"MERCENARY HIRELINGS" OR "A GREAT BLESSING"?: DOCTORS' AND MOTHERS' CONFLICTED PERCEPTIONS OF WET NURSES AND THE RAMIFICATIONS FOR INFANT FEEDING IN CHICAGO, 1871–1961

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When a mother did not breastfeed her baby in the late nineteenth- and early twentieth-centuries, most doctors recommended that her "unfortunate" infant—"deprived of ... [its] natural sustenance"[1]—be wet nursed.[2] If human milk was wholly unavailable, doctors advised that cow's milk was the second-best alternative but, as one physician lectured mothers, "I say ' best,' but in this connection the word is almost meaningless, for the difference between mother's milk and cow's milk is abysmal. The first is at once a perfect food and an efficient medicine, while the second is a very unsatisfactory food and no medicine at all."[3] Most doctors demonstrated their agreement with this sentiment by going to unusual lengths to procure wet nurses for babies sickened by human milk substitutes, most of which contained cow's milk as their primary, if not sole, ingredient.[4]

Two distinct groups paid for wet nurses' service in the United States at the end of the nineteenth and well into the twentieth centuries. Physicians hired them both to suckle babies living without their mothers in foundling homes and to supply human milk to sick babies in hospitals. Well-to-do families also hired them—usually via the family doctor—as live-in servants when a mother would not or could not breastfeed. Although there was no question that the human milk provided by wet nurses not only benefited babies but in many instances saved their lives, employers constantly weighed the troublesome aspects of housing a wet nurse against a baby's need for her milk. As one Chicago pediatrician warned, if the infant in question was healthy "the balance is not always on the side of the wet nurse."[5]

Wet nurses had such dismal reputations that when a doctor suggested a family hire one, the recommendation almost always was met with dismay. The consternation was due largely to class differences—physicians and the families who hired wet nurses were well-off, while wet nurses tended to be poor women in unusually desperate circumstances. The dichotomy was a recipe for disaster. Mothers who could afford wet nurses deemed them coarse, unruly, and ignorant. According to the families who employed them, wet nurses were such a curse that it was difficult to see any blessing in their milk. The doctors who hired wet nurses to live in foundling homes and hospitals were slightly more forgiving. Most physicians readily admitted that wet nurses had at least one virtue that overshadowed their many alleged vices—their milk saved babies' lives. As Chicago pediatrician Isaac Abt—who often found wet nurses for families with desperately ill infants and also hired them to live and work in the children's hospital that he founded—described the dilemma, a wet nurse's "price was above rubies and they made the family pay it in submission to their whims, accession to their demands, and forbearance with their bad habits."[6]

Historians who have studied the history of infant feeding in the United States have either focused solely on the formulation of artificial foods and ignored the use of wet nurses when a mother did not breastfeed[7] or used the history of wet nursing to examine, among other things, changes in attitudes toward breast *milk* rather than changes in attitudes toward maternal breast*feeding*.[8] Wet nursing, however, was not an insignificant practice in the late nineteenth- and early twentieth-century United States and, as such, is an integral part of the history of changing infant feeding practices.[9] I contend, in fact, that conflicted attitudes toward wet nurses and their milk were so influential that they helped some women justify their own changing attitudes toward maternal breastfeeding. In Chicago, between 1871—when the Chicago Foundlings Home opened its door to orphaned babies and the women willing to wet nurse them—and 1961—when the Board of Health closed the Mothers' Breast Milk Station which had supplied bottled human milk at no cost to premature and sick infants for more than twenty years—employers remained conflicted about wet nurses, their product, and their function. The precipitous decline in maternal breastfeeding rates beginning in the late nineteenth century reflected this ambivalence.[10]

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Any study of wet nursing in the United States is difficult because, as Janet Golden points out, the historical record is meager.[11] We know of wet nurses only through the physicians and mothers who employed them, not through wet nurses themselves. Since private families in the late nineteenth and early twentieth centuries employed wet nurses far more frequently than did institutions, and procured them most often through their family doctor rather than via a newspaper ad, it is not even possible to ascertain the precise extent of their use.[12] But a local study of the use of wet nurses sheds much light on the phenomenon and its meaning for changing infant feeding practices.

Chicago is a particularly apt locale to study the history of wet nursing—and the concomitant changing attitude toward maternal breastfeeding—because the Chicago medical community pioneered techniques to save the lives of premature infants. In doing so they deemed human milk vital to premature infants' care. Consequently, Chicago doctors employed wet nurses in hospitals and found them for the use of private families to a greater extent than physicians in many other cities.[13] Joseph DeLee, the Chicago physician eventually dubbed the "father of modern obstetrics,"[14] observed in 1903 that "without mother's milk, it is almost impossible to raise a premature infant—certainly to be a healthy one." DeLee explained that he had "given up all attempts with [the] artificial feeding [of premature babies], and get mothers' milk at any trouble and expense."[15] In addition to DeLee, Chicago was also home to Julius Hess, the "father of neonatal medicine" who opened the largest premature infant station in the country at Sarah Morris Children's Hospital in 1922.[16] It was there that Hess and Evelyn Lundeen, the station's long-time supervising nurse, determined the three goals of premature infant care—maintenance of body temperature, prevention of infection, and provision of adequate nutrition. Hess and Lundeen defined this adequate nutrition quite simply—as human milk. Thus, if a mother did not

provide her premature baby with milk, one of Sarah Morris's resident wet nurses did.[17] The Chicago medical community long focused on care of the premature infant as a means to lower infant mortality. In 1934 the Chicago Board of Health instituted the Chicago Citywide Plan for the Care of Premature Infants.[18] In conjunction with the Citywide Plan, the Board opened a Mothers' Breast Milk Station in 1938 to provide human milk in bottles free of charge to any infant—at home or in the hospital—who needed it.

The Chicago physicians who specialized in women's and infants' medical care were by no means alone in their preference for wet nurses' milk over artificial food. After listening to several papers on the artificial feeding of infants at a 1908 American Medical Association meeting, one angry physician from Alabama rose from the audience to tell his colleagues, "There would be just as much sense in feeding a man on hay as in feeding a baby on cow's milk. Only one circumstance justifies a man in eating hay, and that is that he can not get any other food.... As long as we can find breast milk there is nothing to justify our giving the baby cow's milk."[19] Doctors based pronouncements like this one on bitter experience. At the New York Infant Asylum, opened in 1865, employees fed babies artificial food with such "disastrous results" that, although the Asylum had cribs for 150, babies occupied no more than twenty-five or thirty beds at a time because the "deaths from innutrition, diarrhœa, and marasmus were equal in number to the admissions ... " Not until the Asylum's directors added a large maternity ward to the building—in order to supply babies with a steady stream of wet nurses—did the institution become "one of the best-conducted, and most successful of the charitable institutions in New York."[20]

Opened in 1871, the Chicago Foundlings' Home likewise employed wet nurses. The Home housed poverty-stricken mothers and their babies, as well as abandoned and orphaned infants. From the start, the babies living at the Home who were unaccompanied by their mothers suffered by far the highest death rates. Cognizant of this, the Home's directors were "always glad to take all the wet-nurses" they could get and required the mothers living in the home *with* their babies to breastfeed their own baby as well as one other.[21] During 1874 alone the Home housed one hundred women, almost all "utterly homeless and friendless," who wet nursed infants.[22] But even with that extraordinary number at their disposal, the Home almost never had enough human milk to keep all their babies well. So distressing was this lack of breast milk that an unprecedented phenomenon was noted in September 1879—the Home had more wet nurses than babies who needed them. Within days, however, the norm once again prevailed.[23]

The Home's directors found the survival of artificially-fed babies so unlikely that they deliberately limited their numbers to no more than ten and lamented in 1882, "our experience has shown us that ... [even that] is too many." When the two rooms in the Home set aside for babies without wet nurses were full, the Home's employees turned over infants left on their doorstep to other charities for care.[24] Even when the personnel at Chicago's hospitals made special pleas to the Home to take in a baby whose mother had died in childbirth, the Home's employees did so only when they had sufficient wet nurses.[25]

As long as the diarrheal death rate among artificially-fed infants stayed high, the medical community remained partial to wet nurses.[26] In 1886, editors of

the popular infant-care magazine, *Babyhood*, encouraged mothers who did not breastfeed to hire a wet nurse and quoted one physician who said, "A wet-nurse *is* a nuisance, but no one who has tried one will ever take any other way of bringing up a baby that she cannot suckle herself."[27] In 1910, the Chicago Board of Health urged mothers to hire a wet nurse rather than bottle feed "for there are certain elements in mother's milk that we cannot supply in any artificial food."[28] The 1927 edition of the U.S. Children's Bureau's popular pamphlet, *Infant Care*, still advised mothers who did not breastfeed to seek a wet nurse's assistance.[29]

