



Tennessee Breastfeeding Hotline FY15 Annual Report

Submitted to:

State of Tennessee, Department of Health

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Executive Summary

The Tennessee Breastfeeding Hotline (TBH) is a telephonic breastfeeding support program that is free to nursing mothers, their families and partners, expectant parents, and to health care providers. Participants who call the Tennessee Breastfeeding Hotline speak with a certified lactation counselor who collects the mother's and baby's information using self-reporting techniques. This information is gathered for the purpose of making assessments, attending to the client's individual needs, referring the client to available resources and ensuring that the counselor is able to follow-up with the client.

Lactation counselors offer strategies to empower clients to breastfeed, identify barriers to successful breastfeeding, and provide techniques to cope with and overcome barriers to breastfeeding. Participants receive individualized counseling for common breastfeeding issues. If the caller's issues are beyond the scope of the counselor's expertise, or require treatment, the mother is directed to a health care provider or an outside agency better able to offer the necessary support. Some participants receive a 24 hour follow-up call, if the caller's situation requires additional support and encouragement.

The measurement period for this annual report is July 2014 through June 2015. Lactation consultants collected quantitative data through the use of a conditional questioning workflow. This workflow data analyzed breastfeeding trends, call volume and repetition, patterns in the age, race, and ethnicity of callers, self-reported outcomes at follow-up, client satisfaction with services as reported during a 4, 8 and 12-week follow-up call. Over the course of the measurement period, this data is collected to aid in the construction of a continuous quality improvement plan, vital in ensuring the sustainability and productiveness of the TBH.

Participants receive follow-up calls at 4, 8, and 12 weeks for two reasons. The first is to encourage the women to continue breastfeeding. For the state of Tennessee, the percentage of women that were breastfeeding, alone or supplemented, after four weeks was 65.4% during 2007, or about 2 out of 3 women ($N = 341$).¹ Of the women that used the hotline during the fiscal year, 87.4% intended to continue breastfeeding (Table 14A, pg. 21), and after four weeks 85.3% of the moms were still breastfeeding (Table 14B, pg. 21).

The second reason for the three follow-up calls is to acquire necessary information used to determine the effectiveness and quality of the program from the viewpoint of the user. During the 2nd year, 100% of the callers at the 4-week follow-up and 100% at the 8-week follow-up

¹ National Immunization Survey, Centers for Disease Control and Prevention, Department of Health and Human Services, 2007

rated their satisfaction level as satisfied or very satisfied (Table 15A, pg. 24). Using the same scale, all (99.8%) of those asked, during a follow-up phone call, how likely they were to refer others to the hotline reported that they were very likely to do so (Table 15B, pg.24).

A follow-up is defined as a call that occurs at 24 hours after the initial call, or a call that occurs at 4, 8, and 12 weeks.

Clients are welcome to call the hotline any time they need support, and regardless of language barriers. An auto attendant greets callers in both English and Spanish. Interpretive services are available for more than 200 languages. Special operators are available to assist hearing-impaired callers.

Introduction

Breastfeeding is widely accepted as an effective strategy to promote positive health outcomes for both mothers and their babies. Despite growing data on these benefits, 25.1% of babies born in Tennessee in 2011 were never breastfed, according to the Centers for Disease Control and Prevention's 2014 Breastfeeding Report Card². By the time their baby reached 6 months of age, the number of mothers continuing to breastfeed (40.7%), had been cut nearly in half from the original 74.9% in Tennessee. Based on these numbers, Tennessee is still well below Healthy People 2020's goal for breastfeeding at 6 months of age (60.6%), and the somewhat below the objective for mothers ever having breastfed (81.9%).

This report was created to examine how the TBH is currently fostering the healthy development of children by promoting and supporting the practice of breastfeeding in Tennessee. By addressing common barriers to breastfeeding in the state, the hotline reinforces the national goal of higher breastfeeding rates, over longer periods of time. Prevalent barriers to breastfeeding include³:

- Lack of knowledge
- Lactation problems
- Poor family and social support
- Social norms
- Embarrassment
- Employment and child care
- Health services

The TBH is able to address these obstacles in a multifaceted approach designed around the individual needs of each client. The primary medium for doing so is through certified lactation

² Centers for Disease Control and Prevention, 2014 Breastfeeding Report Card.

³ U.S. Department of Health and Human Services. Executive Summary: The Surgeon General's Call to Action to Support Breastfeeding. Washington, DC: U.S. Department of Health and Human Services, Office of the Surgeon General; January 20, 2011.

consultants and counselors. These counselors are able to answer questions and provide information about:

- Inadequate milk production
- Nursing rejection by baby
- Breast or nipple pain
- Medications and breastfeeding
- Working and breastfeeding
- Breast pumps and rentals
- Breastfeeding in public
- Tennessee laws that relate to breastfeeding
- Weaning
- State-approved online breastfeeding support groups
- State-approved online breastfeeding resource material

The topics of information covered by the counselors acknowledge the barriers to breastfeeding experienced by women around the country.

Performance Measurement

The target population of the TBH includes nursing mothers, their families and partners, expectant parents, and health care providers. 56.8% of the caller base was white, 13% was black, 7.2% were either Asian, American Indian or Alaskan Native, native Hawaiian/Pacific Islander, mixed, or other and 24% of the callers were undisclosed or refused (Table 9B, pg. 15). According to the United States Census Bureau, 79.3% of Tennessee residents are white, 17% are black, and 3.7% are Asian, American Indian or Alaskan Native, or mixed ($N = 6,454,914$).⁴ Hispanic women comprised 4% of the caller base, non-Hispanic women accounted for 86.4%, and 9.5% of women were not recorded as belonging to either group (Table 9C, pg. 15). The age groups that were reported as calling the most frequently were between the ages of 26 and 30 (Table 9A, pg. 14).

