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Breastfeeding: A Landmark in Global Public Health

Melissa Tinling

Fall 2009 Semester

In the established practice of public health and the emerging field of global health, what is the meaning of the combined term “global public health”? The author, Melissa Tinling, defines the concept and gives an illustration using the model of the global effort to promote, protect, and support breastfeeding as outlined by the joint WHO and UNICEF *Global Strategy for Infant and Young Child Feeding*. Using this central framework the responsibilities of the global, international, national, and local levels are depicted within the context of Geneva, Switzerland. The author identifies and explores key ethical considerations implicated in the application of the global public health strategy to breastfeeding.

All of the opinions in this report are the author's own interpretations and do not necessarily reflect the opinions of any of the engaged individuals or organizations.

SIT Study Abroad: Switzerland and Croatia

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“There is no finer investment for any community than putting milk into babies.”

~Winston Churchill

In January of 2010, I will begin my first semester as an active student of the Gillings School of Global Public Health at the University of North Carolina, Chapel Hill. Before writing of this paper, however, I had no concrete idea of what “global public health” really was. Nowhere on the Gillings School’s website is there an explicit definition of the concept, and the World Health Organization also does not give a definition. The academic fields of public health and of global health, however, have been defined in many academic circles. In the June 2009 Lancet article “Towards a Common Definition of Global Health,” Koplan et al define global health as action that “involves many disciplines within and beyond the health sciences and promotes interdisciplinary collaboration; and is a synthesis of population-based prevention with individual level clinical care,” (2009). Their article traces the evolution of public health through international health and then to global health, arguing that the progression followed a paradigm shift that “emphasizes the mutuality of real partnership, a pooling of experience and knowledge.” Although the term global health seems to imply a focus on the geographical scale of health issues, Koplan et al argue that the “the global in global health refers to the *scope* of problems, not their location.”¹ With global health defined, what is the purpose of inserting the word “public”? How is “global public health” different than plain global health? In 1920, C.E.A Winslow defined public health as “the science and art of preventing disease, prolonging life and promoting physical health and efficacy through organized community efforts,” (Koplan 2009). The key element of Winslow’s definition that differs from Koplan et al is the focus on “organized

¹ Added emphasis.

community efforts” as the mechanism for effecting change. Merging Winslow and Koplan et al, global public health is illuminated as the organization of individual care and community action into an interdisciplinary, population-level global framework to effect positive change in human health². To work effectively, global public health requires a central synthesizing body to define a global strategy and to divide responsibility for action among different actors.

Parallel to the evolution of the concept of global public health, many human health issues have also developed in scope and understanding over the past few decades. According to Dr. Manuel Carballo, the self-declared impetus for setting the global public health campaign for breastfeeding in motion, breastfeeding is the only example in the history of the World Health Organization (WHO) in which a problem was identified, a systematic approach was created, necessary resources were assembled, and action was implemented. “Breastfeeding was the first battle for global public health,” Carballo asserts, “it is a landmark in the World Health Organization” (2009). Throughout one month of interactive research in Geneva, Switzerland, including 15 interviews, 6 field experiences and 7 lectures, I have come to understand Carballo’s conceptualization of breastfeeding as a marking in the progress of global public health. As a health campaign, breastfeeding is an exemplary model of the pluralistic community collaboration and of the division of responsibility that comprise a global public health campaign. Using the framework designed in the WHO and UNICEF *Global Strategy for Infant and Young Child Feeding*, this reports identifies the importance of breastfeeding as both a health issue and a global issue, examines the specific actions being taken by global, international, national, and local actors as it functions for the population of Geneva, Switzerland, and explores the ethical

² In this report, “health” follows the WHO definition: “a state of complete physical, mental and social well-being and not merely the absence of disease or infirmity.”

considerations involved in the global breastfeeding campaign. As a model in global public health, community level action will be argued as the foundation of the mobilization of the *Global Strategy for Infant and Young Child Feeding*.

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Part I: The Challenge

Human beings are taxonomically known as *Homo sapiens*: the last remaining species of the *Homo* genus. We are also members of the class *Mammalia*: the group of vertebrates whose females have mammary glands to feed their young; the word “mammalia” is rooted in the classical Latin “mamma”, meaning breast or udder. Indeed, the two primary Oxford English Dictionary definitions of breast are “each of the two soft protuberances situated on the thorax in females, in which the milk is secreted for the nourishment of their young” and “source of nourishment”. In Old English, breast was used figuratively to mean “the seat of the affections and emotions...the heart; hence, the affections, private thoughts and feelings.” Clearly, in the English language, breasts are defined by their *function*: to nourish both body and spirit. In the fundamental character of human anatomy and physiology, mammary glands are embroidered into a tapestry of corresponding health needs and events for the mother and the child that ensure the survival of each generation of young. According to WHO and UNICEF, “mothers and babies form an inseparable biological and social unit; the health and nutrition of one group cannot be divorced from the health and nutrition of the other,” (2003). Through breastfeeding,

evolution has equipped mother and child with a perfectly coordinated succession of events that ensure mutual survival and optimal growth.