It was usually the family physician's responsibility to search and negotiate for a wet nurse when a family needed one. One doctor, curious about how many physicians found wet nurses for families, queried doctors around the country in 1913. Of the eighty who responded, seventy-two claimed to have found a wet nurse for a patient. Most of those said they hired six or more wet nurses a year.[30] Isaac Abt was typical. He often found artificially-fed infants near death on first examination. They were usually in such dire straits that he found their "recovery extremely doubtful, unless something could be done at once." His advice to these infants' mothers was always the same. "First of all," he told them, "we must get a wet nurse." On one of his many sojourns to find a wet nurse, Abt bargained frantically with the matron of a maternity home, eventually trading new lace curtains for a wet nurse's services.[31]

While the doctors who engineered these hunts agreed that wet nurses were the best choice for babies whose mothers did not breastfeed them, most also conceded that their presence portended serious problems for employers. When Chicagoan Anita McCormick Blaine interviewed doctors shortly before her son's 1890 birth, one physician told her that "sufficient mothers' milk" would be most desirable for her son's sustenance, "next best would be [a] *perfect* wet nurse." Another doctor, however, warned Blaine that seeking anything approaching acceptable, let alone perfection, in a wet nurse was folly as wet nurses were "harder to get here than abroad—& more troublesome."[32]

Generally, doctors sympathized with the mothers who complained about their babies' wet nurses. Arthur Meigs, who toiled in vain for many years to create an artificial food that carbon-copied human milk, warned that, "The class of society from which wet-nurses are drawn is a very low one ... and therefore the chance of their being diseased is very great; and, besides, they are generally of such a low order as to be difficult to manage."[33] Another doctor who recommended that a wet nurse was "preferable to handfeeding for an infant under the age of six or eight months" also cautioned that a wet nurse without "the proper mental ... qualifications, such as temperance, equanimity, [and] sense of duty ... " posed an even greater risk to a baby's health than a bottle.[34] Frank Spooner Churchill, a prominent Chicago pediatrician, had similar qualms. "A wet nurse is one-quarter cow and three-quarters devil," he cautioned colleagues at a meeting of the Chicago Medical Society. Nevertheless, he added, if "a good wet nurse" could be located, she would provide a better substitute for mother's milk than any artificial food.[35]

While employers usually attributed a wet nurse's undesirable traits to her class and family background, doctors' pronouncements on a woman's ability to lactate were colored solely by racial and ethnic stereotypes. One doctor argued that American-born females made poor wet nurses compared with Irish and

German immigrants because the former had "flat and narrow chests." He warned potential employers of the inadequacies of American women—"what a want of fulness [sic] and plumpness of body, what small and weak muscles, what a failure in the accumulation of adipose tissue as well as in the development of the lymphatic system generally! These qualities are closely identified with the laws of maternity."[36] Another doctor wrote, "One class [of women] consists of those who have plenty of milk, e.g. Italians and colored mothers."[37] Chicago pediatrician Julius Hess thought the opposite. "The phlegmatic temperaments as seen in women of Northern and Central Europe and of Teutonic and Slavic descent, offer the ideal material," he advised, while "Italians and Southern negroes [sic] when removed from their home environment ... secrete a milk poor in quality." But he also demonstrated the measure of most parents' desperation when he added, "However, even the latter in an emergency should not be neglected."[38]

While most physicians shared these general beliefs, there were others who discounted the possibility that race or ethnicity determined a woman's ability to produce abundant and wholesome milk. One of these doctors, after a lengthy search, found an African-American woman willing to breastfeed a very sick white baby. The baby's shocked mother objected strenuously to the doctor's choice of a wet nurse. The angry doctor promptly offered to find a cow in lieu of the unsuitable wet nurse. What kind of a cow would you prefer, he asked sarcastically, "a black, a white or a red one?"[39]

A few doctors attempted to balance employers' and wet nurses' perspectives. Chicago pediatrician Clifford Grulee explained that, "The natural independence of the lower classes and their failure to appreciate superiority of any sort, combined with the frequent haughtiness of their employers as a result of newly acquired prosperity, raises almost insuperable barriers to domestic peace ... "[40] Julius Hess likewise tried to blur what employers saw as a clear dichotomy—they were well-bred and superior, the wet nurses they hired were ignorant and inferior—by explaining that there were actually two types of wet nurses. One was "well-born" but had fallen on hard times.[41] An 1899 advertisement in the Chicago Medical Society's weekly publication, *The Chicago Medical Recorder*, hinted at just such a situation: "A Widowed Lady, age nineteen, educated, refined, would accept situation as wet-nurse. A good home in a refined family is desired for her."[42] The other type of wet nurse, Hess explained, was born of poverty and likely to gain an exaggerated sense of self-importance if showered with too many unaccustomed luxuries. He suggested, to avoid problems, that the wet nurse "be treated neither as a guest nor as a menial, but so far as possible should be graded according to her previous station in life."[43] Another doctor observed, "The wet-nurse—who often comes from a life of hardship and toil to one of luxury and idleness—naturally eats anything and everything ... As a result, she grows ill, her milk fails, and a change has to be made." He suggested, "notwithstanding the moral objections," that unmarried wet nurses make the best employees as they could "be more easily controlled."[44]

Any reassurances that a doctor could muster comforted private employers little, however. "The natural repugnance of the mother" for a wet nurse was often, in the words of one doctor, "an insurmountable obstacle."[45] Most mothers who did not breastfeed, "having a deeply-rooted prejudice against the whole race of substitute mothers," usually tried bottle feeding first.[46] Only when that led

to disaster did they bring a wet nurse into their home, replacing one distressing experience with another. Mothers felt simultaneously superior to and jealous of the wet nurses who suckled their babies and consequently hid their jealousy behind an impenetrable wall of moral judgment.[47] *Babyhood* magazine defended mothers' behavior: "Nothing can be more repugnant to one's instincts than to trust the dear child, whose natural nourishment has failed, to the care of a woman whose very fitness for the task is evidence of her unchastity."[48]

A letter from one mother, Fanny B. Workman,[49] to *Babyhood* magazine describes a host of typical trials suffered by her as an employer of wet nurses. Workman's letter is unusual only in its detail—many shorter letters to infant-care and women's magazines voice similar complaints. According to Workman, her bottle-fed daughter sickened soon after birth. In dismay, Workman summoned two doctors who—as Abt always did in such cases—immediately suggested hiring a wet nurse. "With a sigh of despair," Workman immediately anticipated "the end of all peace in the household." She quickly agreed to employ "a simple, unintelligent-looking Irish girl" who "placed out" her own baby before starting the job. Workman then devoted a week "to the renovation of the person of the Irish Mary, whom it was necessary to clothe anew from head to foot."[50]

A litany of complaints followed. The nurse was slow in getting out of the way of oncoming carriages when she took Workman's baby for a walk. When the wet nurse carried the infant, "the child's head hung over her arm and vibrated like a pendulum." An extremely annoyed Workman followed the wet nurse around for weeks adjusting her daughter's head. The sneaky wet nurse consumed all the foods that Workman forbad her—tea, ice water, and pickles—lest they spoil her milk, slyly persuading the cook to give them to her. The cook, "that weak-minded individual," had to be fired. When the wet nurse learned that her own baby had taken ill, she wanted to go to the baby at once. In order to dissuade the wet nurse from leaving, Workman arranged—after "hours of search" by Workman's husband—to have the wet nurse's sick baby cared for at a nearby farmhouse. After two weeks the farmer's wife found the infant care too much work "and when the nurse was told her baby must be changed again she became greatly agitated, and consequently her milk had a decidedly bad effect upon her charge." Workman began to hunt for another nurse.[51]

She quickly found another candidate who was "decidedly unattractive, with a face of most heavy, unintelligent mould." When the woman arrived for her job interview with babe in arms Workman, who had specifically requested that she come to the interview "without the child," asked, "Did you not understand that you were to leave your baby?" As her predecessor had done, the woman "placed out" her baby and accepted the job. Two weeks later the new wet nurse received a telegram informing her of her baby's death. "Frantic with grief," she prepared to attend the funeral. An irate Workman complained, "I decided that would never do . . . .After an hour or two spent in argument I prevailed upon her not to go to the funeral. How I made her see that it could in no way benefit her to go, and might kill my child, I do not know, but finally she did see it all." After the death of her child, however, the wet nurse was not as easily ordered about. She "became very unruly and obstinate" and ate foods which did not agree with Workman's baby. Workman fired her. Rather than hire a third wet nurse, Workman offered her baby Mellin's Food[52] mixed with cow's milk "with

perfect success." Her baby consumed the Mellin's Food "with an appetite she had never known" for the "impure" milk of wet nurses. Workman concluded, "the milk of the gentle cow has the advantage over that of the wet-nurse—it is not affected by indulgence in peanuts, cucumbers, and ice-cream."[53]

Mothers wrote to *Babyhood* to commiserate with Workman. Even a mother who defended wet nurses against Workman's assault—because her second baby had been rescued from the ill effects of artificial food by the milk of a wet nurse—agreed that "it would seem superfluous to look for even average mental or moral qualification in persons of the class that furnish wet nurses."[54] Another mother who "thoroughly believed" in wet nurses because her son had become so robust at their breasts, hired seven wet nurses in twenty months. "Many and manifold have been my trials and tribulations," she moaned.[55] Even the mothers who defended wet nurses praised only the product, never the producer.