Conferences and Presentations

The TBH had multiple opportunities throughout the year to present on the hotline at multiple events across the state. The conferences attended by hotline staff include:

- 40th WIC Celebration Conference, Paris Landing State Park TN
- Tennessee Public Health Association Conference, Cool Springs TN
- Tennessee Initiative for Perinatal Quality Care Annual Conference, Franklin TN
- Tennessee Hospital Association Regional Conference, Memphis TN

⁴ U.S. Census Bureau: State and County QuickFacts. Data derived from Population Estimates, American Community Survey, Census of Population and Housing, State and County Housing Unit Estimates, County Business Patterns, Nonemployer Statistics, Economic Census, Survey of Business Owners, Building Permits, Last Revised: Friday, 16-May-2014 06:47:27 EDT

In addition, hotline staff have participated in conference calls with Renee Palting (contract manager of the Arizona Breastfeeding Hotline), as well as bimonthly conference calls with the U.S. Breastfeeding Committee, the Tennessee Breastfeeding Coalition, and monthly calls with WIC breastfeeding counselors.

Community Advisory Board Meetings

To continue to keep the community informed about the hotline, the TBH held three Community Advisory Board (CAB) meetings in its second year. These meetings serve to update the board about the hotline's successes and challenges, and to open the floor for suggestions. An important role of the CAB this year was its input on the texting pilot. The texting pilot's concept was presented to the CAB and the group's consensus was that this was a good idea that should be implemented, with the caveat that the texts should only go out if the consultant's had already attempted to follow up with the callers via telephone. The TBH took the advice and has used it to shape its texting pilot (see Texting Pilot section for more information)

Medical Consultant and Call Report Audit

In response to the Tennessee Department of Health's request for physician involvement with call report audit and feedback, Dr. Allison Stiles is now contracted to be the Medical Consultant for the TBH. Dr. Stiles is a licensed Internal Medicine and Pediatric Specialist and is a great breastfeeding advocate and Chair of the Shelby County Breastfeeding Coalition. Dr. Stiles's contract was signed in January 2015.

As part of the hotline's continuous quality improvement, Dr. Alison Stiles reviews 10 randomly selected charts every month. She then shares her feedback with the staff and offers ways to improve. Dr. Stiles also serves as a member of the Community Advisory Board.

Texting Pilot

As the TBH is one of, if not the first breastfeeding hotline to conduct follow up calls, TBH has encountered some issues, including a low response rate for follow up calls. Introducing a texting follow up option was proposed early in 2015 as a way to encourage follow up contact. TBH believes a texting option will allow more callers to complete a follow up, as an online survey may be completed at the caller's leisure, will allow for more honest feedback on the hotline's services, and may be a preferable option for mothers who are unable or unwilling to be reached during normal working hours when follow up calls are attempted.

Starting June 24th, the hotline began the use of follow up texting. Per discussions with the CAB and the state, the current process works as follows: the lactation consultants' first attempt to contact the callers via telephone. If there is no answer, the consultant leaves a message but also texts the caller a personalized message (in which the clients are encouraged to call the

hotline at any time if they have additional questions) and a link to a short follow up survey. While less in-depth than the telephonic follow up, the text survey allows the caller to complete it in their own time. Results from this pilot will be presented in future reports.

Notable Trends

Call volume for the hotline increased greatly this year, increasing by a total of 22 percent from the 4th quarter to the end of the 7th quarter, with expectations that call volume will continue to increase as the marketing campaign continues. Hospitals are the most common referral source, but the use of web search engines such as Google has also directed callers to the hotline.

The caller base of the hotline continues to diversify. In its second year, the hotline continued to utilize its interpretive services for about 1-2% of calls, predominantly in Spanish, but also in Amheric, Chinese, Arabic, and even American Sign Language. The hotline has also received a call from a transgender mother.

Obstacles faced this year included staffing issues, including finding qualified lactation consultants and making sure the hotline has continual coverage. In response, the TBH hired additional consultants in April and June 2015 and are in search of additional PRNs to cover shifts on weekends and holidays.

Prank calls have been another issue. Due to the stigma and novelty of breastfeeding for some individuals, the TBH has received multiple prank calls, which wastes the consultant's time. Additionally, sometimes the callers will say extremely disturbing things to the consultants, which can be very upsetting. To address this, the TBH is able to block repeat callers, so that they will not take up the consultant's time. When prank calls occur, the lactation consultant informs the prank caller that the call is being recorded and that their telephone number will be blocked. Lastly, the TBH has found a challenge with follow up calls. The hotline callers can be difficult to reach for follow up, and often do not respond to the voicemails left by consultants. To address this, TBH has worked with iCarol to implement the texting pilot project for follow-ups (see Texting Pilot, above). The TBH feels this could help with follow-up attrition, as the majority of hotline callers are in their 20s and 30s and may prefer texting to calling for follow-up. The texting option also allows consultants to write a personalized text message so that the texts are not viewed as "spam".

Overall, however, the hotline seems to be highly well-received by callers. About 28% of callers to the hotline are repeat callers, suggesting that the mothers find the information helpful and continue to reach out when they have additional questions. Feedback from follow-up calls has been overwhelmingly positive. Some individuals have even reached out to the state specifically to express their pleasure that such a service is being offered. The TBH's success has also led other states, such as Arkansas and Georgia, to reach out to us about creating their own hotline.

Tables and Figures

(1) Onebox & iCarol Data

Table 1
2015 Onebox and iCarol Data

2nd Year – Summary Table	
Number of Calls	4,797
Average Call Length	16 minutes
Average Call Length of First Time Callers	16 minutes
Total Number of Follow-Up Call Attempts	9,105
Average Time Between Message and Call Back	17 minutes
Number of Voicemail Messages	1,850
Dropped/Abandoned Calls	74
Calls Received During No Live Coverage	0
Calls Where Call Back is Less Than 30 Minutes	1,479

