, CDC

Important for Mothers. Without it…

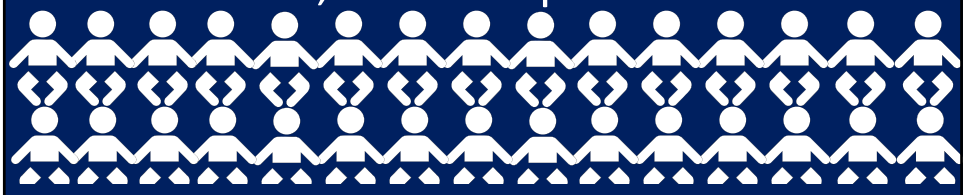
•• Increased postpartum blood loss ••
•• Decreased birth spacing ••
Increased risk for
•• Postpartum depression ••
•• Postpartum weight retention ••
•• Type 2 diabetes ••
•• Rheumatoid arthritis ••
•• Cardiovascular disease ••
•• Hypertension (high blood pressure) ••
•• Hyperlipidemia (cholesterol Imbalance) ••
•• Metabolic Syndrome ••
•• Breast cancer ••
•• Ovarian cancer ••

American Academy of Pediatrics. *Breastfeeding and the Use of Human Milk*. 2012.

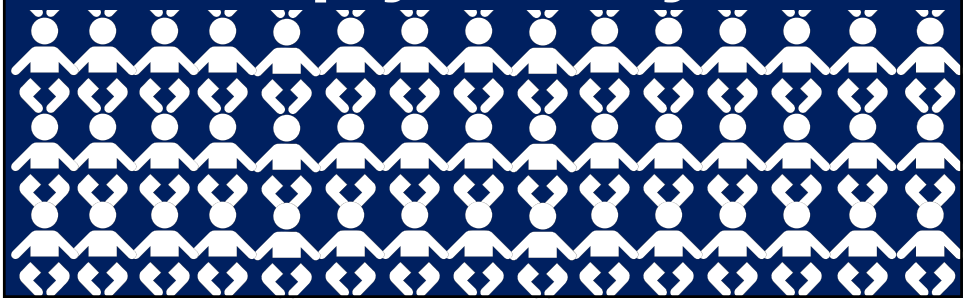
Increased breastfeeding could prevent more than 900 U.S. child deaths/year…



More than 900 child deaths, in the US alone, could be prevented.



Multiply this by 10!



And could also prevent

4,981 excess cases of breast cancer
53,847 cases of hypertension
13,946 cases of myocardial infarction

per year

And could save billions of dollars annually in health care costs and lost productivity.

MORE THAN $31.2 BILLION/YEAR

($13 billion in pediatric- and $18.26 billion in maternal deaths, direct, and indirect medical costs)

- Bartick, M. Reinhold, A. The burden of suboptimal breastfeeding in the United States: A pediatric cost analysis. Pediatrics. 2010.
- Bartick, M. Stuebe, A. et al. Cost Analysis of Maternal Disease Associated With Suboptimal Breastfeeding. Obstetrics & Gynecology. 2013.

Breastfeeding is the Overwhelming Norm

Breastfeeding hits 83.7% for Texas WIC June 2014

More than 80% of new mothers in Texas breastfeed

More than 80% of new mothers in Texas breastfeed

About 3/4th of mothers who *don't* breastfeed *would* breastfeed if barriers were removed

DSHS. Texas WIC Infant Feeding Practices Survey, 2013.