Also from Latin, our species name “homo sapiens” was chosen because of our unusually large brains: it literally means “wise man”. Despite our self-proclaimed intelligence, a crevasse has opened between our biological mammary equipment and our willingness to use it: today, a large percentage of mothers do not practice the innate ability to nourish their young with human milk. Food technology has created a viable and socially acceptable alternative: infant formula, often in the form of a powdered milk product. According to recent UNICEF data, only 38% of infants less than five months old are exclusively³ breastfed, only 50% of six to nine month old children are breastfed, and only 39% of twenty to twenty-three month children old are breastfed. Global public health faces a significant challenge in essaying to raise these percentages.

The health benefits of breastfeeding have been documented for decades. However, it is also well understood that health information does not translate automatically into action, especially when behavioral change is required. Therefore, despite all of the evidence gathered on the importance of breastfeeding for both child and maternal health, global public health efforts have not succeeded in achieving the WHO recommendation of six months of exclusive breastfeeding. In order to address the challenge of increasing the prevalence of breastfeeding WHO and UNICEF have synthesized their data, experience, and recommendations into the *Global Strategy on Infant and Young Child Feeding* (Global Strategy). As a global public health framework, the Global Strategy attempts to bridge the gap between information and behavioral change by delegating specific responsibilities to each member of global society, including

³ “Exclusive” breastfeeding is giving no substance but breast milk, not even water.

governments, health services, non-governmental organizations, community groups, commercial enterprises, employers, educational authorities, mass media, and child care facilities. The self-declared aim of the strategy is “to improve- through optimal feeding- the nutritional status, growth and development, health, and thus the survival of infants and young children.” This “guide for action” was based on past efforts such as the *Innocenti Declaration on the Protection, Promotion, and Support of Breastfeeding* (1990) and the Baby Friendly Hospital Initiative (1991). “What is novel about the Global Strategy,” however, “is its integrated comprehensive approach... it should be as participatory as possible,” says WHO and UNICEF⁴ (2003). If the Global Strategy could secure correct feeding practices for 90% of the world’s children, it is estimated that the child mortality rate would be reduced by one fifth. In addition, according to a 2008 series of articles in the *Lancet*, over 1.4 million lives of children under five could be saved by six months of exclusive breastfeeding (Norton 2009). As UNICEF declares in *Ensuring Optimal Feeding of Infants and Young Children during Emergencies*, infant feeding has the “single greatest potential impact on child survival,” (2007).

I. Is breastfeeding a health issue?

In the struggle to effect behavioral change, the global public health campaign for breastfeeding may be met with criticism that breastfeeding is a lifestyle choice and should not be mandated upon women. However, the health benefits of breastfeeding, and in many places the risks of not breastfeeding, are too great to be ignored. According to UNICEF, “the period from birth to two years of age is the ‘critical window’ for the promotion of good growth, health, and

⁴ The United Nations Children’s Fund

behavioral development”. Therefore, correct infant feeding during this time is crucial to the survival of each generation (UNICEF 2007).

The only recommended alternative to breastmilk is infant formula. Unfortunately, this substitute requires mixing with clean water, which is resource that is unfortunately inaccessible and unsanitary in many parts of the world. Formula contaminated by non-potable water is a significant risk factor for gastrointestinal infection and child death. In the 1970's, a large increase in infant diarrheal infection and death was the impetus that put breastfeeding on the public health agenda. Thirty years later, diarrheal diseases are still a tragic cause of childhood morbidity and mortality: every twenty seconds a child dies from a diarrheal disease. Even if clean water is available, during the manufacturing process “intrinsic” contamination of powdered infant formula from harmful bacteria such as *Enterobacter Sakazakii* (*Cronobacter*) is common. In a study by Muytjens et al, *Enterobacter Sakazakii* was found to be present in 14% of tins of powdered formula (1988), and in 2004 the Lancet reported that “environmental samples from eight out of nine food factories and from five out of 16 (sic) households contained *E. Sakazakii*,” (Khandai et al 2004). Beyond bacterial contamination, incorrect infant feeding practices are responsible for 10% of the global infant disease burden, and malnutrition contributes to 35% of child⁵ deaths (Norton 2009). Although these risks may seem irrelevant in developed countries where water resources are safe and quality health care is accessible, the *superiority* of breastmilk to substitutes is applicable in every region of the world.