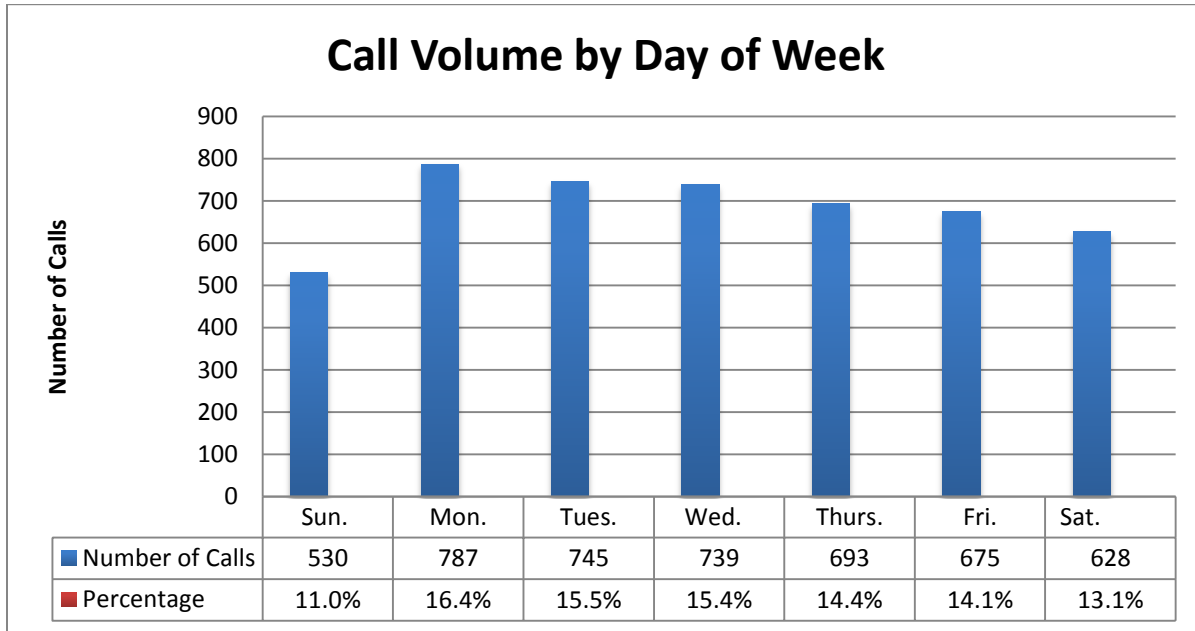
(2) Call volume & time

Table 2A
2nd Year Number of Calls by Time of Day

Time of Call	4th Quarter	5th Quarter	6th Quarter	7th Quarter	2nd Year Total	2nd Year Percentage
12 AM - 7 AM	89	124	112	125	450	9.3%
8 AM - 12 PM	362	378	360	382	1482	30.8%
1 PM - 6 PM	423	410	468	548	1849	38.5%
7 PM - 11 PM	241	226	236	313	1016	21.1%
TOTALS:	1115	1138	1176	1368	4797	100%

Most calls were received between the hours of 1 PM and 6 PM.

Figure 1
2nd Year Call Volume by Day of Week



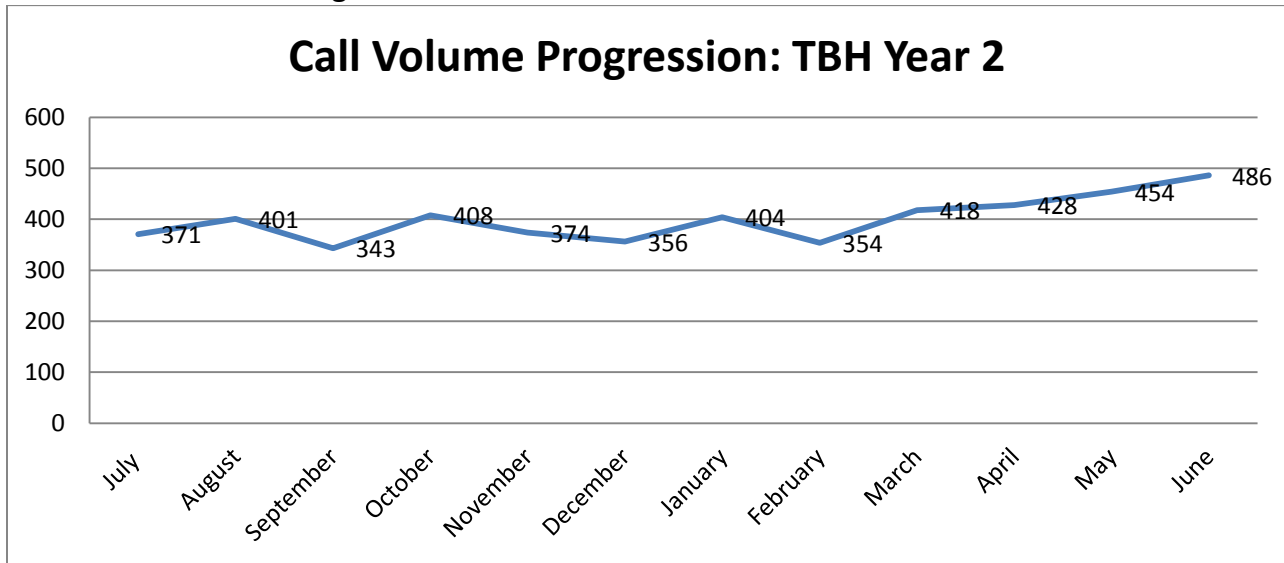
Calls were most likely to have been received on Mondays and the least likely to have been received on Sundays during the TBH’s second year of operation.

Table 2B
2nd Year Call Volume by Month

Month	Number of Calls	Percentage
July	371	7.7%
August	401	8.4%
September	343	7.2%
October	408	8.5%
November	374	7.8%
December	356	7.4%
January	404	8.4%
February	354	7.4%
March	418	8.7%
April	428	8.9%
May	454	9.5%
June	486	10.1%
TOTALS:	4797	100%

From July 2014 to June 2015, the TBH received a total of 4797 calls. June 2015 had the highest call volume for any month with 486.

Figure 2
2nd Year Call Volume Progression



Call volume has increased steadily from quarter to quarter for the TBH.