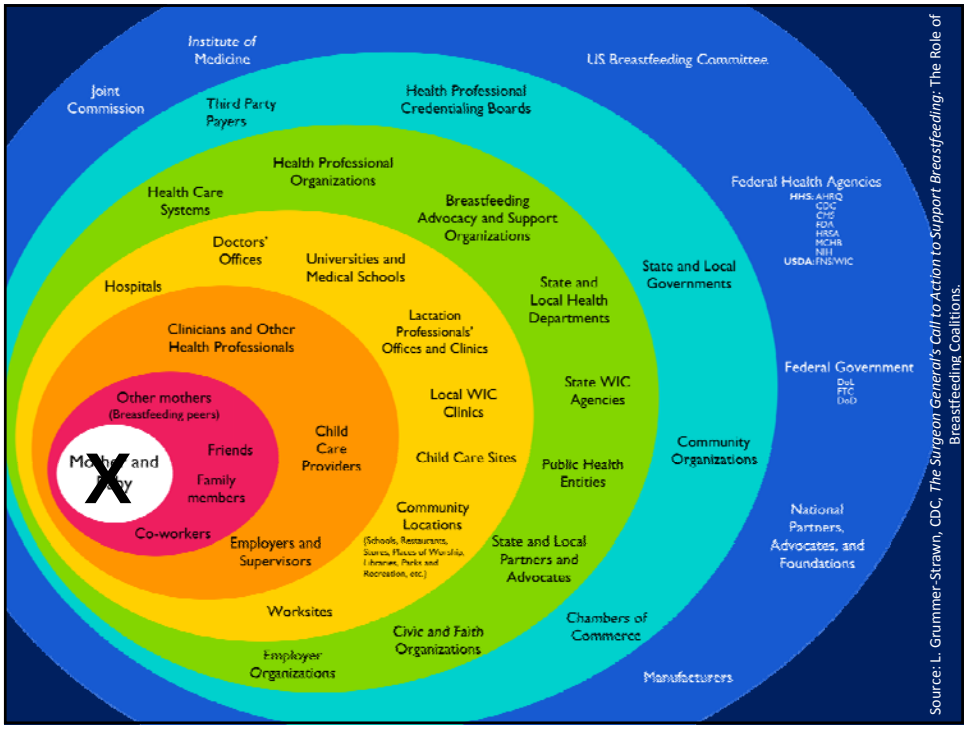
More than 80% of new mothers in Texas breastfeed

About 3/4th of mothers who *don't* breastfeed *would* breastfeed if barriers were removed

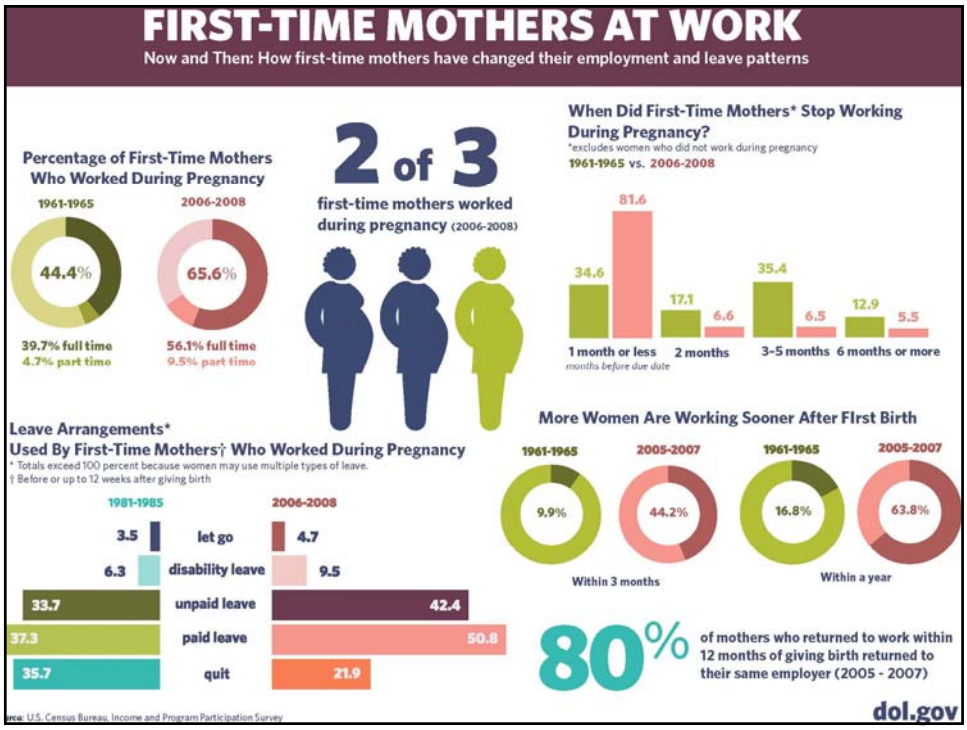
Just over 15% of Texas mothers breastfeed according to medical recommendations


60% of U.S. women will not meet their *OWN* breastfeeding goals.
Source: Centers for Disease Control and Prevention, 2007 Infant Feeding Practices Survey
http://www.cdc.gov/ifps/results/ch3/table3-35.htm


77% of U.S. women who stop breastfeeding before 3 months did not breastfeed for as long as they wanted.
Source: Centers for Disease Control and Prevention, 2007 Infant Feeding Practices Survey
http://www.cdc.gov/ifps/results/ch3/table3-35.htm



Source: L. Grummer-Strawn, CDC, *The Surgeon General's Call to Action to Support Breastfeeding*: The Role of Breastfeeding Coalitions.