Breastfeeding has myriad documented health benefits for both mother and child. For mothers, breastfeeding immediately after giving birth stimulates an intrauterine contraction that

⁵ “Child” in this paper will always refer to a person under five years of age.

helps the mother's body heal from pregnancy. It helps women lose weight and sleep well and is linked to a reduction in post partum-depression and anemia. Qualitatively, breastfeeding contributes positively to maternal mental health, including building self-esteem, responding to stress, and nurturing the mother-child bond. Later in life, having breastfed conveys reduced risk of osteoporosis and obesity as well as significantly less risk of breast cancer. Finally, breastfeeding is a proven contraceptive method known as the Lactational Amenorrhea Method. Preventing a pregnancy while exclusively breastfeeding, gives the mother's body time to transition from pregnancy and enables her to devote care and resources to her infant. As the center of the family, the well being of mothers also influences the health of other children. For example, the money saved by not purchasing infant formula can be used to purchase better food for the rest of the family. This is especially pertinent in the developing world where food costs can comprise up to 50% of the household budget (Interventions 91). Breastfeeding has life long impacts on *family* health; not just infant health (Hood 2009).

As previously mentioned, it is widely known that breastfeeding saves lives in infancy by reducing risk of diarrheal diseases. It also improves sleep and emotional attachment to the mother (Lourenco 2009). What may be less widely known is that having breastfed is a determinant for many long-term health outcomes. The WHO Child and Adolescent Health Department conducted two formal reviews of the evidence and found that adults who had breastfed had lower blood pressure, lower mean total cholesterol, and were less likely to develop type-two diabetes or to be considered overweight or obese. Even controlling for environmental stimulation, breastfed subjects were also found to perform better in intelligence tests and to experience a positive effect on school performance in late adolescence and early adulthood. One caveat of the review was that very few studies were examined from low or middle income

countries. However, the evidence was still strong enough that WHO definitively concluded that being breastfed does convey long term health benefits⁶. (Horta et al 2007). In addition, many studies have shown that children who breastfed are less at risk for developing allergies and eczema (Hood 2009).

Research on the health benefits of breastfeeding has also been conducted on national levels, such as an American study by the Agency for Health Quality and Research of the United States Government at Tufts University. This body reviewed all existing literature from developed countries and concluded that breastfeeding is protective against hospitalization for pneumonia and ear infection, reduces risk for Crohn's disease, and even produces a "nicer smelling" stool. Canadian researchers found breastfed children have better social skills, and a Russian study found that non-breastfed boys had lower sperm counts. Out of all of these health benefits, the most important, according to Dr. Mirriam Labbok from the Carolina Breastfeeding Institute, are the immunological factors that separate breastfeeding from any other form of infant nutrition. Both active and passive antibodies are present in breastmilk, including elements and living cells. Because children's immune systems do not mature until 2 or 3 years of age, these immunological factors are quintessential to child survival (Hood 2009). In addition, these factors change as the mother's health status changes. For example, if the mother were to contract a flu virus, her breastmilk would contain antibodies that would protect the infant from getting that virus. By overwhelming evidence, breastfeeding significantly contributes to the "state of complete physical, mental, and social well-being" for mothers and for children (1948).

⁶ Authors of the review noted that conclusions would be made more accurate by further studying dose-response relationships of the *duration* of breastfeeding

II. Is breastfeeding a global issue?

Global public health efforts for breastfeeding are an essential piece of the puzzle in achieving the United Nations Millennium Development Goals, including directly contributing to the goals of Gender Equality, Child Health, Maternal Health, End Poverty and Hunger, and Global Partnerships, and indirectly influencing the other goals of Universal Education, Combat HIV/AIDS, and Environmental Sustainability. As previously discussed, improved feeding practices will vastly improve health outcomes for both women and children and will dramatically reduce child morbidity and mortality. “Governments will be unsuccessful in their efforts to accelerate economic development in any significant long term sense until optimal child growth and development, especially through appropriate feeding practices, are ensured,” declares the Global Strategy. According to the UN Special Rapporteur on the Right to Food, poor nutrition in infancy leads to “a vicious cycle of poverty and underdevelopment and can severely affect the capacity of a country to develop.” Malnutrition hampers physical and mental development which retards long term development and reduces productivity in adulthood (Ziegler 2006). Breastfeeding creates healthy children that grow into healthy and productive members of global society. In order to achieve higher global rates of breastfeeding, women must be empowered to make informed decisions about the best infant feeding practices for their individual context, which requires gender equality in education and health care services.