(3) Call Length

Table 3
2nd Year Call Length by Caller Type

Length of Call	4th Quarter	5th Quarter	6th Quarter	7th Quarter	2nd Year Totals	2nd Year Percentage
0-9 minutes	342	355	343	395	1435	29.9%
10-19 minutes	430	448	515	608	2001	41.7%
20-29 minutes	228	213	224	264	929	19.4%
30-39 minutes	82	85	65	67	299	6.2%
40-49 minutes	15	23	19	25	82	1.7%
50-59 minutes	10	9	4	3	26	0.5%
1 hour or more	8	5	6	6	25	0.5%
TOTALS:	1115	1138	1176	1368	4797	100%

Most (41.7%) of the calls to the TBH in the 2nd year lasted from 10-19 minutes.

(4) Referrals**Table 4A**
2nd Year Referral Source

Referral Source	4th Quarter	5th Quarter	6th Quarter	7th Quarter	2nd Year Total	2nd Year Percentage
Hospital	168	166	749	827	1910	39.8%
Website	18	43	220	183	464	9.7%
Other	11	23	88	128	250	5.2%
Provider's office	12	15	50	108	185	3.9%
WIC Clinic	15	21	44	68	148	3.1%
Family or Friend	6	8	26	37	77	1.6%
Billboard	1	0	0	6	7	0.1%
Brochure	0	1	7	6	14	0.3%
TV	1	0	0	5	6	0.1%
Unknown ⁵	884	854	N/A	N/A	1738	36.2%
Total	--	--	--	--	4799⁶	100%

39.8% of callers were referred to TBH by a hospital. Website was the second most popular source of information for the hotline. Additionally, when 'breastfeeding hotline' is searched online through Google.com, the Tennessee Breastfeeding Hotline is the number one result. When deciding how search results are ranked, Google considers the quantity and quality of links which point back to said sites. TBH's high Google rank indicates that TBH is continuing to increase in its visibility and success.

Table 4B
2nd Year Callers Referred to Provider by the Hotline

Referral Status	4th Quarter	5th Quarter	6th Quarter	7th Quarter	2nd Year Total	7th Quarter Percentage
No referral given	67	58	34	46	205	4.3%
Referred to own provider	107	236	125	137	605	12.6%
Referred to other provider in the vicinity	43	28	2	2	75	1.6%
Blank	898	816	1015	1183	3912	81.6%
TOTALS:	1115	1138	1176	1368	4797	100%

When callers required a referral, they were most often referred to their own providers.

⁵ This question was made mandatory to complete in December 2014, thus removing the 'Unknowns' for the 6th and 7th quarters.

⁶ This question was a 'mark all that apply' question until December 2014, thus giving a total that's greater than the actual call volume.

Table 4C
2nd Year Callers Referred to Immediate Medical Attention

Medical Reference Given	4th Quarter	5th Quarter	6th Quarter	7th Quarter	2nd Year Total	2nd Year Percentage
No	909	965	1044	1221	4139	86.3%
Yes	70	80	66	64	280	5.8%
N/A	136	93	66	83	378	7.9%
TOTALS:	1115	1138	1176	1368	4797	100%

Of the total 4797 callers who contacted the TBH in its second year, 280 (5.8%) were advised to seek immediate medical attention. Reasons that the mother would have been advised to do so include: the mother had symptoms of mastitis or a yeast infection, and any issue above and beyond the scope of practice.

Table 4D
2nd Year Initial Outcomes, Callers & Lactation Consultants

Referred to a LC	4th Quarter	5th Quarter	6th Quarter	7th Quarter	2nd Year Total	2nd Year Percentage
No	787	965	1000	1132	3884	81.0%
Yes	186	80	112	143	521	10.9%
N/A	142	93	64	93	392	8.2%
TOTALS:	1115	1138	1176	1368	4797	100%

During the TBH's second year, it advised 10.9% of its callers to seek out a local lactation consultant.

(5) First time or repeat caller

Table 5
2nd Year Caller by Call Type

Caller Type	4th Quarter	5th Quarter	6th Quarter	7th Quarter	2nd Year Totals	2nd Year Percentage
First time	699	803	824	972	2474	68.3%
Repeat Caller	304	323	352	396	1023	28.3%
Unknown	112	12	--	--	124	3.4%
TOTALS:	1115	1138	1176	1368	4797	100%

The majority (68.3%) of calls received were from first time callers.

(6) Interpretive services

Table 6
2nd Year Interpretive Services

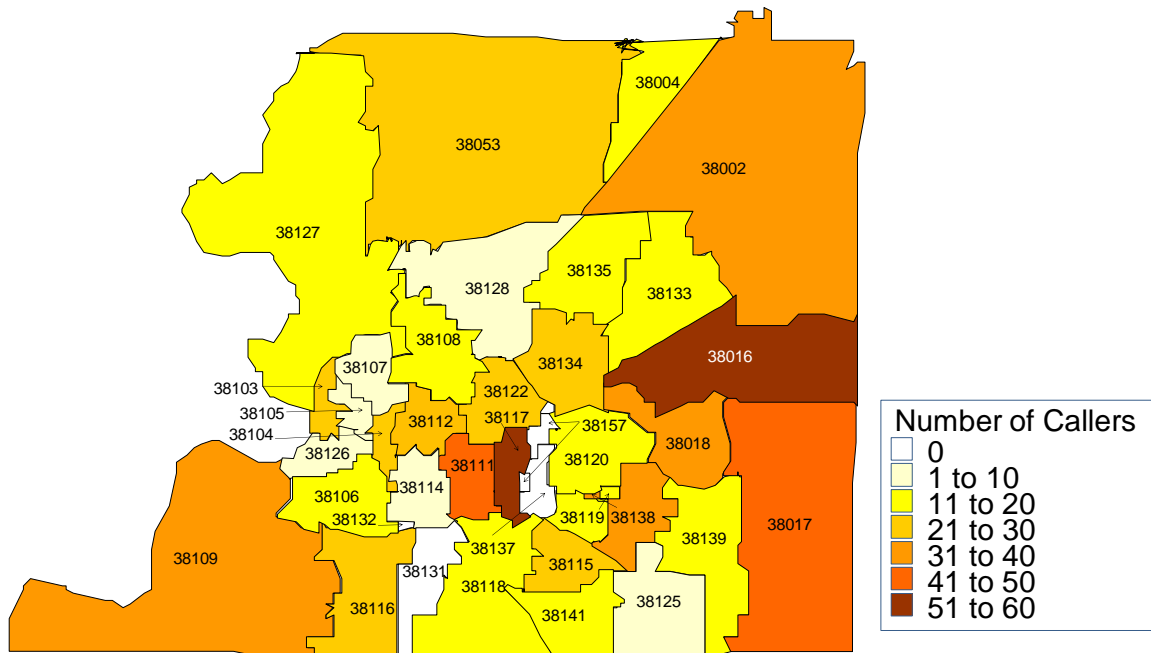
Interpretive Services	4th Quarter	5th Quarter	6th Quarter	7th Quarter	2nd Year Total	2nd Year Percentage
Not Used	1014	1127	1158	1349	4648	96.8%
Used	7	11	18	19	55	1.1%
Unknown	94	--	--	--	94	1.9%
TOTALS:	1115	1138	1176	1368	4797	100%