DEFINING THE ISSUE

Return to work is the leading barrier to breastfeeding among working mothers

62%
Of women with births in the last 12 months are in the U.S. labor force

62%
Main reason for not breastfeeding among TX working moms' was need to return to work

50%/45%
TX working moms report return to work and "not enough milk" as main reasons for early weaning

58%
TX working moms did not meet their own breastfeeding goals

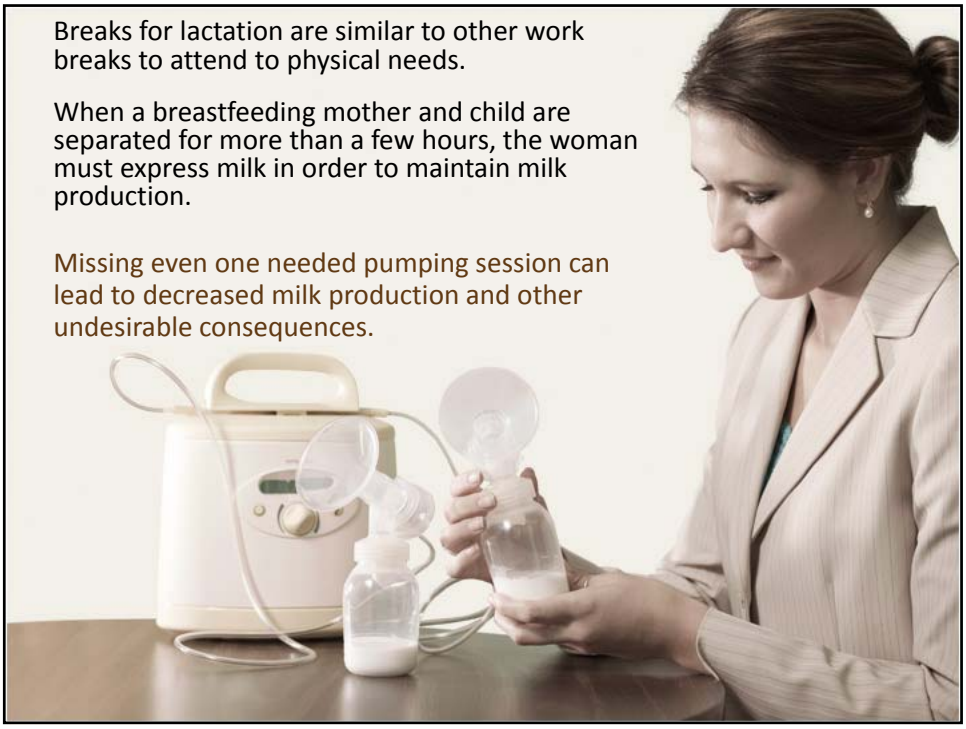
Worksite Support Impacts Outcomes

- Breastfeeding mothers are most likely to wean their infants within the first month after returning to work.
- Only 10% of full-time working women exclusively breastfeed for six months.
- Full-time employment decreases breastfeeding duration by an average of more than eight weeks.

Breaks for lactation are similar to other work breaks to attend to physical needs.

When a breastfeeding mother and child are separated for more than a few hours, the woman must express milk in order to maintain milk production.

Missing even one needed pumping session can lead to decreased milk production and other undesirable consequences.



An Unspoken Need

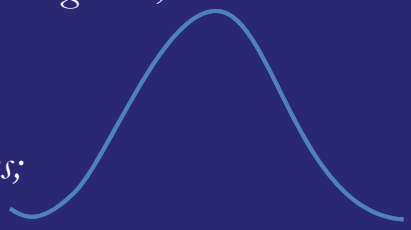
- Many women are uncomfortable talking about their choice to breastfeed or their needs in the workplace to maintain their milk supply.
- Because employers are not hearing about it from their staff, many employers do not realize that there is a need.

Mothers' Experiences

Fear of asking
"Winged it", with rare success

Denied accommodations; experienced harassment

Supportive workplaces



WORKSITE LACTATION SUPPORT

An Easy Solution

TEXAS Department of State Health Services

Worksite lactation support

Definition: Basic arrangements that allow mothers to comfortably express and store breastmilk when separated from their babies during the work day.

Simple. Easy. Affordable.

- Flexible programs can be designed to meet the needs of both the employer and employee.
- With a little creativity and commitment, supportive environments can be created in just about *any* work setting.

