

# State-Wide Support for Physician-Mothers Who are Breastfeeding

*Marina M.C. MacNamara, MPH, Kathleen Moren, RN, IBCLC, Lynn E. Taylor, MD, FACP,  
and Julie Scott Taylor, MD, MSc, IBCLC*

**DESPITE THE SIGNIFICANT HEALTH AND COST** benefits of breastfeeding at both the individual and societal levels, there is a substantial gap between breastfeeding recommendations and practices among mothers in the United States, even those mothers who are themselves medical students and physicians. Among the major barriers to breastfeeding confronted by physician- and future physician-mothers are short parental leaves, fast-paced and time-intensive jobs, and historically little workplace support for pumping breast milk, including both time and private, clean space. Here we describe ongoing statewide collaborative efforts to improve workplace support for physician-mothers in Rhode Island.

Improving and supporting the health behaviors of physicians may have the added benefit of a wider-spread impact on the health behaviors of patients via counseling, support, and role modeling.

## **BREASTFEEDING HAS HEALTH AND COST BENEFITS TO INFANTS, MOTHERS, BUSINESSES, AND SOCIETY**

Because of the numerous benefits associated with breastfeeding, the American

Academy of Family Physicians (AAFP), the American Congress of Obstetricians and Gynecologists (ACOG), and the American Academy of Pediatrics (AAP) all advise mothers to breastfeed for at least one year with the introduction of complementary foods at six months.<sup>1-3</sup> Because breastfeeding is the “gold standard” infant nutrition that provides optimal health for both mothers and infants, lactation experts have recently shifted to describing the risks of formula feeding rather than the benefits of breastfeeding. For mothers, not breastfeeding is associated with an increased risk of post-partum blood loss, post-partum depression, and ovarian and breast cancer when compared with women who do breastfeed.<sup>4</sup> For children, risks of formula feeding include an increased incidence and severity of a wide range of infectious diseases as well as chronic diseases such as diabetes mellitus and obesity.<sup>4</sup> Among businesses, promoting breastfeeding can lower employee absenteeism and turnover rates while increasing employee productivity and retention. Employer-implemented breastfeeding programs have been shown to decrease employee healthcare costs.<sup>5</sup>

When business benefits are combined with those related to direct medical care, it has been estimated that \$13 billion could be saved if 90% of US families breastfed exclusively for six months.<sup>6</sup> If all of the Healthy People 2010 goals regarding breastfeeding had been met, national cost savings would have been \$2.2 billion.<sup>6</sup>

## **THERE IS A GAP BETWEEN BREASTFEEDING RECOMMENDATIONS AND PRACTICES AMONG US PHYSICIAN-MOTHERS**

Although breastfeeding initiation rates for all US mothers almost reached the Healthy People 2010 goal of 75%, rates for continued breastfeeding at six and twelve months remained well below the national goal.<sup>7</sup> (Table 1) For working women in general, employment negatively affects breastfeeding duration,<sup>8,9</sup> as does shorter length of maternity leave,<sup>9,10</sup> full-time work status,<sup>10-12</sup> and the absence of a lactation support program at work.<sup>10,13-14</sup>

Typically, the rates of breastfeeding initiation among physicians are higher than the regional average<sup>15</sup> and national recommendations.<sup>16</sup> However, the du-

**Table 1. National (Healthy People 2010/2020)<sup>1</sup> and Rhode Island (Rhode Island’s Plan for Healthy Eating and Active Living 2006–2012)<sup>2</sup> breastfeeding baselines and goals.**

	<b>RI Baseline</b>	<b>National Baseline</b>	<b>National 2010</b>	<b>National 2020</b>
	<b>2004*</b>	<b>2006*</b>	<b>Target</b>	<b>Target</b>
Ever breastfed	63%	74%	75%	82%
Breastfeeding at 6 months	28%	44%	50%	61%
Breastfeeding at 12 months	12%	23%	25%	34%
Exclusive breastfeeding through 3 months	35%	34%	40%	46%
Exclusive breastfeeding through 6 months	12%	14%	17%	26%
Number of employers with worksite lactation support programs	0.0005%	25%	**	38%
Number of live births occurring in facilities that provide recommended care for lactating mothers and their babies	11%	3%	**	8%

\* These are the years used for ‘baseline’ data collection at the national and local levels, respectively.