Overall, in the second year, 1% of calls utilized interpretive services.

(7) Caller location

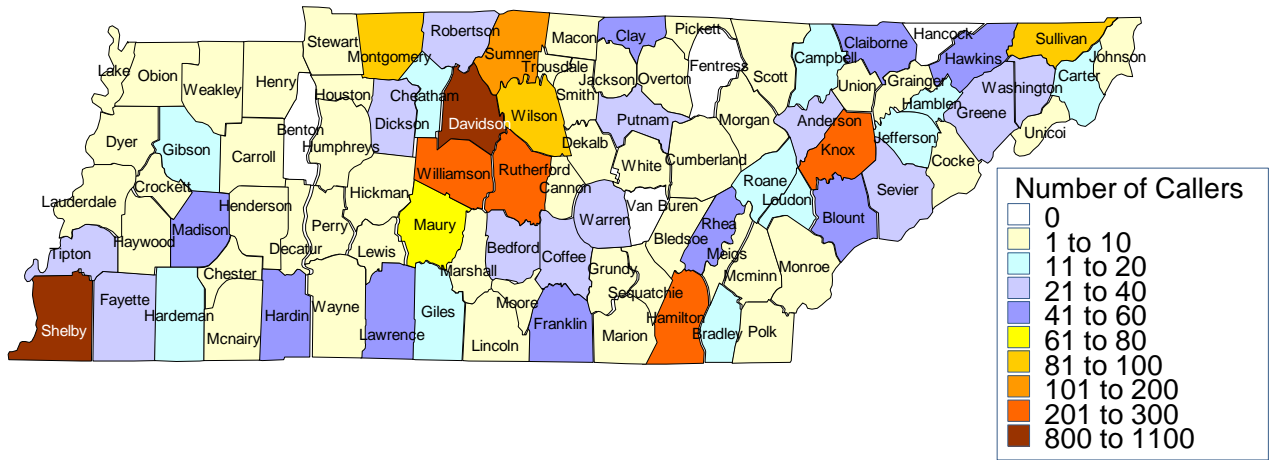
2nd Year 7(A) - Hotline calls by Shelby County ZIP Code

**Calls to Tennessee Breastfeeding Hotline
by Shelby County Zip Code
July 2014 through June 2015**



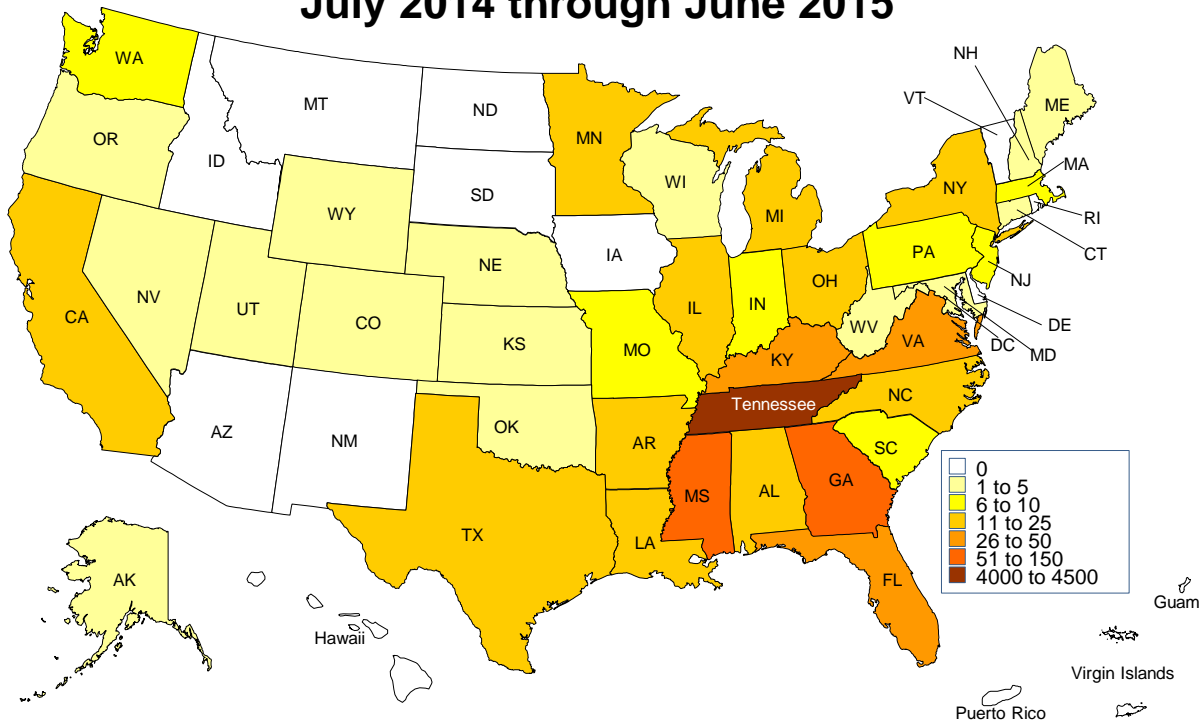
2nd Year 7(B) - Calls to the Hotline by County of Caller

Calls to the Tennessee Breastfeeding Hotline By County of Caller July 2014 through June 2015



2nd Year 7(C) – Calls to the Hotline by State

Calls to the Tennessee Breastfeeding Hotline by State July 2014 through June 2015



(8) Caller's relationship to mother**Table 8**
2nd Year Caller's Relationship to Mother

Caller's Relationship to Mother	4th Quarter	5th Quarter	6th Quarter	7th Quarter	2nd Year Totals	2nd Year Percentage
Self	370	1065	1101	1257	3793	79.1%
Spouse or partner	8	27	40	55	130	2.7%
Other	11	26	14	35	86	1.8%
Family or household member	5	11	17	21	54	1.1%
Unknown	721	9	4	--	734	15.3%
TOTALS:	1115	1138	1176	1368	4797	100%

The majority (79.1%) of callers to the TBH are the mothers.