Business Case

Higher rate and quicker postpartum return-to-work

Fewer/less severe childhood illnesses and lower costs

Fewer absences of mothers and fathers

Greater sense of work-life balance

Increased ability to focus on job responsibilities

Reduced turnover

Higher job satisfaction and increased loyalty

Good for Texas

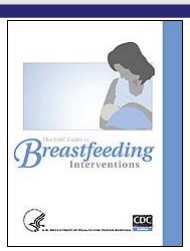
Employers who support breastfeeding:

- Contribute to the lifelong health and wellness of infants and their mothers.
- Reduce the health-care burden of childhood illness, including reduction in costs and childhood deaths.
- Ensure a more productive workforce by keeping babies healthy and current employees loyal, satisfied, and able to more fully attend to their work.
- Contribute to a healthier, more competitive workforce of the future through long-term prevention of obesity and chronic disease.

Federal Initiatives

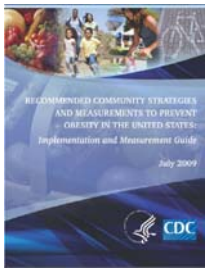
Healthier Worksite Initiative

CDC 2002



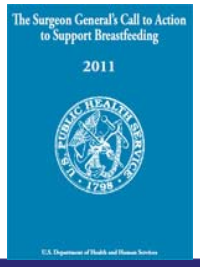
CDC 2005

HRSA/MCHB 2007



Recommended Community Strategies and Measurements to Prevent Obesity in the United States
2009

HHS 2010



OSG 2011

Duration and Exclusive Breastfeeding-Ongoing Support

NEW

Increase the percentage of employers who have worksite lactation programs. (Target is 38%; 2010 national baseline was 25%)

Surgeon General's Call to Action to Support Breastfeeding

Actions for Employment:

13. Work toward establishing paid maternity leave for all employed mothers.
14. Ensure that employers establish and maintain comprehensive, high-quality lactation support programs for their employees.
15. Expand the use of programs in the workplace that allow lactating mothers to have direct access to their babies.
16. Ensure that all child care providers accommodate the needs of breastfeeding mothers and infants.

Federal Policy

The Fair Labor Standards Act was amended in March 2010 to include the "Reasonable Break Time for Nursing Mothers" provision.

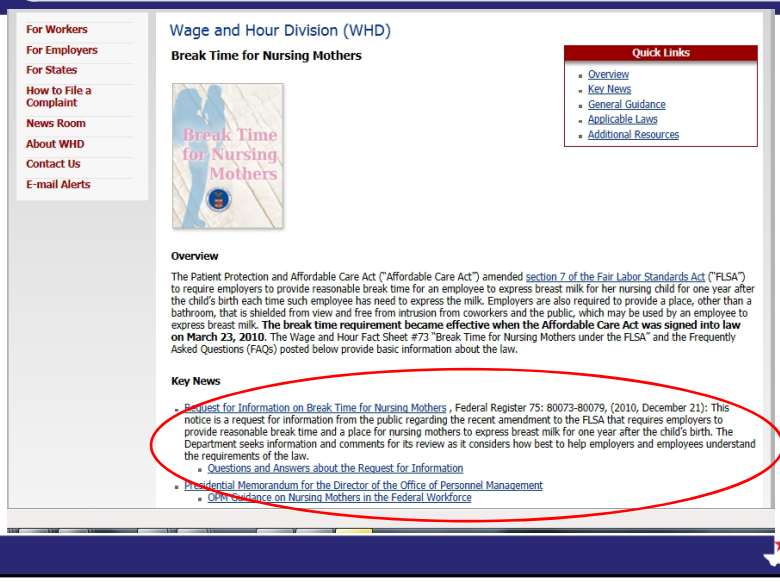
Wage and Hour Division (WHD)

Break Time for Nursing Mothers

Reasonable Break Time for Nursing Mothers Act

- Reasonable break time *each time a mother has a need* to express breast milk until child is one. Time used in addition to usual employer-allowed breaks does not need to be paid.
- Employer must provide a place that is not a bathroom that is "shielded from view and free from intrusion" to express breastmilk.
  - Flexible options for space acceptable as long as requirements met.