\*\* No 2010 targets were set for these indicators.

1. Maternal, Infant, and Child Health Objectives. <http://www.healthypeople.gov/2010/Data/> and <http://healthypeople.gov/2020/topics/objectives/2020/objectiveslist.aspx?topicid=26>. Accessed February 19, 2011.

2. Rhode Island Department of Health. Rhode Island’s Plan for Healthy Eating and Active Living, 2006–2012. Providence, RI: Rhode Island Department of Health, 2006.

**Table 2. First-hand testimonials from breastfeeding physician-mothers in a wide variety of specialties and clinical settings and at different levels of training.**

“The most difficult part about pumping is getting a private, clean space. I have occasionally been allowed to use office spaces, but if so I have to waste 15 minutes trying to find someone to give me a key. More often, I have pumped in supply closets (sitting on boxes of medical supplies!), my back to the door, hoping that no one walks in; in bathrooms, using a towel to try to keep the pump supplies sanitary; or in my car, keeping my fingers crossed that no one walks by and sees me! It is discouraging and unsanitary on many levels.

“I dream of having an easy-to-access, clean, space with a locked door for future moms-in-medicine, to both obviate the cleanliness issues and to logistically facilitate our efforts to provide breast milk to our babies. Imagine, maybe I could even return pages at the same time! Indeed, pumping would be much less of a ‘big deal’ if we knew there were a nearby space that we could safely, cleanly, quickly, and predictably use.”

“When I first started at [the hospital], I was pumping for my infant son. Since this is a health care environment, I didn’t think finding a spot to pump would be very challenging. I couldn’t have been more wrong. After seeing my patients, I started asking the nurses if I could use a clinic room to pump. They said no, they need the room for patients. Then I thought that I would certainly be able to use a space at employee health. After all, this was a health care issue and they didn’t seem to use the rooms much except to read PPDs. Even though the exam rooms in the employee health office were not in use, they also turned me down.”

“There have been many times I have used bathrooms, conference rooms, car, and the worst part is not even that someone might see me in a very immodest and embarrassing situation, because as a mother I’ll do anything to give breast milk for my child, but that anxiety over someone walking in, or if there is no phone, that someone is paging me and I am letting that page go for a while, which decreases my let-down and thereby diminishes the milk I can collect for my child and the speed at which I can collect it. With a locked door, a private space, and a phone (ideally a computer), I am completely relaxed, and I notice my milk comes out faster and in greater quantities. And I can still answer my pages to provide timely care for my patients. It’s a win-win situation for my mental health, my baby’s nutrition, and my patients’ care!”

“I recently gave a lecture at [a hospital] and had to pump in a very strange place. I pumped in this cold, dark, auxiliary cafeteria without a lock or a sink or fridge adjacent to where I was lecturing to a bunch of male doctors.”

“I nursed for 10 months [as a surgeon-in-training]. The average turnover time for us [in each operating room] is about 15-20 minutes. [Residents/fellows] are expected to place the dressing at the end of the case and position the patient at the beginning of the case so the turn over time is all you have to see the next patient and fix the paper work, finish paper work on the previous patient, check labs, take care of the floor patients, and eat. We generally had 5-6 cases a day and our cases were 1-2.5 hours long so I had to pump between every other case.