(9) Mother's age and race/ethnicity**Table 9A**
2nd Year Mother's Age

Age of Mother	4th Quarter	5th Quarter	6th Quarter	7th Quarter	2nd Year Totals	2nd Year Percentage
<15	1	0	0	2	3	0.1%
15 - 17	7	3	8	4	22	0.5%
18 - 20	22	37	41	55	155	3.2%
21 - 25	153	215	216	294	878	18.3%
26 - 30	283	343	421	456	1503	31.3%
31 - 35	179	203	228	282	892	18.6%
36 - 40	50	44	70	86	250	5.2%
41 - 45	7	4	7	6	24	0.5%
46+	1	0	2	2	5	0.1%
Other	269	289	183	181	922	19.2%
Undisclosed	143	0		0	143	3.0%
TOTALS:	1115	1138	1176	1368	4797	100%

Mothers who used the hotline in the second year were most likely to be between the ages of 26 and 30 (31.3%).

Table 9B
2nd Year Mother's Race

Race of Mother	4th Quarter	5th Quarter	6th Quarter	7th Quarter	2nd Year Totals	2nd Year Percentage
White	499	537	748	941	2725	56.8%
Black	120	132	157	217	626	13.0%
Other	21	20	56	90	187	3.9%
Refused/None	0	4	25	74	103	2.1%
Asian	6	11	12	26	55	1.1%
Mixed	5	6	4	12	27	0.6%
American Indian/Alaskan Native	5	7	4	8	24	0.5%
Native Hawaiian/Pacific Islander	0	0	1	0	1	0.0%
Undisclosed	459	421	169		1049	21.9%
TOTALS:	1115	1138	1176	1368	4797	100%

56.8% of callers in the second year were white.

Table 9C
2nd Year Mother's Ethnicity

Ethnicity	4th Quarter	5th Quarter	6th Quarter	7th Quarter	2nd Year Totals	2nd Year Percentage
Hispanic	46	39	52	55	192	4.0%
Not Hispanic	981	990	1020	1156	4147	86.4%
N/A	88	109	104	157	458	9.5%
TOTALS:	1115	1138	1176	1368	4797	100%

4% of callers identified as Hispanic/Latina, the majority identified as non-Hispanic/Latina. The 'N/A' option accounts for callers who declined to answer, for whom the question does not apply (e.g. medical providers seeking resources), and for repeat callers.

(10) Mother's Pregnancy History**Table 10A**
2nd Year Number of Pregnancies

Number of Pregnancies	4th Quarter	5th Quarter	6th Quarter	7th Quarter	2nd Year Totals	2nd Year Percentage
1	362	380	421	451	1614	33.6%
2	147	128	161	140	576	12.0%
3	74	60	49	68	251	5.2%
4	18	17	28	20	83	1.7%
5	9	12	13	10	44	0.9%
6	4	1	5	2	12	0.3%
7	1	1	3	6	11	0.2%
8	0	0	3	1	4	0.1%
9	0	0	0	0	0	0.0%
10+	3	3	0	0	6	0.1%
Undisclosed	497	536	493	670	2196	45.8%
TOTALS	1115	1138	1176	1368	4797	100%

Most of the women choosing to disclose information on their pregnancy history reported few pregnancies (1-2 pregnancies).

Table 10B
2nd Year Number of Live Births

Number of Live Births	4th Quarter	5th Quarter	6th Quarter	7th Quarter	2nd Year Totals	2nd Year Percentage
1	419	380	421	504	1724	35.9%
2	147	128	161	149	585	12.2%
3	65	60	49	53	227	4.7%
4	10	17	28	12	67	1.4%
5	8	12	13	4	37	0.8%
6	0	1	5	1	7	0.1%
7	0	1	3	2	6	0.1%
8	0	0	3	1	4	0.1%
9	0	0	0	0	0	0.0%
10+	3	3	0	0	6	0.1%
Undisclosed	463	536	493	642	2134	44.5%
TOTALS:	1115	1138	1176	1368	4797	100%

Of the women that disclosed the number of live births they have had, the majority had only had one or two.

Table 10C
2nd Year Weeks of Gestation

Weeks of Gestation	4th Quarter	5th Quarter	6th Quarter	7th Quarter	2nd Year Totals	2nd Year Percentage
< 37 (pre-term)	65	58	65	109	297	6.2%
37 - 40 (term)	629	684	810	916	3039	63.4%
> 40 (post-term)	111	154	128	140	533	11.1%
Other	310	242	173	203	928	19.3%
TOTALS:	1115	1138	1176	1368	4797	100%

63.4% of the women who called the hotline reported carrying their child to term. According to the Centers for Disease Control and Prevention's birth statistics in 2013, 12.6% of babies born in Tennessee were delivered preterm.⁷ In comparison, only 6.2% of women who used the hotline in its 2nd year reported that they delivered their baby before 37 weeks ($N = 4797$). The 'Other' category is meant to be used for callers who have not given birth, e.g. pregnant moms or healthcare providers seeking resources, or for repeat callers.