Despite employers' complaints, the dilemmas inherent in wet nursing were far greater for the wet nurse. Like Fanny Workman, most mothers refused to allow a wet nurse's baby to live in their home. As one *Chicago Tribune* ad unabashedly put it, "Wanted—A Wet-Nurse, WITHOUT A Baby."[56] Consequently, wet nurses, in order "to feed" their own babies, turned them over to a caretaker and artificial food. One private wet nurse employment agency in New York routinely placed wet nurses' babies "out to board." Ninety percent of the babies died.[57]

Physicians readily acknowledged that the hiring of a private wet nurse usually meant a rich baby survived at the expense of a poor baby.[58] Doctors constantly devised solutions to the problem. Julius Hess advised mothers to permit the wet nurse they hired to keep her baby. He explained, "The presence of the wet-nurse's baby predisposes to her peace of mind," and the household could only benefit from her tranquillity.[59] The U. S. Children's Bureau concurred, recommending that a wet nurse be allowed to keep her baby and nurse it alongside her employer's infant because "her peace of mind will insure better breast milk."[60] Chicago pediatrician Clifford Grulee suggested that doctors who placed wet nurses with families feel "morally bound" to assure that the wet nurse's infant "receives the most careful attention."[61] A New York doctor who had seen many "a wet-nurse's starved baby" die charged that "artificial feeding in institutions is the unavoidable outcome of wet-nursing in private families." He proposed national legislation mandating that any woman working as a private wet nurse be allowed to nurse two children, her own and her employer's.[62] But the only state that did anything about the situation was Maryland, where the legislature passed a law in 1916 forbidding the separation of a mother and baby during the first six months of a baby's life. Between 1915 and 1921, Maryland reduced the death rate of babies born to unwed mothers from one out of three to one out of eight. The United States Children's Bureau attributed the decrease in mortality to the likelihood that the law—in requiring that unwed mothers and their babies be kept together—increased breastfeeding rates.[63]

The wet nurses who traded their babies in exchange for employment received perpetually precarious job security in return. One physician noted that the mother of one patient fired thirteen wet nurses in fourteen days. He did not consider this unusual. Quite the contrary, he advised that "it is seldom that the first nurse suits, and often a large number have to be tried."[64] Grulee, disturbed by this trend, suggested that no wet nurse be judged by her first days on the

job. "The complete change of surroundings and diet are frequently the cause of disturbances in the flow of milk," he explained, "and until the woman becomes accustomed to these one should not judge of her fitness as a nurse."[65]

By the early twentieth century—because fewer women were willing to wet nurse for meager, insecure livings—the hunt for wet nurses became more taxing. Physicians, municipalities, and medical charities consequently proposed ways to make the search easier. In 1907, one doctor suggested that the American Pediatric Society spearhead a campaign in every sizable community to organize the registration of wet nurses. Without a systematic way to locate a wet nurse, he fretted, "there is an abundance of mother's milk going to waste all over the country."[66] Another physician complained in 1908 of "something twisted in our arrangement of preventive medicine" because every large American city housed a milk commission to disseminate clean cow's milk to babies, but not a single organization existed to address "the many perplexing problems of the human milk supply." He suggested creating a national *human* milk commission both to maintain a corps of wet nurses and to establish human milk stations for the sale of bottled breast milk.[67] Another doctor proposed that each community appoint one local organization to maintain a list of mothers with a "superabundance" of milk. There was "plenty of human milk to be had," he contended, if only the country's pediatric societies "facilitate[d] its being obtained."[68]

The call to share this precious commodity[69] in lieu of the traditional wet nurse came from many quarters. One Detroit physician suggested that if mothers with abundant milk made their milk available to mothers with insufficient milk, "it would be a great factor in reducing infant mortality as well as preventing a great economic waste."[70] The sharing of human milk came naturally in some locales. In Chicago, mothers who brought their babies to Infant Welfare Society stations for free examinations occasionally breastfed babies whose mothers did not nurse. Station doctors facilitated this aid by telling lactating mothers about particular infants in desperate need of human milk.[71] In such an environment, need for the traditional wet nurse was virtually nonexistent.

This largesse was not ubiquitous, however, and medical personnel continued to devise unconventional methods to locate wet nurses. In Chicago, the Mother and Babe Welfare Association opened a Wet Nurse Bureau of Information in 1905. The Bureau "carefully investigated" all their wet nurses and issued them certificates of health. The Bureau charged employers five dollars for their service, the wet nurse paid nothing. If any wet nurse proved "unsatisfactory," the Bureau provided another at no additional charge.[72] The Chicago Visiting Nurse Association—whose public health nurses had perpetual access to potential wet nurses due to their large postpartum-care service supplied *gratis* to the poor—routinely told their patients that if they had more milk than they needed to sustain their own baby, and if they wanted to work as a wet nurse, they should "report to any large obstetrical service ... and ask if a wet-nurse is needed."[73]

Medical societies in cities throughout the United States struggled to provide wet nurses through an institution designed for that purpose—rather than via doctors' frantic, taxing, lone searches. Members of the Chicago Pediatric Society recommended in 1907 that a bureau to register wet nurses be established in the Chicago Visiting Nurse Association central office. Society members sug-

gested that the bureau advertise its services in the *Bulletin of the Chicago Medical Society* and that data on potential wet nurses—their personality, age, physical condition, and general history—be made available to interested physicians.[74] VNA superintendent Harriet Fulmer agreed to the proposition.[75] The wealthy women who ran the Children's Hospital Society, however, thwarted the Pediatric Society's efforts when they established their own bureau for wet nurses first. Pediatric Society members consequently deemed their own work on such a project "unnecessary."[76]

By the 1910s, the ongoing dearth of wet nurses prompted doctors to urge hospitals to follow the example of foundling homes and hire wet nurses as live-in employees. "The only way to prevent a high mortality in infant hospitals and institutions," a Harvard physician and consultant to the Massachusetts Infant Asylum explained, "is to add a sufficient amount of human milk to the babies' diet to make them resistant to the infections to which they are constantly exposed."[77] Clifford Grulee insisted that "every well-organized children's department must have a wet nurse ... "[78] Chicago doctor Frank Spooner Churchill told colleagues at a meeting of the American Pediatric Society, "I am sure that breast feeding is a most valuable factor in the reduction of our mortality and think wet-nurses should be a part of the regular equipment of a hospital."[79] Isaac Abt contended that, "An infants' hospital, which necessarily must receive the babies who have been most neglected and who require the most expert treatment, should consequently have at hand an ample supply of breast milk."[80]

At Abt's behest, wet nurses lived in a wing of Sarah Morris Children's Hospital—long the pediatric department of Chicago's Michael Reese Hospital—from its inception in 1913.[81] Abt observed that at Sarah Morris, "babies are brought in to us marantic, with cold extremities, on the very edge of the hereafter, and we give them a few teaspoonfuls of breast milk, and keep on giving it, and the babies revive. We do this day after day." With human milk, he contended, most sick babies could be saved, without it, "we would lose nearly every one ... "[82]

Like other doctors who hired wet nurses to work in hospitals, Abt insisted that wet nurses live with and breastfeed their own babies. It not only kept their babies healthy, he explained, but the "natural stimulation to ... [their] breasts" ensured an ample milk supply for the hospitalized infants who received their human milk in bottles. Wet nurses at Sarah Morris produced, on average, thirty-seven ounces of milk per day plus the milk they supplied their own babies. They nursed their own babies at 7 a.m., 11 a.m., 3 p.m., and 9 p.m. and slept a hefty eleven hours—from 9 p.m. to 8 a.m.—because the hospital's nurses awakened them every four hours at night to express the milk eventually given to sick and premature babies.[83]

Sarah Morris's wet nurses earned eight dollars a week plus room and board. In addition to providing milk, they did light cleaning around the hospital. Initially, they learned to express their milk manually. Abt disliked breast pumps, charging that they were inefficient and occasionally injured the breast.[84] In 1922, after Abt invented an electric breast pump, wet nurses at Sarah Morris learned to use it. His pump proved remarkably efficient. It sucked the breast forty-five times a minute, providing more stimulation and consequently causing more milk to be

produced than a hungry infant. The pump worked so well that it procured milk even after women swore that their milk had been depleted by hand expression. Suction pressure could be adjusted to minimize injuries.[85]

Beginning in 1909, Chicago's Children's Memorial Hospital found women willing to wet nurse hospitalized infants through the local Salvation Army Headquarters. Wet nurses fed their own babies on one breast and a sick infant on the other.[86] Frank Spooner Churchill noted that it was "astonishing" how much milk these women supplied the hospital after a few week's employ, due to frequent nipple stimulation. One woman produced five quarts in a single day.[87]

Chicago's Presbyterian Hospital hired a wet nurse in 1914 after the hospital board acquiesced to the appeal of medical personnel to provide a constant supply of human milk to save the "little strangers" cared for at the hospital.[88] Like at Sarah Morris, Presbyterian's wet nurse earned eight dollars a week plus room and board. Her baby lived in the children's ward.[89] In the first four months of her employment, doctors credited her with saving the lives of twenty-five babies.[90] Between July 1916 and September 1916, inclusive, doctors and nurses cared for 136 infants at Presbyterian. Thirty-eight of them received milk from the wet nurse.[91] In 1917, seventy babies drank the wet nurse's milk. One, fed artificially from birth, came to Presbyterian "quite lifeless" and nurses gave him human milk through a feeding tube because he was too weak to suck. At least one Presbyterian doctor attributed his survival to the wet nurse's milk.[92]