“When I started trying to find a room, everyone was very nice and very well intentioned. I was offered an office to pump in by at least 2 people. Unfortunately I soon learned that spending 5 minutes finding the person who has the key to the office or waiting 5 minutes for someone to wrap up what they are doing to vacate the office when you only have 12 minutes to pump and 3 minutes total to set up and clean up and get back to the room, 5 minutes is actually a long time. Therefore I started pumping in a single stall bathroom that was next to the OR. I would stand at the sink and make phone calls while pumping. Cell phone reception within the bathroom was spotty but luckily as long as I stayed near the sink I could usually send and receive calls. I also could never get used to eating while in this public bathroom (for obvious reasons) so I often had to skip eating.”

ration of breastfeeding is shorter.<sup>15-17</sup> Particular to physician-mothers is an often intensive work schedule resulting in insufficient time to express milk, especially among medical students or doctors who do not have their own private offices.<sup>16</sup>

Male and female physicians with personal or spousal success with breastfeeding are more likely to discuss infant nutrition with their patients and generally feel more confident in counseling them about breastfeeding. The otherwise lack of confidence is associated with a paucity of formal medical education about breastfeeding during training.<sup>18-20</sup>

**PUMPING BREAST MILK REQUIRES A CLEAN, PRIVATE SPACE**

The fundamental physiological mechanism of breastfeeding is supply and demand. Therefore, for mothers who are separated from their infants for work or school, pumping breast milk regularly is essential. In order to maximize milk production, mothers often start pumping weeks before returning to work in order to begin storing and freezing breast milk. With the most efficient, electric double pump, the process of expressing four to eight ounces of milk takes 15-20 minutes. In addition to privacy, pumping breast milk requires: an electrical outlet, a sink in which to clean parts that touch the breast/breast milk, and a clean space in order to minimize the risk of contaminating the milk. Historically, it has been a significant challenge for medical students and physician-mothers working at hospitals in Rhode Island to find a clean, private location to pump breast milk at their work place. Many lactating mothers have had to resort to pumping in bathrooms, cars, or supply closets. (Table 2)

In order to maintain a steady supply of breast milk and to avoid complications such as mastitis, mothers who are separated from their infants must pump approximately every three to four hours and ideally for long enough to express all the milk from each breast.<sup>21-22</sup> Two key factors that affect breast milk expression are pumping interval and stress level. First, the more milk that is pumped, the more is produced. Conversely, when a woman stops pumping, milk production subsequently down-regulates. As for stress level, physiologically, relaxation facilitates

**Table 3. General barriers and possible solutions to increase breastfeeding among working mothers.**

	<b>Barriers</b>	<b>Solutions</b>
<b>Home</b>	<ul style="list-style-type: none"> <li>• Lack of partner support</li> <li>• Family/friends who do not breastfeed</li> </ul>	<ul style="list-style-type: none"> <li>• Increased education about the risks of formula feeding / benefits of breastfeeding</li> <li>• Increased number of role models</li> </ul>
<b>Workplace</b>	<ul style="list-style-type: none"> <li>• Insufficient break time to pump</li> <li>• Lack of room/facilities to pump</li> <li>• Lack of support from colleagues/supervisor</li> <li>• Inability to afford a breast pump</li> </ul>	<ul style="list-style-type: none"> <li>• Implementation of workplace lactation programs</li> <li>• Establishment of private, clean lactation rooms in convenient locations</li> <li>• State, insurance, or workplace subsidies for breast pumps as medical devices</li> </ul>
<b>Physician's Office</b>	<ul style="list-style-type: none"> <li>• Lack of education about how to breastfeed</li> <li>• Lack of information about how to pump</li> </ul>	<ul style="list-style-type: none"> <li>• Improved education during training</li> <li>• Education about the importance of workplace lactation programs starting in medical school</li> </ul>
<b>Policy</b>	<ul style="list-style-type: none"> <li>• Lack of state and/or federal mandate requiring compensated break time for all employees</li> <li>• Lack of state and/or federal mandate requiring appropriate space for all employees</li> </ul>	<ul style="list-style-type: none"> <li>• Local and national advocacy for support of lactation among working mothers</li> </ul>

milk production and let-down and stress inhibits it. For physician-mothers who may try to pump hurriedly in the midst of a busy day in a less than ideal location, stress can be a significant obstacle to adequate milk let-down, resulting in both physical discomfort as well as the additional stress of an inadequate food supply for their infants. (Table 2)