Human rights principles are another foundation for breastfeeding as a global public health campaign. “Woman and children are subjects of human rights- not objects of charity,” declares the World Alliance for Breastfeeding Action in their brochure *Every Woman’s Right to Breastfeed*. The Global Strategy is “based on respect, protection, facilitation, and fulfillment of

accepted human rights principles,” (2003). Completely independent of a child’s rights, breastfeeding directly relates to the human rights of women. Because breastfeeding reduces the risk of certain illnesses in women, it is part of their right to the highest attainable standard of health. Women also have the right to information and empowerment to make their own decisions on infant feeding and to be free from pressure of commercial enterprises such as breastmilk substitute manufacturers. The Convention of Economic, Social and Cultural Rights and the Convention on the Elimination of all Forms of Discrimination against Women are foundations for the right of women to make their own informed optimal feeding decisions.

In addition, breastfeeding aligns with the special rights attributed to children in the Convention on the Rights of the Child. This document requires that member states ensure “the right of the child to the enjoyment of the highest attainable standard of health,” and take measures to “diminish infant and child mortality” and to “combat disease and malnutrition”. Breastfeeding is even explicitly stated in the convention: member states have the responsibility to enable parents and society to be, “informed, have access to education and are supported in the use of basic knowledge of child health and nutrition, the advantages of breastfeeding, hygiene and environmental sanitation,” (Article 24). Another intersection of breastfeeding and human rights is the idea of the Right to Food: “to have regular, permanent and unobstructed access... to quantitatively and qualitatively adequate and sufficient food corresponding to the cultural traditions... and which ensures a physical and mental, individual and collective, fulfilling and dignified life,” (Ziegler 2006). Breastmilk, and good infant feeding practices in general, ensure the right of children to adequate food for successful development. Governments who are party to these numerous human rights agreements are charged with respecting and fulfilling these rights for their citizens, especially through legislation. By constructing breastfeeding as a global

challenge essential to the Millennium Development Goals and grounded in human rights, the campaign can acquire valuable political and financial support.

Part II: Global Public Health in Practice

As stated in the introduction, I consider global public health to be the synthesis of individual and community actions into a broad framework that implicates international, national, and local actors in order to achieve global goals for improved health of human populations. Breastfeeding has been clearly demonstrated to be a health issue as well as a global issue. The Global Strategy provides the broad framework that serves as a model of the operation of global public health.

I. Global Level

As described in the Global Strategy, the global level of responsibility for the promotion, protection, and support of breastfeeding includes researching, setting norms and standards, publishing recommendations, coordinating assistance to national ministries of health, and choosing and evaluating indicators. For example, WHO conducted the first global study of breastfeeding rates in the 1970's to assess the situation and the need for action (Carballo 2009). In the breastfeeding campaign, WHO and UNICEF are the two most important global actors. Through my interactive research process, I was able to interview two WHO officials: Rosa Constanza Vallenias del Villar in the Child and Adolescent Health Department and Maria del Carmen Cassanovas in Department of Nutrition for Health and Development. These interviews concretely applied the Global Strategy and provided insight into the importance of a centralized framework. One realization I had was that the global level tends to be removed from the local

country level. As WHO is charged with making recommendations broad enough for global applicability, headquarters cannot become the experts in every local situation. This solidified my understanding of the need for communication in order to transfer knowledge from community action into global practice.

My first interaction with WHO and breastfeeding was an interview with Rosa Constanza Vallenias del Villar at the Child and Adolescent Health Department of WHO headquarters in Geneva. She had just returned from a tour of assistance to country-level ministries of health for implementation of the Global Strategy. Villar was constructive in my understanding of the layers of influence that go into women's decisions not to breastfeed, which is not exactly relevant to the global level of public health action in the campaign. However, I also gained significant insight through the discussion on the ways in which funding limits the action that WHO can take. For example, when I asked why a global list of Baby Friendly Hospitals is not published, and whether doing so could inspire competition among hospitals or nations, she replied that this type of global monitoring is not cost effective for WHO and that they leave it up to individual member states to monitor. Another example of financial analysis is that WHO must always prioritize help to those who need assistance the most. It does not make sense to put money into developed countries for projects that will have small marginal benefit when the money could have a massive impact if used in a project in developing countries. However, the need for breastfeeding action does not always fall along development lines, as Villar explained: the differences in breastfeeding rates between nations are more dependent on their *ideologies*. For example, Villar described how changing political climates in Nordic countries have correlated exactly with breastfeeding rates: when governments in that region become more conservative and contribute fewer resources to maternal health promotion, breastfeeding rates go

down. In contrast, some African countries do not need increased global action for breastfeeding because it is already the ideological and cultural *norm*. To address these differences in development and in ideologies, Villar depicted WHO's greatest challenge as being to create standards that are generic enough for application to all nations. It was evident through our interview that Villar strongly believes in a horizontal application of the Global Strategy to utilize all actors and all methods (2009).