⁷ Centers for Disease Control and Prevention/National Center for Health Statistics, *Stats for the State of Tennessee*, Page last reviewed: April 15th, 2015. Retrieved from http://www.cdc.gov/nchs/pressroom/states/TN_2014.pdf

(11) Baby's Birth Information**Table 11A**
2nd Year Age of Baby

Age of Baby	4th Quarter	5th Quarter	6th Quarter	7th Quarter	2nd Year Totals	2nd Year Percentage
1 - 6 days	161	234	255	316	966	20.1%
1 week	112	96	90	90	388	8.1%
2 weeks	73	80	71	108	332	6.9%
3 weeks	64	66	65	82	277	5.8%
1 month	135	109	109	126	479	10.0%
2 months	89	95	88	89	361	7.5%
3 months	57	53	56	63	229	4.8%
4 months	36	54	56	50	196	4.1%
5 months	20	21	26	25	92	1.9%
6 months	18	25	38	22	103	2.1%
7 months	18	19	31	8	76	1.6%
8 months	10	14	23	25	72	1.5%
9 months	17	8	14	26	65	1.4%
10 months	9	12	12	18	51	1.1%
11 months	4	6	8	8	26	0.5%
12 months	1	4	6	10	21	0.4%
13 - 18 months	12	12	16	21	61	1.3%
19 - 24 months	5	7	5	2	19	0.4%
Undisclosed	274	223	207	279	983	20.5%
	1115	1138	1176	1368	4797	100%

Most (20.1%) calls were made when the baby was between the ages of 1-6 days old, followed by 1 month (10%). The high amount of calls from mothers with babies that are less than 6 days old is likely because this time period is the “engorgement stage” when the mother’s milk is increasing in volume and may cause issues.

Table 11B
2nd Year Method & Term of Delivery

Method of Delivery	4th Quarter	5th Quarter	6th Quarter	7th Quarter	2nd Year Totals	2nd Year Percentage
Cesarean	164	133	152	202	651	13.6%
Not yet born	6	4	3	5	18	0.4%
Vaginal	336	402	414	474	1626	33.9%
Undisclosed	609	599	607	687	2502	52.2%
TOTALS:	1115	1138	1176	1368	4797	100%

Although more than half (52.2%) of mothers chose not to disclose this information, of those who did, the most common method of delivery was vaginal (33.9%).

(12) Reasons For Calling

Table 13A
2nd Year Top 10 Primary Reasons for Calling

Top 10 Reasons for Calling	4th Quarter	5th Quarter	6th Quarter	7th Quarter	2nd Year Totals	2nd Year Percentage
Not making enough milk	132	129	148	156	565	11.8%
Medications and breastfeeding	92	139	165	156	552	11.5%
Other	232	104	130	28	494	10.3%
Breast or nipple pain	102	116	105	110	433	9.0%
Breast engorgement	61	81	99	82	323	6.7%
Sore nipples	36	49	31	64	180	3.8%
Appropriate feeding by age/weight	N/A	69	54	56	179	3.7%
Baby feeding too much/too little	N/A	53	50	76	179	3.7%
Breast pumps and rentals	39	37	32	54	162	3.4%
Weaning	31	36	33	45	145	3.0%
TOTALS:	725	813	847	827	3212	67.0%

Above are the most popular primary reasons callers reach out to the hotline, with these 10 issues accounting for 67% of all calls received ($N = 4797$).

Table 13B
2nd Year Top 10 Additional Reasons for Calling

Top 10 Additional Reasons for Calling	4th Quarter	5th Quarter	6th Quarter	7th Quarter	2nd Year Totals
Breastfeeding technique	20	19	43	37	119
Not making enough milk	21	22	17	26	86
Sore nipples	30	17	11	9	67
Breast engorgement	23	10	12	17	62
Working and breastfeeding	14	17	18	9	58
Breast or nipple pain	10	8	11	12	41
Breast pumps and rentals	13	11	6	9	39
Medications and breastfeeding	9	7	9	12	37
Appropriate feeding by age/weight	3	8	14	11	36
Overactive letdown/too much milk	7	9	9	8	33
TOTALS:	150	128	150	150	578

In addition to the primary reason for calling, lactation counselors note additional questions that are brought up during the course of the call. Callers most often had additional questions about breastfeeding technique, following by not making enough milk.

(14) Outcomes at Follow-Up

At the end of each initial call to the TBH, the lactation consultants ask the callers if they intend to continue to breastfeed. Results from the 6th quarter indicated that 90% of the callers (1059 of 1176) intended to continue to breastfeed, see Table 14A. At the 4-week follow-up 86.7% (N = 216 of 249) are continuing to breastfeed, see Table 14B.

The lactation consultants also indicated whether they believed the caller appeared to be more confident and comfortable with breastfeeding by the end of the initial call. For the 6th quarter, 89.7% (1055 of 1176 of callers) appeared to be more comfortable with breastfeeding by the end of the initial call, see Table 14D. Results at four-weeks indicate that 91.6% (N = 208 of 227) of the mothers were more comfortable and confident in their breastfeeding ability, see Table 14E.

Table 14A
2nd Year Intention to Continue Breastfeeding

Intention to Continue Breastfeeding	4th Quarter	5th Quarter	6th Quarter	7th Quarter	2nd Year Totals	2nd Year Percentage
Yes	932	1003	1059	1202	4196	87.4%
No	29	22	25	42	118	2.4%
N/A	154	113	92	124	483	10%
TOTALS:	1115	1138	1176	1368	4797	100%

When asked at the end of the initial call whether the mother intended to continue breastfeeding, 87.4% of callers shared that they did intend to continue breastfeeding exclusively, or a majority of the time. Reasons the mothers were no longer breastfeeding included not making enough milk, mother was going back to work, and the mother feeling stress or lack of support.