**PUMPING BREAST MILK IN THE WORKPLACE HAS LEGAL SUPPORT**

Although still lenient compared to other states,<sup>23</sup> Rhode Island began to protect a mother's right to pump breast milk at work in 2003 (R.I. Gen. Laws § 23-13.2-1).<sup>24</sup> Today, mothers are also protected at the federal level by the new Section 4207 of the **Patient Protection and Affordable Care Act (PPACA)**, which took effect on March 23, 2010 (P.L. 111-148). This Act states that employers are required to provide at the minimum "reasonable break time for an employee to express breast milk for her nursing child for one year after the child's birth each time such employee has need to express the milk." Employers are also required to provide "a place, other than a bathroom, that is shielded from view and free from intrusion from coworkers and the public, which may be used by an employee to express breast milk."<sup>25</sup>

**RHODE ISLAND HAS RESOURCES FOR BREASTFEEDING PHYSICIAN-MOTHERS**

In response to existing gaps between the health recommendations of physicians and their health behaviors, there are two local organizations that are advocating on behalf of physician-mothers throughout the state to minimize some of the most obvious workplace obstacles to successful breastfeeding as a way to optimize maternal-child health.

**The Rhode Island Breastfeeding Coalition (RIBC)**

Established in 1992, the RIBC is a coalition of community organizations that focuses on increasing breastfeeding knowledge and awareness in the community and among health care professionals. The RIBC additionally aims to support local businesses in the promotion of breastfeeding by systematically distributing the Department of Health and Human Services' Business Case for Breastfeeding Toolkit to Rhode Island employers. Through grant funding obtained by the Initiative for Healthy Weight, the RIBC also awards mini-grants to employers to start or enhance their lactation programs.

In conjunction with the employee policy with regard to breastfeeding that is being developed by the Department of

Human Resources at Brown University, medical students and faculty from the Warren Alpert Medical School of Brown University have received a grant from the RIBC to develop a lactation room in the new medical education building that opened in July 2011. In this new building, the lactation room for students, faculty, and staff is located within the third-floor 16-exam room Clinical Exam Suite. The medical school is also using this funding opportunity to provide basic information about maternal and child health care to all medical students.

**MomDocFamily (MDF)**

Established in 2003, MDF of Brown's Office of Women in Medicine and Science is a multi-specialty organization of 255 physicians and medical students who are mothers. MDF's mission is to "provide mentorship and support for women physicians in all stages of careers and training as they face the challenges and rewards of combining a medical career with motherhood".<sup>26</sup> Through a needs assessment of its members, MDF found that multiple groups of physicians working at several Brown-affiliated hospitals had unmet needs with respect to lactation space, with specific groups at **Rhode Island Hospital (RIH)** and the **Miriam Hospital (TMH)** facing the greatest challenges. In response to

this need, and with support of TMH Human Resources and a grant from the RIBC, MDF established a new lactation room at TMH for HIV and Infectious Disease physicians as well as one in the TMH Emergency Department, which is part of the largest academic Emergency Medicine program in the U.S. At RIH, with the help of the same RIBC grant, a lactation room is being developed near the operating rooms. Dedicated lactation spaces for physicians at Women and Infants Hospital are under review. Finally, a new lactation space has been created for physicians and female staff at Butler Hospital this past summer.

The RIBC and MDF have also collaborated to develop a list of existing lactation accommodations for physicians in Rhode Island hospitals. This list is posted on the MDF website (<http://biomed.brown.edu/owims/MomDocFamily>) and updated on an ongoing basis.

### EVERYONE CAN BE AN ADVOCATE.

Despite the recognized benefits of breastfeeding, many physician-mothers face overwhelming barriers that prevent them from following the very recommendations they give to their patients. (Table 3) However, as awareness of this gap and its significance for physician-mothers, their families, and their patients increases, support to improve the health of mothers and their babies is gaining momentum, as exemplified by the Surgeon-General's 2011 Call to Action to Support Breastfeeding.<sup>27</sup> Whether or not you are a breastfeeding physician-mother (past, present, or future), here are a few actions to consider in support of your physician and non-physician colleagues who are:

- Advocate for formal lactation support programs and accommodations in every workplace.
- Educate both employees and employers regarding the need for this support and how it will positively affect their businesses (e.g., through the Business Case for Breastfeeding Toolkit).
- Support universal enforceable legislation to improve employer compliance with workplace breastfeeding accommodations.