In order to prevent infection being passed from wet nurse to baby and vice versa, wet nurses at Presbyterian put only their own babies to their breasts. They withdrew the milk fed to hospitalized babies with the Caldwell breast pump, a suction device, after sterilizing their breasts with boracic [sic] acid. Hospital personnel kept the milk on ice for two to twenty-four hours, as demand dictated.[93] In 1928, Presbyterian ceased having a wet nurse in its permanent employ and hired one only "as needed."[94]

Although doctors who worked with wet nurses in hospitals held their function in higher esteem than did private families, physicians nevertheless spoke of them in similarly derisive, wary tones. Chicago pediatrician Julius Hess helped design a uniform "to overcome the slovenly appearance of the wet nurse as she is usually seen wandering about the wards of an infants' hospital."[95] Grulee cautioned that "careful supervsion [sic] of the wet nurse is very necessary."[96] Joseph DeLee derided both wet nurses and the women who hired them when he accused "women of fashionable society" of pursuing "a busy round of pleasures, late parties, dinners, theater, champagne" rather than breastfeeding their infants. These babies, he told an audience in 1898, were abandoned to life-threatening diseases precipitated by the bottle or "the cold comfort of a mercenary hireling wetnurse."[97] Abt acknowledged that babies "usually flourished on ... [wet nurses'] milk, which fortunately, could not transmit moral qualities along with its health-giving properties ... "[98]

Abt's distrust of wet nurses was so profound that he took precautions "to guard against ... [the] vagaries" of the wet nurses living at Sarah Morris.[99] He ordered the monitoring of each wet nurse's milk output and fired women at the first sign of diminished production. In this manner, he claimed to have caught some

unscrupulous wet nurses diluting their milk with cows' milk and others wholly substituting cow's milk for their own.[100]

The precarious nature of their jobs—not wanton disregard for babies' health—probably forced some Sarah Morris wet nurses into this dangerous mischief, for the turnover rate of wet nurses living in hospitals was as high and involuntary as in private homes. Some hospitals automatically fired a wet nurse when her menstrual cycle resumed.[101] Wet nurses at Sarah Morris automatically lost their jobs when their babies reached a certain age. Even though he knew that a mother's breasts would keep producing milk as long as they were stimulated by sucking, Abt, like many doctors, feared that milk quality hopelessly deteriorated over time and was uncomfortable keeping any wet nurse for more than nine to ten months.[102] Doctors at Chicago's Presbyterian Hospital likewise refused to employ any woman as a wet nurse for long. Although they dubbed at least one of their wet nurses "a great blessing," Presbyterian physicians hired and fired eight wet nurses between July 1914 and November 1916. The shortest tenure was one month, the longest eight and a half months.[103]

Hospital wet nurses' anxiety given their fleeting jobs was likely heightened by the dire circumstances that drove them to wet nurse in the first place. The nurse hired by Presbyterian Hospital in November 1915 was a Canadian whose husband had been killed by well gas the previous February. She was left with three children to care for and pregnant with a fourth.[104] Another Presbyterian wet nurse, hired in June 1916, was a Hungarian woman deserted by her husband while pregnant with her second child. She kept her infant with her at the hospital and used her salary to board her eighteen-month-old.[105] After a stint as a wet nurse, a woman's life usually reverted to its bleak origins. In June 1917 the wet nurse fired by Presbyterian Hospital—"as her infant was eight months old"—was the first in three years of rapid hirings and firings who "had a real home to go to" when she left the hospital. She went to live with her parents.[106]

In the 1920s wet nursing took on yet another form. By 1929 at least twenty American cities provided bottled breast milk to sick and premature infants through human milk stations.[107] The medical personnel who gathered, certified, pasteurized, and bottled human milk at breast milk stations heralded the stations as an improvement in labor relations. They declared their donor-mothers respectable, thrifty women who wanted only to supplement their family's income, utterly unlike their crude, lower-class, "mercenary-hireling" predecessors. Latter-day wet nurses provided their milk in a private manner, immediately and appropriately detaching themselves from their product. As one physician noted, "The feeding of breast milk through the intermediary of a wet nurse is ... an age long procedure, but here is a new venture, of passing the milk of the wetnurse through a bottle to the baby, thus eliminating the presence of the wetnurse in person and thereby solving many difficult problems ... "[108]

These stations' donors continued to be found in the historically devised ways. One doctor declared that as long as a city had a maternity hospital an ample supply of breast milk was guaranteed.[109] Nurses and doctors routinely asked—"in the most natural way"—any hospitalized postpartum woman with abundant breast milk to share milk "with a less fortunate infant whose mother had died in childbirth or who for some good reason could not supply her infant from her

own breast." Most mothers agreed to do so with no thought of payment. Doctors soon discovered, however, that when these mothers' maternity bills came due and additional expenses for their babies piled up, money was a reliable incentive to continue milk donation.[110]

In Chicago, the Board of Health began paying housewives to supply milk with the opening in 1938 of the Chicago Board of Health Mothers' Breast Milk Station. The Station's bottled, pasteurized human milk effectively replaced Chicago's resident hospital wet nurses. The Board of Health's Revised Code likely made the Station imperative—the Code required that every hospitalized premature baby be fed breast milk and that the Board furnish the milk immediately upon request.[111] If the baby's mother did not provide it, hospitals now turned to the Breast Milk Station which supplied the milk at no charge. In 1938 the Station furnished 624 babies with 99,210 ounces of milk purchased from 302 mothers. In 1940, 920 babies consumed 101,561$\frac{1}{2}$ ounces from 246 mothers.[112]

The Board of Health's public health nurses, who visited all new mothers and babies in their homes, located most of the stations' milk donors. On a nurse's first visit to a home, she asked any woman with a lot of milk if she would care to sell her excess milk to the Station. If a mother was interested, the nurse brought her to the Station for a thorough physical and dental examination. After a woman was accepted as a donor, as long as she continued to come in each morning to express her milk, she received free medical examinations. Nurses cultured her throat each week for bacteria and drew her blood each month to check for sexually-transmitted diseases. They examined her baby weekly as well and were especially careful to chart her baby's weight gains.[113]

The Board of Health paid milk donors five cents an ounce for their milk in 1938—selling milk was a particularly convenient way for a mother with a baby to earn money during the Great Depression—nine cents by 1944, and thirteen cents an ounce by the time the Station closed in 1961. In addition, mothers earned a quart of cow's milk each day to supplement their diets as well as street car tokens for their trek to and from the Station. Mothers ordinarily provided their milk for eight to nine months after the birth of their own babies, but Josephine Sobolewski, who became the station's supervisor in 1948, remembered at least one mother who donated for two to two-and-a-half years with each of her several babies.[114]

The occupation of wet nursing, which continued to be a necessary service for almost three decades into the twentieth century, ended with a public largely unaware that many cities housed human milk stations to replace the vanished wet nurse. Bottled breast milk was delivered quietly to hospitals and homes, where mothers and nurses fed it to premature and dangerously ill infants until they revived. Janet Golden has called this the "commodification" of human milk. Breast milk, via human milk stations, became a commodity with its own inherent value, untainted by the unsavory characteristics of its supplier. Most recently, Golden points out, breast milk is not sold at all but donated in a "moral transaction."[115]

Despite her demise, memory of the unsavory wet nurse long remained. The employees at human milk bureaus took great pains to differentiate their respectable

donor-mothers from wet nurses. As one doctor wrote, "This service in no way interferes with the duties of housewife and mother, and exposes her in no way to the public view. The only person with whom she need come in contact is the supervising nurse."[116] Bottled breast milk was said to be a "better foster-mother" than the "perennial wetnurse, that necessary but often slatternly female."[117] Human milk stations now provided milk from disembodied women—not troublesome, omnipresent employees who fed infants directly from their breasts.

Some mothers whose babies received this milk nevertheless had the same objection to using human milk from milk stations as women in previous decades had to using wet nurses—they doubted the "suitability" of the donor. In Detroit, for example, some white women refused to patronize the local breast milk bureau, fearing that the milk was from a "colored mother." Objections were so numerous that the bureau "virtually ceased" accepting milk from African-American women. When milk from an African-American donor was accepted in Detroit it went only to hospitals to be pooled with the milk of white mothers "and furnished to those who have no objections."[118] Milk stations began where wet nursing ended—amidst class rancor, nativism, racism, and distrust of human milk.[119]

* * * * *

Janet Golden has demonstrated how the history of wet nursing traces changing attitudes toward breast *milk*—from a substance produced by a loathsome employee in the late nineteenth and early twentieth centuries, to a product with its own inherent value untainted by an offensive producer from the 1920s through the 1950s, to a health-giving liquid donated in a "moral transaction" by the 1960s[120]—but my research indicates that wet nursing also elucidates doctors' and mothers' changing attitudes toward maternal breast*feeding*. In the late nineteenth and early twentieth centuries, doctors believed human milk to be so essential to babies' health that they went to extraordinary lengths to hire wet nurses for the use of private families and to employ, outfit, house, and supervise them in medical and charitable institutions.