http://www.dol.gov/whd/nursingmothers/



New Guidance from the EEOC

http://www.eeoc.gov/laws/types/pregnancy_guidance.cfm

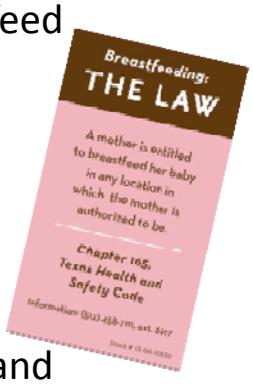
EEOC

b. Discrimination Based on Lactation and Breastfeeding

- Because lactation is a **pregnancy-related medical condition**, less favorable treatment of a lactating employee may raise an inference of unlawful discrimination.
- An employee **must have the same freedom to address such lactation-related needs that she and her co-workers would have to address other similarly limiting medical conditions**. For example, if an employer allows employees to change their schedules or use sick leave for routine doctor appointments and to address non-incapacitating medical conditions, then it must allow female employees to change their schedules or use sick leave for lactation-related needs under similar circumstances.
- **Finally…less favorable treatment affects only women and therefore is facially sex-based**…

Texas Health and Safety Code 165- Breastfeeding (est. 1995)

- Affirms a woman's right to breastfeed in any location in which she "is authorized to be"
- "Mother-Friendly" Business Designation
- DSHS to make recommendations and create a model pilot MFW



www.TexasMotherFriendly.org

- ***Comprehensive*** Employer toolkit
- Outreach partner toolkit
- Peer reviewed (Center TRT) "Practice-Tested" Program

http://www.centertrt.org/?p=intervention&id=1182

- Breastmilkcounts.com (info, templates)

SUPPORTING BREASTFEEDING, WORKING MOMS

- prenatal and intrapartum strategies
- steps in the early weeks to prepare for returning to work
- considerations and strategies for successful transitions back to work

TEXAS Department of State Health Services

Getting off to the Best Possible Start—Prenatal Preparation

- An informed mom is an empowered mom
- You've got a right to BREASTFEED
- How was it for your co-workers? How might it be for you?
- Talk to HR
  - ✓ Benefits related to breastfeeding
  - ✓ What's the deal with leave?
  - ✓ What are return to work and schedule options?
  - ✓ Other existing policies and accommodations?

Getting off to the Best Possible Start—Prenatal Preparation

- Talk to employer and discuss plan to pump
  - ✓ Know your audience and start where they are
  - ✓ Where?
  - ✓ Schedule options and considerations
  - ✓ Milk storage

Getting off to the Best Possible Start—Hospital Stay

Hospital Policies—Mother-Friendly is <u>Step 0</u> of the Ten Steps

- ✓ Ten Steps for breastfeeding success
- ✓ Be informed to empower
- ✓ Probe, explore, educate and provide anticipatory guidance re. requests for supplementation, bottles, pumping, plans for leave, plans for return
- ✓ TEACH HAND EXPRESSION!!!

Preparing for Return to Work

- Breastfeed often to build up a good milk supply.
- **After milk supply is well established (if possible):**
  - Begin pumping—chose regular time and stick to it
  - Have someone else give a bottle before return to work (ideally around 6 weeks, but adjust for mother's return to work schedule)
- Pay attention to your and your baby's rhythm
- Think through child care arrangements
- Be strategic about maternity leave and timing of return to work

Back to Work—
Tips for a Smooth Transition

- Go back to work in the middle of the week.
- Recruit help. Other things can wait. Be kind to yourself. Hold your baby.
- Get into a groove with pumping.
  - Scheduling, frequency
  - **Hands on!**
  - Keep cortisol at bay.
  - Volume ≠ Capacity
- How's it going? Assess, regroup, carry on:
  - ✓ Logistics?
    - Space, accessibility, time, regularity
  - ✓ Support?
  - ✓ Schedule?


Apply Now
Family friendly. Worker friendly. Business friendly.
The Basics
Why it Matters
Build Your Program
Community
Build Your Program
Getting Started
Step 1: Get People on Board
Step 2: Form a Team
Step 3: Assess Your Site
Step 4: Develop Your Policy
Step 5: Plan Your Worksite
Step 6: Implement Your Plan
Step 7: Evaluate Your Program
Communication Tools
Additional Resources
FAQs
Additional Resources
Here are additional resources that may be useful for your worksite lactation support program.
Resources
Top Myths About Worksite Lactation Download PDF 610.07 KB
Fact sheet debunks common myths about worksite lactation.
Employee Guide For Taking Leave Download PDF 368.37 KB
Fact sheet explains the basics that a mom should know before going on leave for childbirth.
Resources List Download PDF 604.26 KB
List of websites, tools, and information about combining working and breastfeeding, worksite lactation, and developing supportive policies and programs.
To view these files, you may need to install one or more of these free applications: Adobe Acrobat Reader, Microsoft Word Viewer, or Microsoft Powerpoint Viewer.
www.TexasMotherFriendly.org


www.Breastmilkcounts.com
BREASTMILK. EVERY OUNCE COUNTS.
Top chef.
Working Moms
Mother-Friendly Worksites
Before Maternity Leave
WIC