### Acknowledgments

The authors thank the many, many physician-mothers of MDF who shared their time and stories to participate in this ongoing advocacy effort. Thank you also to Sandra W. Cheng, Vice President of Support Services at The Miriam Hospital, Barbara H. Roberts, MD, Director, Women's Cardiac Center, Miriam Hospital, and Kathleen Hittner, MD, Senior Vice President, Community Health & Perioperative Services at Lifespan, for their support. Finally, MDF welcomes any medical student or physician who is a mother to join the organization via its website.

### REFERENCES

1. American Academy of Family Physicians. Breastfeeding (Policy Statement). <http://www.aafp.org/online/en/home/policy/policies/b/breastfeedingpolicy.html>. Accessed February 12, 2011.
2. Committee on Health Care for Underserved Women, American College of Obstetricians and Gynecologists. ACOG Committee Opinion No. 361: Breastfeeding: maternal and infant aspects. *Obstet Gynecol*. 2007 Feb;109(2 Pt 1):479-80.
3. American Academy of Pediatrics. Policy Statement. Organizational Principles to Guide and Define the Child Health Care System and/or Improve the Health of All Children. Section on Breastfeeding: Breastfeeding and the Use of Human Milk. *Pediatrics*. 2005 Feb; 115(2):496-506.
4. Ip S, Chung M, Raman G, Chew P, Magula N, DeVine D, Trikalinos T, Lau J. Breastfeeding and maternal and infant health outcomes in developed countries. *Evid Rep Technol Assess (Full Rep)*. 2007 Apr;(153):1-186.
5. Tuttle CR, Slavitt WI. Establishing the business case for breastfeeding. *Breastfeed Med*. 2009 Oct;4 Suppl 1:S59-62.
6. Bartick M, Reinhold A. The burden of sub-optimal breastfeeding in the United States: a pediatric cost analysis. *Pediatrics*. 2010 May;125(5):e1048-56. Epub 2010 Apr 5.
7. Centers for Disease Control and Prevention. Breastfeeding Report Card — United States, 2010. <http://www.cdc.gov/breastfeeding/data/reportcard.htm>. Accessed February 12, 2011.
8. Li R, Darling N, Maurice E, Barker L, Grummer-Strawn LM. Breastfeeding rates in the United States by characteristics of the child, mother, or family: the 2002 National Immunization Survey. *Pediatrics*. 2005 Jan;115(1):e31-7. Epub 2004 Dec 3.
9. Guendelman S, Kosa JL, Pearl M, Graham S, Goodman J, Kharrazi M. Juggling work and breastfeeding: effects of maternity leave and occupational characteristics. *Pediatrics*. 2009 Jan;123(1):e38-46.
10. Johnston ML, Esposito N. Barriers and facilitators for breastfeeding among working women in the United States. *J Obstet Gynecol Neonatal Nurs*. 2007 Jan-Feb;36(1):9-20.