By the end of the nineteenth century, however, physicians' take on human milk was rife with contradiction. They believed, on the one hand, that human milk was so superior to artificial food that it was worth almost any trouble and expense to obtain. On the other hand, they feared that a wet nurse's milk supply might so utterly lack essential nutritive elements by the time a wet nurse's baby was eight or nine months old that the milk could harm any baby who consumed it. Similarly, mothers and doctors alike worried that any change in a wet nurse's unreliable personality and/or diet could taint her milk and poison her tiny charge. Many physicians also believed that certain women—depending on their racial or ethnic backgrounds—were inherently incapable of working as wet nurses because their bodies could not possibly produce milk either quantitatively or qualitatively acceptable to any baby. This sentiment—that breast milk was essential to infants' health but was so volatile that it might harm an infant—explains, in part, the move from breast to bottle.[121]

So does class conflict. Fanny Workman's letter to *Babyhood* magazine is evidence that doctors did not exaggerate the difficulties inherent in wet nursing. In Gilded Age and Progressive Era America, times of unabashed class antagonism, the women who hired wet nurses exhibited animosity toward their employees without compunction. The harsh relationship between wet nurses and the mothers who employed them sheds light, not only on upper- and middle-class attitudes toward the poverty-stricken, immigrant women who worked as servants, but on upper- and middle-class perceptions of women who nursed babies. While wet nurses' employers occasionally lauded their employees' beneficial product, they invariably deemed wet nurses themselves impossibly troublesome—linking breastfeeding with immoral, unworthy women.

Never for a moment did Fanny Workman acknowledge that she owed her baby's life to the efforts of wet nurses. Rather, she expressed outrage that she had been forced to permit these irresponsible, ignorant, and uncouth women to handle her baby at all. Workman exhibited no compassion for her wet nurses' plight. Quite the contrary, she forced them to abandon their own babies to strangers who fed them artificial food. Workman remained angry and unsympathetic even after her second wet nurse's baby died—a baby who was essentially sacrificed so Workman's daughter could live. Almost all mothers who employed wet nurses were similarly negative toward them. The interests of women who worked as wet nurses and the women who employed them could not have been more diametrically opposed. The women who hired wet nurses steadfastly refused to acknowledge even what little they did share with their employees—motherhood.

Women who hired wet nurses linked the product so closely with the producer that any benefit the product provided was overshadowed by what employers perceived as the producers' utter lack of attractiveness and morality. It is not a far cry from thinking a person is beneath one's station to thinking a person's function is beneath one's station. Wet nursing was an occupation limited to only the most desperate women. For the women able to hire private wet nurses, human milk may have been what their babies needed but they could not uncouple the milk from the act of breastfeeding—an activity that they associated with poverty, vulgarity, ignorance, even sin in the case of unwed wet nurses.

Upper- and middle-class women who decided not to nurse their own babies did not choose their own comfort and convenience over their baby's health. Rather, they chose between an activity that was appropriate for their class and an activity that was increasingly inappropriate. Doctors' and upper- and middle-class mothers' contempt for wet nurses does not just illuminate a microscopic chapter in American labor and class relations. The attitudes and convictions of these doctors and well-to-do mothers helped orchestrate the move from breast to bottle. The mothers who could afford to hire wet nurses were beginning to deem maternal nursing less an activity of biological necessity and mother-love and more a pastime of the vulgar lower class.

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ENDNOTES

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1. Arthur V. Meigs, "Proof that Human Milk Contains Only About One Per Cent. Casein; with Remarks Upon Infant Feeding," *Archives of Pediatrics* 1 (April 1884): 217. This article does not mention wet nursing. I quote it here only because Meigs's wording is typical of the way doctors described babies not breastfed by their mothers.

2. Most doctors preferred wet nurses over artificial food but, in practice, babies not breastfed by their mothers consumed artificial food far more frequently than they drank a wet nurse's milk. For more on the history of wet nursing in the United States see Janet Golden, *A Social History of Wet Nursing in America: From Breast to Bottle* (Cambridge, 1996). General histories of wet nursing are Valerie Fildes, *Wet Nursing: A History from Antiquity to the Present* (New York, 1988) and M. Livia Osborn, "The Rent Breasts: A Brief History of Wet Nursing," *Midwife, Health Visitor and Community Nurse* 15 (1979): 302–306; 347–348. For more on the history of infant feeding and why mothers, in significant numbers, began using human milk substitutes in the late nineteenth century see Jacqueline H. Wolf, "'Don't Kill Your Baby': Feeding Infants in Chicago, 1903–1924," *Journal of the History of Medicine and Allied Sciences* 53 (July 1998): 219–253; Jacqueline H. Wolf, "Discarding Nature's Plan: A Social History of Infant Feeding in Chicago, 1892–1938," unpublished PhD dissertation, University of Illinois at Chicago, 1998; and Rima D. Apple, *Mothers & Medicine: A Social History of Infant Feeding 1890–1950* (Madison, 1987).

3. Leonard Keene Hirshberg, "What You Ought to Know About Your Baby: Part V. The Bottle-Fed Baby," *The Delineator* 73 (February 1909): 262. Hirshberg calling human milk a "medicine" as an allusion to the anti-infection factors in human milk, well known to pediatricians practicing at the start of the twentieth century. See, for example, Francis P. Denny, "Value of Small Quantities of Human Milk in the Treatment of Infantile Atrophy and the Infections of Infants," *Journal of the American Medical Association* 47 (8 December 1906): 1904–1909; Francis P. Denny, "Human Milk in the Treatment of Various Infections," *Boston Medical and Surgical Journal* 160 (11 February 1909): 161–163; and J. Madison Taylor, "The Curative Powers in Human Milk," in American Academy of Medicine, *Prevention of Infant Mortality: Being the Papers and Discussions of a Conference Held at New Haven Conn., November 11, 12, 1909*, 66–73. For contemporary studies of the ability of human milk to fend off disease see Lois D. W. Arnold and Elaine Larson, "Immunological benefits of breast milk in relation to human milk banking," *American Journal of Infection Control* 21 (October 1993): 235–236; and Armond S. Goldman, "The immune system of human milk: antimicrobial, antiinflammatory and immunomodulating properties," *The Pediatric Infectious Disease Journal*, 12 (August 1993): 664–669.

4. Cow's milk—adulterated, dirty, spoiled, and bacteria-laden in this era before pure food laws, refrigeration, pasteurization, and the sealing of milk in individual bottles—posed a grave threat to every infant who consumed it. For more on the dreadful state of the urban milk supply in the late nineteenth- and early twentieth-centuries see Wolf, "'Don't Kill Your Baby,'" 226–230; Wolf, "Discarding Nature's Plan," 27–34; Judith Walzer Leavitt, *The Healthiest City: Milwaukee and the Politics of Health Reform* (Madison, 1996), 156–189; Julie Miller, "To Stop the Slaughter of the Babies: Nathan Straus and the Drive for Pasteurized Milk, 1893–1920," *New York History* 74 (April 1993): 159–184; Richard A. Meckel, *Save the Babies: American Public Health Reform and the Prevention of Infant Mortality, 1850–1929* (Baltimore and London, 1990), 62–91; and Manfred J. Waserman, "Henry L. Coit and the Certified Milk Movement in the Development of Modern Pediatrics," *Bulletin of the History of Medicine* (July–August 1972): 359–90. During

this era, most bottle-fed babies consumed unpasteurized cow's milk. If a mother did mix cow's milk with anything it was usually with a commercial human milk substitute. Composed of starches and malt sugars to be mixed with either cow's milk or water or both, these infant foods were widely available in drugstores. For more on commercial infant foods and what they contained see Elisabeth Robinson Scovil, "The Truth About Baby Foods," *Ladies' Home Journal* 19 (August 1902): 26.

5. W. S. Christopher, "Feeding the Healthy Infant," *The Chicago Medical Recorder* 3 (November 1892): 727–728.

6. Isaac A. Abt, *Baby Doctor* (New York, 1944), 111.

7. Rima D. Apple, in her history of infant feeding in the United States, *Mothers & Medicine*, dismisses wet nursing as an insignificant practice in the late nineteenth century. She argues that doctors preferred artificial food to the "physically, psychologically, and morally" imperfect wet nurse when a mother did not breastfeed. I have found just the opposite—that those doctors were a small minority and physicians, medical charities, and government health and welfare agencies consistently recommended, well into the 1920s, the use of a wet nurse when a mother did not breastfeed despite wet nurses' foibles.