Questions/Discussion

julie.stagg@dshs.state.tx.us

Birth Defects Epidemiology and Surveillance Branch Work
Texas Department of State Health Services
FY 2015 (September 2014 – August 2015)

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Presentations and Posters

Canfield, MA. Gastroschisis in Texas: Interesting Patterns and Other Findings. Presented at the *First Gastroschisis Conference of the Avery's Angels Gastroschisis Foundation*, Houston, TX, July 18, 2015. (Invited Speaker)

Canfield MA, Hoyt AT, Romitti P, Botto LD, Anderka MT, Krikov S, Tarpey M, Feldkamp ML, and the National Birth Defects Prevention Study. Associations between Maternal Periconceptional Exposure to Environmental Tobacco Smoke and Major Non-Cardiac Birth Defects. Accepted as poster presentation at the *55th Annual Meeting of the Teratology Society*, Montreal, Quebec, June 27-July 1, 2015.

Dawson AL, Razzaghi H, Arth A, Canfield MA, Parker SE, Reefuis J, and the National Birth Defects Prevention Study. Time trends of selected maternal exposures in the National Birth Defects Prevention Study. Presented at the *48th Annual Meeting of the Society for Epidemiologic Research*, Denver, CO, June 17-19, 2015.

Dawson AL, Razzaghi H, Arth A, Canfield MA, Parker SE, Reefuis J, and the National Birth Defects Prevention Study. Time trends of selected maternal exposures in the National Birth Defects Prevention Study. Presented at the *28th Annual Meeting of the Society for Paediatric and Perinatal Epidemiology*, Denver, CO, June 16, 2015.

Lara D, Ethen MK, Canfield MA, Nembhard WN, Morris SA. Mortality in Patients with Turner Syndrome and Hypoplastic Left Heart Syndrome. Poster presented at the *Baylor Cardiovascular Research Institute Symposium*, Houston, TX, February, 2015.

Canfield MA, Hoyt AT, Shaw GM, Waller DK, Polen KND, Ramadhani T, Anderka MT, Scheuerle AE; and the National Birth Defects Prevention Study. Sociodemographic and Hispanic Acculturation Factors and Isolated Anotia/Microtia. Presented at the *41st Annual Meeting of the International Clearinghouse for Birth Defects Surveillance and Research*, Helsinki, Finland, September, 2014.

Adrienne Hoyt presented findings from the anotia/microtia project at the 54th Annual Teratology Society Meeting in June of 2015.

Mark Canfield presented findings on passive smoke exposure and selected birth defects, using data from the National Birth Defects Prevention Study at the Annual Texas Center Analyst Meeting in October of 2014. Adrienne Hoyt organized the meeting.

Peter Langlois gave a presentation titled, "Residential Radon and Birth Defects" at the Annual Texas Center Analyst Meeting in October of 2014.

"Birth Defects Surveillance and Epidemiology" in the Reproductive and Perinatal Epidemiology graduate course at Texas A&M School of Public Health, Nov 12 2014.

Peter Langlois gave a presentation titled, "Environmental Projects Using TBDR Data" for the BDESB Technical training, Austin, Dec 2 2014.

Peter Langlois gave a presentation titled, "Monitoring Birth Defects Over Time" for the BDESB Technical training, Austin, Dec 3 2014.

Peter Langlois gave a presentation titled, "Birth Defects Surveillance and Epidemiology" for the DSHS Publications Pipeline meeting, Austin, Dec 3 2014.

Peter Langlois gave a presentation titled, "Residential Radon and Birth Defects" at the Texas Public Health Association Meeting in Austin, February 2015.

Marengo, L. Epi Talk: How are the Birth Defects Registry data used? Texas Birth Defects Technical Training, December 2014.

Doshi U, Hashmi SS, Marengo L, Kaul S, Moulik M. Incidence of and Risk Factors for Delayed Diagnosis of Critical Congenital Heart Defects: A Population Based Study. American Academy of Pediatrics National Conference & Exhibition, October 2014.