11. Mandal B, Roe BE, Fein SB. The differential effects of full-time and part-time work status on breastfeeding. *Health Policy*. 2010 Sep;97(1):79-86. Epub 2010 Apr 18.
12. Ryan AS, Zhou W, Arensberg MB. The effect of employment status on breastfeeding in the United States. *Womens Health Issues*. 2006 Sep-Oct;16(5):243-51.
13. Ortiz J, McGilligan K, Kelly P. Duration of breast milk expression among working mothers enrolled in an employer-sponsored lactation program. *Pediatr Nurs*. 2004 Mar-Apr;30(2):111-9.
14. Cohen R, Mrtek MB, Mrtek RG. Comparison of maternal absenteeism and infant illness rates among breast-feeding and formula-feeding women in two corporations. *Am J Health Promot*. 1995 Nov-Dec;10(2):148-53.
15. Duke PS, Parsons WL, Snow PA, Edwards AC. Physicians as mothers: breastfeeding practices of physician-mothers in Newfoundland and Labrador. *Can Fam Physician*. 2007 May;53(5):887-91, 886.
16. Sattari M, Levine D, Serwint JR. Physician mothers: an unlikely high risk group-call for action. *Breastfeed Med*. 2010 Feb;5(1):35-9.
17. Kacmar JE, Taylor JS, Nothnagle M, Stumpff J. Breastfeeding practices of resident physicians in Rhode Island. *Med Health RI*. 2006;89(7):230-1.
18. Freed GL, Clark SJ, Sorenson J, Lohr JA, Cefalo R, Curtis P. National assessment of physicians' breast-feeding knowledge, attitudes, training, and experience. *JAMA*. 1995 Feb 8;273(6):472-6.
19. Freed GL, Clark SJ, Cefalo RC, Sorenson JR. Breast-feeding education of obstetrics-gynecology residents and practitioners. *Am J Obstet Gynecol*. 1995 Nov;173(5):1607-13.
20. Freed GL, Clark SJ, Lohr JA, Sorenson JR. Pediatrician involvement in breast-feeding promotion: a national study of residents and practitioners. *Pediatrics*. 1995 Sep;96(3 Pt 1):490-4.
21. Breast-feeding: 7 tips for pumping success. <http://www.mayoclinic.com/health/breast-feeding/FL00120>. Accessed February 19, 2011.
22. Mastitis Prevention. <http://www.mayoclinic.com/health/mastitis/DS00678/DSECTION=prevention>. Accessed April 26, 2011.
23. Murtagh L, Moulton AD. Working mothers, breastfeeding, and the law. *Am J Public Health*. 2011 Feb;101(2):217-23. Epub 2010 Dec 16.
24. <http://www.rilin.state.ri.us/Statutes/TITLE23/23-13.2/23-13.2-1.HTM>. Accessed February 17, 2011.
25. U.S. Department of Labor Wage and Hour Division. Fact Sheet #73: Break Time for Nursing Mothers under the FLSA. <http://www.nsl.org/default.aspx?tabid=14389>. Accessed February 17, 2011.
26. Lechner BE, Gottlieb AS, Taylor LE. Effectively mentoring physician-mothers. *Academic Medicine*. 2009 December 84 (12): 1643-1644.
27. U.S. Department of Health and Human Services. *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; 2011. <http://www.surgeongeneral.gov/topics/breastfeeding/index.html>. Accessed March 5, 2011.

*Marina M.C. MacNamara, MPH, is a fourth-year medical student at the Warren Alpert Medical School of Brown University.*

*Kathleen Moren, RN, IBCLC, is a nurse and lactation consultant and Teaching Associate, Department of Family Medicine, at the Warren Alpert Medical School of Brown University.*

*Lynn E. Taylor, MD, is Assistant Professor, Department of Medicine, at the Warren Alpert Medical School of Brown University.*

*Julie Scott Taylor, MD, MSc, IBCLC, is Associate Professor, Department of Family Medicine, at the Warren Alpert Medical School of Brown University.*

#### **Disclosure of Financial Interests**

Marina M.C. MacNamara, MPH, Lynn E. Taylor, MD, FACP, and Julie Scott Taylor, MD, MSc, IBCLC, and/or their spouse/significant other have no financial interests to disclose.

Kathleen Moren, RN, IBCLC, is owner of Healthy Babies, Healthy Moms Inc.

#### **CORRESPONDENCE**

Marina MacNamara, MPH  
The Warren Alpert Medical School of Brown University  
Box G-8119  
Providence, RI 02912  
e-mail: marina\_macnamara@brown.edu



[www.browneurosurgery.com](http://www.browneurosurgery.com)

## **We Made Our Move!**

Now, we're welcoming patients on the 6th floor of the Ambulatory Patient Center (APC), on the Rhode Island Hospital campus. All office visits, testing and support services are now available in one convenient location.



593 Eddy Street, APC Building, 6th. Floor  
Providence, Rhode Island 02903  
Tel: 401-793-9166 Fax: 401-444-2788

Affiliated entity of