8. Janet Golden, in the only book-length study of wet nursing in the United States, examines changing patterns in human milk distribution and the accompanying change in attitude toward both the milk and its provider. In the nineteenth and early twentieth centuries the milk provided by wet nurses was deemed a valuable, albeit volatile, substance sold by "mercenary hirelings." The terms "mercenary" or "mercenary-hireling" were two of the more common epithets hurled at wet nurses, even by the doctors who urged their use. See, for example, Samuel S. Adams, "How Shall We Feed the Baby?" *Archives of Pediatrics* 2 (May 1885): 269–282 and Joseph Edcil Winters, "The Relative Influences of Maternal and Wet-Nursing on Mother and Child," *The Medical Record* 30 (6 November 1886): 508–509. By the second quarter of the twentieth century, as human milk stations opened to distribute human milk in bottles to premature and sick babies, breast milk became a seldom-needed commodity sold by thrifty working-class women. In the last quarter of the twentieth century human milk has become, like blood, a priceless gift donated by selfless individuals. Golden, *A Social History of Wet Nursing*. Because HIV can be transmitted through breast milk—casting suspicion once again upon human milk providers and their product—now even most human milk banks have closed. The few that do exist test their donors carefully. See Lois D. W. Arnold, "How to Order Banked Donor Milk in the United States: What the Health Care Provider Needs to Know," *Journal of Human Lactation* 14 (1998): 65–67.

9. Use of the conventional wet nurse waned slowly in proportion to the growing safety of artificial food. This occurred in several stages—first with the advent of clean water supplies, then with assorted successful efforts to halt the adulteration of the urban milk supply, next with the legal requirement that all milk sold be bottled, sealed, and pasteurized, and, finally, with consumers' access to refrigeration. In Chicago, citizens first glimpsed the possibility of clean drinking water in 1889 when the Illinois legislature authorized construction of the twenty-five-mile-long Sanitary and Ship Canal to drain the city's waste away from Lake Michigan, the city's water supply. Workers began building the Canal in 1892. But the water was not completely safe until the city began chlorinating all drinking water in 1912 and, finally, filtering it in 1947. Donald L. Miller, *City of the Century: The Epic of Chicago and the Making of America* (New York, 1996), 426–432. Clean milk took almost as long to procure. It was more than thirty years—from 1892 to 1926 in Chicago—before the dairy industry acquiesced to reformers' demands to seal (in 1904), bottle (in 1912), and pasteurize milk (in 1916), to keep milk cold during shipping (in 1920), and to test cows for bovine tuberculosis (in 1926). See Wolf, "Discarding Nature's Plan," 9–63. In European countries the growing safety of artificial food had little to do with the decline in the use of wet nurses. George D. Sussman argues that in France, for example, the employment of wet nurses did not taper off as artificial food

grew safer, rather it declined precipitously because of World War I. Wet nursing was such an entrenched practice in France, Sussman contends, that it took World War I—which disrupted access to wet nurses—to demonstrate to families that improved artificial food could safely replace wet nurses. George D. Sussman, *Selling Mother's Milk: The Wet Nursing Business in France 1715–1914* (Urbana and Chicago, 1982), 182–183. Wet nursing, of course, was never the widespread custom in the United States that it was in France.

10. Precise breastfeeding rates in the late nineteenth- and early twentieth-century United States are not known. But as early as 1889 some New England physicians complained that more than half of all mothers did not "properly nurse their offspring." See "The Decline of Suckling Power Among American Women," *Babyhood* 5 (March 1889): 111. The medical community in Chicago was so alarmed by the trend that beginning in 1908 the Department of Health sent out public health nurses to interview mothers of newborns about their infant feeding habits. In 1912, when more than half the women who had given birth in Chicago that year were interviewed, only 39 percent of Chicago's mothers said that they exclusively breastfed their newborns. See Wolf, "Discarding Nature's Plan," 244–246 and Wolf, "'Don't Kill Your Baby,'" 231–232, 234–235.

11. Golden, *A Social History of Wet Nursing*, 3.

12. Medical journal articles (see, for example, issues of *Archives of Pediatrics*, *Journal of Pediatrics*, and *American Journal of Diseases of Children*), newspaper help-wanted ads, doctors' anecdotes, and mothers' letters to magazines (see, for example, issues of *Babyhood*, *Ladies' Home Journal*, and *New Crusade*), confirm that wet nurses were hired well into the twentieth century. One rich source of a physician's personal experience with wet nurses is Isaac Abt's autobiography which he wrote toward the end of his life: Abt, *Baby Doctor*. Infant-care books and pamphlets written as late as the 1920s rarely failed to mention wet nurses as an infant-feeding option. See, for example, U. S. Department of Labor Children's Bureau, *Infant Care* (Washington, D.C., 1927), 59–60. *Infant Care* was an extremely influential booklet. Between 1914 and 1921 alone, Children's Bureau workers mailed almost 1,500,000 copies of the pamphlet to women of every conceivable ethnic, racial, geographic, educational, and class background in the United States. In addition, these women undoubtedly shared the booklet with friends and relatives. Molly Ladd-Taylor, *Raising a Baby the Government Way: Mothers' Letters to the Children's Bureau, 1915–1932* (New Brunswick, NJ, 1986), 2–3. For more on the work of the U.S. Children's Bureau see Kriste Lindenmeyer, *"A Right to Childhood": The U.S. Children's Bureau and Child Welfare, 1912–46* (Urbana and Chicago, 1997).

13. This is not to say that physicians in other areas did not hire wet nurses, they did. Pediatricians in Boston, for example, were particularly active in ensuring the constant availability of wet nurses via the Boston Wet Nurse Directory. See Janet Golden, "From Wet Nurse Directory to Milk Bank: The Delivery of Human Milk in Boston, 1909–1927," *Bulletin of the History of Medicine* 62 (Winter 1988): 589–605.

14. For more on DeLee see Jeffrey P. Baker, *The Machine in the Nursery: Incubator Technology and the Origins of Newborn Intensive Care* (Baltimore and London, 1996), 76–77, 114–122, 126–129; Judith Walzer Leavitt, "Joseph B. DeLee and the Practice of Preventive Obstetrics," *American Journal of Public Health* 78 (October 1988): 1353–61; and Ira Berkow, *Maxwell Street: Survival in a Bazaar* (New York, 1977), 167–81.

15. Joseph B. De Lee, "Infant Incubation, With the Presentation of a New Incubator and a Description of the System at the Chicago Lying-In Hospital," *Quarterly Bulletin of Northwestern University Medical School* 5 (September 1903): 259–260. Physicians now know that the milk of women whose babies are born prematurely differs significantly from those who deliver at term and is much better suited to the unique needs of the premature infant. "Preterm" milk, for example, has a much higher concentration of anti-infection factors. See Margit Hamosh, "Digestion in the Premature Infant: The Effects of Human Milk," *Seminars in Perinatology* 18 (December 1994): 485–491 and Armond S. Goldman,

et. al, "Immunologic Protection of the Premature Newborn by Human Milk," *Seminars in Perinatology* 18 (December 1994): 495–501.

16. For more on the work of Julius Hess see Baker, *The Machine in the Nursery*, 168–74.

17. Evelyn C. Lundeen, "History of the Hortense Schoen Joseph Premature Station," *The Voice of the Clinic* 2 (Fall 1937): 8, Michael Reese Hospital Papers, Box 113, Folder 113.04, Chicago Jewish Archives, Spertus College, Chicago, Illinois; Julius H. Hess and Evelyn C. Lundeen, *The Premature Infant: Medical and Nursing Care* (Philadelphia, 1941), 153.

18. The Chicago City-Wide Plan for the Care of Premature Infants required that medical personnel attending a birth report any premature birth to the Board of Health within one hour. The Board responded to calls by sending a specially equipped ambulance and trained personnel to transport the baby from a home or hospital to the nearest premature infant station. The Plan also required that premature infants be fed only breast milk, preferably the milk of their mothers but, if not, the milk of wet nurses. Julius H. Hess, "The Chicago City-Wide Plan for the Care of Premature Infants," *Journal of the American Medical Association* 107 (8 August 1936): 400–403; Julius H. Hess, "Chicago Plan for Care of Premature Infants," *Journal of the American Medical Association* 146 (7 July 1951): 891–893.

19. "Abstract of Discussion on Papers of Drs. Synder, Davis, Pisek, Jacobi and Southworth," *Journal of the American Medical Association* 51 (10 October 1908): 1224.

20. J. Lewis Smith, "Recent Improvements in Infant Feeding," *Transactions of the American Pediatric Society* 1 (1889): 87. In 1885 the charities that cared for orphaned babies in New York City reported that between 1881 and 1885, 27 percent of the foundlings breast-fed by wet nurses died. But when caretakers fed foundlings artificially, 70 percent died during their first year and 90 percent died before their second birthday. Jerome Walker, "Is Nursing by the Mother to be Encouraged?" *Archives of Pediatrics* 2 (January 1885): 2. Although it is difficult to assess the "normal" death rate of infants during this era, the death rate of New York's wet-nursed orphans fell within the 15 to 30 percent range that demographers now estimate was the mid-nineteenth century mortality for all babies. Meckel, *Save the Babies*, 1. As Richard Meckel explains, both poor record keeping and few surviving records preclude precise estimates of infant death in the nineteenth century. Demographers nevertheless agree that 15 to 20 percent of babies died during their first year in most areas in the United States, while in some large cities and in some southern locales up to 30 percent of infants died. For more precise estimates of nineteenth-century infant mortality, particularly according to social and economic differences, see Samuel H. Preston and Michael R. Haines, *Fatal Years: Child Mortality in Late Nineteenth-Century America* (Princeton, NJ, 1991), 49–136.