Table 14B
2nd Year Breastfeeding Outcomes at 24 hours, 4, 8, & 12 Weeks

Callers Still Breastfeeding at each Follow-up	2nd Year Percentage					
	Calls Attempted	Not Reached	Reached	Answered Question	Still Breastfeeding	Percentage Still Breastfeeding
24 hour follow-up	-	-	--	448	428	95.5%
4 week follow-up	3010	2129	881	846	722	85.3%
8 week follow-up	2325	1762	563	541	466	86.1%
12 week follow-up	2166	1719	447	425	342	80.5%

Table 14C
2nd Year Breastfeeding: Exclusive or Supplemental 24 hours, 4, 8, & 12 Weeks

Callers Still Breastfeeding at Each Follow-up	2nd Year Totals			
	Supplemented	Exclusive	Missing Response	Number Still Breastfeeding
24 hour follow-up	100	304	24	428
4 week follow-up	196	409	117	722
8 week follow-up	104	303	59	466
12 week follow-up	98	225	19	342

Table 14D
2nd Year Initial Outcomes, Confident Breastfeeding

Comfort with Breastfeeding	4th Quarter	5th Quarter	6th Quarter	7th Quarter	2nd Year Totals	2nd Year Percentage
Yes	179	1000	1055	1192	3426	71.4%
No	11	19	12	27	69	1.4%
N/A	1	119	109	149	378	7.9%
(blank)	924	N/A	N/A	N/A	924	19.3%
TOTALS:	1115	1138	1176	1368	4797	100%

Many callers were reported by their respective lactation consultants to have increased their level of comfort and confidence with breastfeeding by the end of their interaction. This question was not made mandatory to complete until October 2014, and as a result was often left blank during the 4th quarter.

Table 14E
2nd Year Confidence and Comfort at 24 hours, 4, 8, & 12 Weeks

Increase in Confidence/Comfort Level with Breastfeeding at each Follow-up	2 nd Year			Percentage Improved
	Did Not Improve	Improved	Not Applicable	
24 hour follow-up	18	399	2	95.6%
4 week follow-up	58	692	17	92.2%
8 week follow-up	28	123	1	94.2%
12 week follow-up	16	96	3	89.8%

Table 14F
2nd Year Decrease in Nipple Pain at 24 hours, 4, 8, & 12 Weeks

Decrease in Nipple Pain at each Follow-up	2 nd Year			Percentage Improved
	Did Not Improve	Improved	Not Applicable	
24 hour follow-up	34	111	92	76.5%
4 week follow-up	25	144	228	85.2%
8 week follow-up	5	87	111	94.5%
12 week follow-up	6	54	115	90%

Table 14G
2nd Year Increase in Milk Supply at 24 hours, 4, 8, & 12 Weeks

Increase in Milk Supply at each Follow-up	2 nd Year			Percentage Improved
	Did Not Improve	Improved	Not Applicable	
24 hour follow-up	25	209	22	89.3%
4 week follow-up	88	427	31	82.9%
8 week follow-up	47	289	11	86%
12 week follow-up	54	208	21	65.8%

Table 14H
2nd Year Relief in Breast Engorgement at 24 hours, 4, 8, & 12 Weeks

Relief in Breast Engorgement at each Follow-up	2 nd Year			Percentage Improved
	Did Not Improve	Improved	Not Applicable	
24 hour follow-up	16	87	103	84.4%
4 week follow-up	10	122	222	92.4%
8 week follow-up	4	57	116	93.4%
12 week follow-up	4	42	95	91.3%

(15) Client Satisfaction with Services

Clients rated services at different intervals, ranging from 24 hours after services had been rendered, to 4 weeks, 8 weeks and 12 weeks. The rated areas were general satisfaction with hotline services, and likelihood to recommend TBH services to another person. Both inquiries were made at each (24 hour, 4 weeks, 8 weeks, and 12 weeks) time interval.

Table 15A
2nd Year Client Satisfaction Results

	2nd Year					
	Satisfied or Very Satisfied with Services at each Follow-up	Calls Attempted	Not Reached	Reached	Number Answered	Number Satisfied
24 hour follow-up	-	-	--	427	427	100%
4 week follow-up	3010	2129	881	801	801	100%
8 week follow-up	2325	1762	563	501	501	100%
12 week follow-up	2166	1719	447	395	395	100%

Of the callers that chose to rate their satisfaction with TBH services at the 4 and 8 week follow-up, 100% rated their satisfaction level as “satisfied” or “very satisfied.”

Table 15B
2nd Year Likelihood to Recommend Results

	2nd Year					
	Likely or Very Likely to Recommend Services to Someone Else at each Follow-up	Calls Attempted	Not Reached	Reached	Number Answered	Number Likely to Recommend
24 hour follow-up	-	-	--	422	421	99.8%
4 week follow-up	3010	2129	881	781	782	99.8%
8 week follow-up	2325	1762	563	483	483	100%
12 week follow-up	2166	1719	447	381	381	100%

At the 4-week follow-up 99.8% of the callers reported that they would be “likely” or “very likely” to recommend TBH services to someone else.

Our Team

Meri Armour – President, Le Bonheur Children’s Hospital
Meri provides oversight over the entire division.

August Marshall, M.A. -- Grant Specialist & Evaluator
August is responsible for updating iCarol survey questions as needed. She also provides general iCarol support to the TBH staff and report compilation.

Cathy Marcinko, M.A. -- Grant Development Coordinator
Cathy assists division departments in researching, developing and submitting funding proposals, and with other assignments, as needed. She has a Masters’ Degrees in Community Planning and in Teaching, and has a BA in Art History.

Christina M. Underhill, Ph.D. -- Program Evaluator for the LCHWB Division
Christina coordinated the creation of the TBH quarterly report format and assisted with the development of the TBH quality improvement plan. She advises on the collection of outcome measures and ensures proper data management.

Gary R. Cook, LCSW -- Director of LCHWB Grant Administration Department
Gary co-authored the TN Breastfeeding Hotline Proposal. He provides contract related and fiscal oversight of the project.

Nicole Gottier, M.A. -- Grant Reimbursement Coordinator
Nicole tracks monthly expenses for the program for correctness, as well as alignment with budget projections, and creates and submits monthly invoices to the State.

Sandra Madubonwu MSN, RN, CLC -- Director of Community Programs
Sandra was involved in the proposal process for the TN Breastfeeding Hotline and played an instrumental role in implementing the program. She provides administrative oversight to many programs within LCHWB, including the TBH.

Helen Scott, RN/IBCLC/RLC -- Project Coordinator of the Tennessee Breastfeeding Hotline
Helen coordinates the staff and ensures that the Hotline is working to meet identified purposes and goals.

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