21. "Fourth Annual Report of the Chicago Foundlings' Home," *The Chicago Foundlings Record* 5 (February 1875): 13–14, Chicago Historical Society; "God's Dealings with the Foundlings," *Faith's Record* 9 (October 1879): 82, Chicago Historical Society; "Twelfth Annual Report," *Faith's Record* 12 (February 1883): 12, Chicago Historical Society.

22. "Fourth Annual Report," (February 1875): 14–15.

23. "God's Dealings" (October 1879): 82.

24. "God's Dealings With the Foundlings," *Faith's Record* 12 (July 1882): 51, Chicago Historical Society.

25. "God's Dealings with the Foundlings," *Faith's Record* 12 (August 1883): 58, Chicago Historical Society.

26. Of the estimated 38,764 babies born in Chicago in 1897, for example, 15 percent died before their first birthday. Of the dead, 54 percent died of diarrhea. Doctors blamed the crisis on mothers who fed their babies something other than human milk, usually cow's milk. Wolf, "'Don't Kill Your Baby,'" 219–222. Infant deaths from diarrhea did not begin to wane appreciably in Chicago until 1920 and remained a significant cause of infant death until the late 1930s. Wolf, "Discarding Nature's Plan," 16–17.

27. "Nursery Problems," *Babyhood*, 2 (June 1886): 245–246.

28. Department of Health City of Chicago, "Feeding of the Baby During the First Month," *Bulletin Chicago School of Sanitary Instruction* 4 (4 June 1910): 2.

29. U. S. Children's Bureau, *Infant Care*, 59–60.

30. Fritz B. Talbot, "The Wet-Nurse Problem," *National Conference on Infant Mortality Report of the Proceedings* (1913): 324.

31. Abt, *Baby Doctor*, 94–95.

32. Handwritten notes entitled "Dr. Jaggard" and "Dr. Geisler" 1890, Anita McCormick Blaine Papers, McC Mss 2E Box 9, Folder n. d. 1890, Manuscripts Library, State Historical Society of Wisconsin, Madison, Wisconsin.

33. Arthur W. Meigs, "The Artificial Feeding of Infants," *Transactions of the American Pediatric Society* 1 (1889): 81.

34. Smith, "Recent Improvements," 88–89.

35. Frank Spooner Churchill, "Infant Feeding," *The Chicago Medical Recorder* 10 (February 1896): 109.

36. Nathan Allen, "Laws of Maternity," *Babyhood* 5 (March 1889): 112–113.

37. Frank Richardson, "Breast Feeding," *Everybody's Baby*, 1 (May 1928): 12, Health Fraud and Alternative Medicine Collection, Box 244, Folder 0244–14, American Medical Association Archives, Chicago, Illinois.

38. Julius H. Hess, *Feeding and Nutritional Disorders in Infancy and Childhood* (Philadelphia, 1928), 46.

39. Thompson S. Westcott, "Modified Wet Nursing," *Archives of Pediatrics* 24 (March 1907): 198. A physician made this comment during a discussion following the presentation of Westcott's article. Worry over "unsuitable" wet nurses was also due to the widespread notion that a wet nurse's personality and appearance could be transmitted to her young charge through her milk. See for example, "The Influence of the Milk of Wet-Nurses," *Babyhood* 3 (October 1887): 372 which tries to convince mothers of the absurdity of this belief. The origin of this conviction is, according to Leonell C. Strong, "lost in ancient times." See Leonell C. Strong, "Mother's Milk and the Offspring," *Journal of the History of Medicine and Allied Sciences* 8 (1953): 210–214.

40. Clifford G. Grulee, *Infant Feeding* (Philadelphia and London, 1914), 94–95.

41. Hess, *Feeding and Nutritional Disorders*, 49.

42. "News Items," *The Chicago Medical Recorder* 17 (October 1899): 265.

43. Hess, *Feeding and Nutritional Disorders*, 49.

44. C. Cleveland, "Some Observations Upon the Feeding of Infants," *Archives of Pediatrics* 1 (June 1884): 389.

45. Thompson S. Westcott, "Modified Wet Nursing," *Transactions of the American Pediatric Society* 18 (1906): 16.

46. Fanny B. Workman, "The Wet-Nurse in the Household," *Babyhood* 2 (March 1886): 142.

47. For more on mothers and wet nurses and the nursery as their "contested terrain" see Janet Golden, "Trouble in the Nursery: Physicians, Families, and Wet Nurses at the End of the Nineteenth Century," in Carol Groneman and Mary Beth Norton, eds., *"To Toil the Livelong Day" America's Women at Work, 1780–1980* (Ithaca, NY, 1987), 125–137. See also Golden, *A Social History of Wet Nursing*, 156–178.

48. "The Influence of the Milk of Wet-Nurses," *Babyhood* 3 (October 1887): 372.

49. According to Janet Golden, Fanny Bullock Workman, a Massachusetts mother, was quite well-to-do—she was the wife of a physician and the daughter of a former Massachusetts governor—when she wrote the letter to *Babyhood*. She eventually became an author and explorer, setting world records in mountain climbing. Golden, *A Social History of Wet Nursing*, 159–160.

50. Workman, "Wet-Nurse in the Household," 142–143.

51. Ibid., 143.

52. Mellin's Food, invented by London chemist Gustav Mellin in 1866, was a "soluble, dry extract of wheat, malted barley and bicarbonate of potassium ... converted into soluble carbohydrates, maltose and dextrins, and by evaporation reduced to a dry powder consisting of maltose, dextrins, proteins and salts" to be mixed with a prescribed amount of milk. Mellin Food Company, "Historical," 1914 pamphlet, Box 393, Folder 0393–03, AMA Health Fraud and Alternative Medicine Collection.

53. Workman, "Wet-Nurse in the Household," 144.

54. "Nursery Problems," *Babyhood* 2 (June 1886): 245.

55. "A Defence of Wet-Nurses," *Babyhood* 3 (September 1887): 352.

56. *The Chicago Daily Tribune*, 25 January 1885, 20.

57. Talbot, "The Wet-Nurse Problem," 325.

58. For more on the high death rate among wet nurses' infants see Golden, *A Social History of Wet Nursing*, 97–98; 121–127. Also see Golden, "Trouble in the Nursery," 135.

59. Hess, *Feeding and Nutritional Disorders*, 51.

60. U.S. Children's Bureau, *Infant Care*, 59.

61. Grulee, *Infant Feeding*, 95.

62. Winters, "The Relative Influences," 511, 513.

63. "'Six Months Law' Has Good Results," *Hygeia* 3 (July 1925): 413.

64. Cleveland, "Some Observations," 389.

65. Grulee, *Infant Feeding*, 95.

66. Westcott, "Modified Wet Nursing," (March 1907): 198. A doctor made this suggestion during a discussion following the presentation of Westcott's article.

67. J. Ross Snyder, "The Breast Milk Problem," *Journal of the American Medical Association* 51 (10 October 1908): 1214.

68. Francis P. Denny, "Human Milk in the Treatment of Various Infections," *Boston Medical and Surgical Journal* 160 (11 February 1909): 162–163.

69. Janet Golden argues that by the early twentieth century, as the use of wet nurses declined, women and doctors began viewing human milk as a commodity "identified by its value to those who received it rather than by the character of its producers." Golden, *A Social History of Wet Nursing*, 179.

70. B. Raymond Hoobler, "Problems Connected with the Collection and Production of Human Milk," *Journal of the American Medical Association* 69 (11 August 1917): 421.

71. "Annual Report of the Infant Welfare Society of Chicago for the Year Ending December 31st, 1911," p. 11, Infant Welfare Society Papers, Box 2, Folder 2, Chicago Historical Society.

72. "News Items," *The Chicago Medical Recorder* 27 (December 1905): 871.

73. Edna L. Foley, *Visiting Nurse Manual* (The Visiting Nurse Association of Chicago, 1914), 42.

74. Chicago Pediatric Society Proceedings, 19 November 1907, Special Collections, Regenstein Library, The University of Chicago.

75. Ibid., 17 December 1907.

76. Ibid., 20 October 1908.

77. Denny, "Value of Small Quantities," 1908–1909.

78. Clifford G. Grulee, "Infant Feeding at the Presbyterian Hospital," *The Presbyterian Hospital Bulletin* (April 1916): 9, Rush-Presbyterian-St. Luke's Medical Center Archives, Chicago, Illinois.

79. Frank Churchill speaking in a discussion after the presentation of L. Emmett Holt, "A Ready Method of Calculating Milk Formulas of Various Percentages and the Caloric Value of the Same," *Transactions of the American Pediatric Society* 23 (1911): 281.

80. Isaac A. Abt, "The Technic of Wetnurse Management in Institutions," *Journal of the American Medical Association* 69 (11 August 1917): 418.

81. For more on Sarah Morris Children's Hospital, which Abt founded, see Abt, *Baby Doctor*, 134–153 and Sarah Gordon, ed., *All Our Lives: A Centennial History of Michael Reese Hospital and Medical Center 1881–1981* (Chicago, 1981), 62–93.

82. "Abstract of Discussion on Papers of Drs. Sedgwick, Abt and Hoobler," *Journal of the American Medical Association* 69 (11 August 1917): 427.

83. Abt, "Technic of Wetnurse Management," 418–420.

84. Ibid., 419.

85. I. A. Abt, "Observations on the Electric Breast Pump," *Alumni Bulletin The Chicago Lying-In Hospital and Dispensary* (February 1926): 5, 7–8.

86. F. S. Churchill, "The Wet Nurse in Hospital Practice," *American Journal of Obstetrics and Diseases of Women and Children* 70 (1914): 499. Only three years earlier Churchill claimed that wet nurses at Children's Memorial Hospital never directly breastfed hospitalized infants, rather they pumped their milk to prevent being infected by a sick baby. See the discussion following Holt, "Ready Method," 281. From what Churchill writes in this 1914 article, however, the policy must have been dropped. Traditionally doctors had been concerned, not that a wet nurse would transmit disease to a baby, but that a baby might transmit disease, particularly syphilis, to a wet nurse. In a series of eighteenth-century experiments in a Parisian hospital, syphilitic wet nurses given mercury by medical personnel breastfed babies with congenital syphilis in the hope that the mercury would be passed via the breast milk to the sick baby and cure the infant of the disease. During the course of the experiments, doctors observed that syphilis was easily transmitted from baby to wet nurse (many of the women who lived at the hospital had acquired syphilis in this manner) but very rarely from wet nurse to baby. Joan Sherwood, "Treating Syphilis: The Wetnurse as Technology in an Eighteenth-Century Parisian Hospital," *Journal of the History of Medicine and Allied Sciences* 50 (July 1995): 315–339.

87. Frank Churchill speaking in a discussion after the presentation of Holt, "A Ready Method," 281.

88. "Social Service," *Presbyterian Hospital Bulletin* (April 1914): 7–9, Rush-Presbyterian-St. Luke's Medical Center Archives, Chicago, Illinois.

89. Ibid.; Grulee, "Infant Feeding at the Presbyterian Hospital," 10.

90. "Social Service," (April 1914): 7–9.

91. "Social Service Report—(October 1916," *The Presbyterian Hospital Bulletin* (October 1916): 22, Rush-Presbyterian-St. Luke's Medical Center Archives, Chicago, Illinois.

92. "Unified Report of the Woman's Auxiliary Board of the Presbyterian Hospital of Chicago for 1917," *The Presbyterian Hospital Bulletin* (January 1918): 27, Rush-Presbyterian-St. Luke's Medical Center Archives, Chicago, Illinois.

93. Grulee, "Infant Feeding at the Presbyterian Hospital," 9.

94. Mrs. Perkins B. Bass, "Unified Annual Report," *The Presbyterian Hospital Bulletin* (January 1928): 8, Rush-Presbyterian-St. Luke's Medical Center Archives, Chicago, Illinois.

95. Julius H. Hess, "Uniform for the Wet Nurse," *The Modern Hospital* 7 (September 1916): 265.

96. Grulee, "Infant Feeding at the Presbyterian Hospital," 11.

97. Joseph B. DeLee, "Motherhood An Address before the Women's Society of Isaiah Temple," 4 January 1898, Joseph B. DeLee, M.D. Papers, Folder 17, Box 9, Northwestern Memorial Hospital Archives, Chicago, Illinois.

98. Abt, *Baby Doctor*, 147.

99. Ibid.

100. Abt, "Technic of Wetnurse Management," 419.

101. This did not happen at Sarah Morris, however, because doctors there found, contrary to popular belief, that menstruation had little, if any, effect on milk quality. Ibid., 420.

102. Ibid.

103. M. Rohtge, "Report from the Children's Ward," (July 1914): 11; Elizabeth Douglas, "Quarterly Report of the Social Service Department," (October 1914): 13; "Social Service Report," (July 1915): 6; "Social Service Report," (October 1915): 12; "Social Service Report," (January 1916): 9; "Quarterly Report—Social Service Work April–July," (July 1916): 21. All reports are from issues of *The Presbyterian Hospital Bulletin*, Rush-Presbyterian-St. Luke's Medical Center Archives, Chicago, Illinois. Doctors eventually reversed their conviction that human milk was doomed to deteriorate in quality over time. As early as 1915 Luther Holt and others reported that the milk produced by a mother whose baby was 10 to 20 months old did not differ substantially from the milk produced by a mother whose baby was 1 to 9 months old. L. Emmett Holt, Angelia M. Courtney and Helen L. Fales, "A Chemical Study of Woman's Milk, Especially Its Inorganic Constituents," *American Journal of Diseases of Children* 10 (October 1915): 2380. In 1917 Fritz Talbot concurred with Holt, pointing out that women in Japan and other countries routinely nursed their babies for 3 to 4 years with no ill effect. "Abstract of Discussion on Papers of Drs. Sedgwick, Abt and Hoobler," 425. Nevertheless, it was still many years before this theory was generally accepted.

104. "Social Service Report," (January 1916): 9. Inexplicably, this wet nurse "placed out" her baby when he was two months old in order to work at the hospital. Her three older children went to relatives.

105. "Quarterly Report—Social Service Work April–July," *The Presbyterian Hospital Bulletin* (July 1916): 21, Rush-Presbyterian-St. Luke's Medical Center Archives, Chicago, Illinois.

106. "Social Service Report April–June," (July 1917): 15.

107. James A. Tobey, "A New Foster-Mother," *Hygeia* (November 1929): 1110.

108. B. Raymond Hoobler, "The Production, Collection and Distribution of Human Milk: Retrospect and Prospect," *Journal of the American Medical Association* 88 (4 June 1927): 1786.

109. Ibid., 1787. Prior to the 1920s women who could afford to do so usually summoned a physician or midwife to their home to attend a birth. Generally, only poor women gave birth in the hospital and, this doctor implies, these women were eager to alleviate their poverty by wet nursing or selling their milk to be bottled. Hospital births were mainstreamed more rapidly in Chicago than in other locales, however. By 1926, 55.1 percent of mothers in Chicago gave birth in hospitals. By 1930, 68 percent did. "Births in Hospitals Increase," *Report of the Department of Health of the City of Chicago for the Years 1926 to 1930* (Chicago: 1931), 243. In the United States as a whole more than half of all births did not take place in hospitals until 1940. See Neal Devitt, "The Transition from Home to Hospital Birth in the United States, 1930–1960," *Birth and the Family Journal* (1977): 56. For more on the history of childbirth in the United States see Judith Walzer Leavitt, *Brought to Bed: Childbearing in America, 1750–1950* (New York, 1986).

110. Hoobler, "Production, Collection and Distribution of Human Milk," 1787.

111. Chicago Board of Health, "Regulations for the Conduct of Maternity Hospitals, Maternity Divisions of General Hospitals, and Nurseries for the Newborn," undated but written between 1931 and 1938 as part of the "Revised Code of 1931," p. 32, Municipal Reference Collection, Harold Washington Library, Chicago, Illinois; City of Chicago Employment History for Gertrude Plotzke (Plotzke opened the Mothers' Breast Milk

Station at the behest of Chicago Health Commissioner Herman Bundesen and remained its supervisor until 1948 when she became superintendent of the nurses at both the Breast Milk Station and the Health Department's infant welfare stations); Health Department City of Chicago, "Mothers' Breast Milk Station," *Report of the Board of Health for the Year 1940*, 15.

112. Health Department City of Chicago, "Mothers' Breast Milk Station," 15.

113. Mrs. Gertrude Rosenberger (nee Plotzke), interview by author, tape recording, Chicago, Illinois, 10 December 1996.

114. Mrs. Josephine Zuzak Sobolewski, interview by author, tape recording, Chicago, Illinois, 28 April 1997. Sobolewski became the Breast Milk Station's supervisor after Plotzke was promoted to superintendent.

115. Golden, *A Social History of Wet Nursing*, 179–201.

116. Hoobler, "Production, Collection and Distribution of Human Milk," 1787.

117. Tobey, "A New Foster-Mother," 1110.

118. Hoobler, "The Production, Collection and Distribution of Human Milk," 1788.

119. Interestingly, there is no record of anyone in Chicago ever broaching the issue of a milk donor's race. The Chicago Board of Health Mothers' Breast Milk Station was located in an African-American neighborhood and virtually all the mothers who provided the Station with milk were black. Sobolewski interview.

120. Golden, *A Social History of Wet Nursing*.

121. This was part of a more general worry among doctors and women that all mothers had the potential to produce milk either quantitatively or qualitatively inadequate for their babies' needs. Doctors feared this was an unavoidable trend caused by "overcivilization," "overeducation," "race degeneracy," and/or human evolution. See Wolf, " 'Don't Kill Your Baby,' " 242; Wolf, "Discarding Nature's Plan," 26–38; Apple, *Mothers & Medicine*, 6–7; and Harvey Levenstein, " 'Best for Babies' or 'Preventable Infanticide'? The Controversy over Artificial Feeding of Infants in America, 1880–1920," *The Journal of American History* 70 (June 1983): 88–89.