My second WHO interview was with Maria del Carmen Cassanovas in the Nutrition for Health and Development department at headquarters in Geneva. Cassanovas began her career in health as a pediatrician in Bolivia where she became involved in an infant diarrheal epidemic. Through our interview I gained an idea of the internally pluralistic approach WHO takes to gather information and set standards. For example, breastfeeding action at WHO occurs in the Department of Child and Adolescent Health, the Department of Nutrition for Development and Health, the Department for Making Pregnancy Safer, the Department of Reproductive Health and Research, the HIV and Infant Feeding Framework, and the Integrated Management of Childhood Illness strategy, as well as through WHO's participation in the Infant Feeding in Emergencies Core Group⁷. Although breastfeeding work occurs in all of these WHO bodies, each works on different projects. One example of the specificity of breastfeeding projects to individual departments is the Kangaroo Care method⁸, formulated by the Department of Reproductive Health and Research. Cassanovas acknowledged that the pieces of the breastfeeding puzzle may seem scattered, but that WHO does synthesize them in the cadre of the Global Strategy. She

⁷ An inter-agency effort coordinated by the Emergency Nutrition Network.

⁸ A technique of increasing skin-to-skin contact by a mother holding her infant against her body for hours each day. It is especially effective for improving breastfeeding and helping prematurely born babies to develop.

stressed the importance of communication between and among departments, saying, “We try to have all of the documents say the same thing.” Then, armed with unified messages, WHO gives technical assistance to ministries of health to implement their projects on the country level.

Another example of a department-specific task is the Baby Friendly Hospital Initiative (BFHI): a project of the Department of Nutrition for Health and Development. This collaborative initiative between WHO and UNICEF was the direct action to come out of the 1990 *Innocenti Declaration on the Promotion, Protection, and Support of Breastfeeding*. The first BFHI (1991) included a training package, an external assessment tool, and an 18 hour training course. The two biggest problems with the original design were the deterioration of care practices in hospitals after they acquired the BFHI label, and the perception that it was an “outside effort” being projected upon them instead of coming from within. Therefore, BFHI suffered from a lack of quality and a lack of ownership. The initiative has just been updated his year to better align with the Global Strategy. To address the ownership issue, BFHI now delegates the individual responsibilities of each actor within a hospital and has developed an internal assessment and monitoring tool. In this way, it is like a microcosm of the Global Strategy for the world of health care services. To address quality, WHO now recommends a certification expiration date of three years. Other changes include an extensively informative introduction chapter, a course for “decision makers”, an extension of the training course to 20 hours with four practical hours, and an optional HIV module. The newest concept in BFHI is the addition of “mother friendly” certification that encourages practices such as allowing mothers to choose their position for giving birth. Also, all of the materials have been translated into Spanish for the official BFHI launch in South America. Another change from previous BFHI operations is the evaluation method. Previously, the evaluative indicator was the number of hospitals who

were certified. Now, the indicators are the proportion of certified BFHI health facilities and the proportion of births that occur in these hospitals as opposed to non-affiliated hospitals. For example, in Macedonia only a small proportion of total health facilities are baby friendly, but 80% of all deliveries are performed there. Cassanovas explained that a significant barrier to the effectiveness of BFHI is that in many parts of the world women give birth at *home*, so hospital-level interventions have little to no effect (2009).

Through my interviews with WHO headquarters in Geneva, I came to understand the operations of the global level of global public health in the breastfeeding campaign. Without this centralized body to collect research, mobilize actors, and formulate recommendations, the Global Strategy could not have been written; nor could it have been implemented without the individual department projects and their implementation on the country level.

II. International Level

I classify “international” action in global public health as that which includes actors who work with multiple countries but are not responsible for setting the health agenda for the entire planet. The Global Strategy charges international actors such as non-governmental organizations (NGO’s) with providing information, conducting community based interventions within the health care system, creating communities that enable optimal feeding, and working for adoption of and adherence to the *International Code of Marketing of Breastmilk Substitutes*. Through my research and field interviews I also identify the responsibility of international actors to lobby governments for maternity protection, be a watchdog for irresponsible commercial marketing of breastmilk substitutes, provide humanitarian aid and assistance, and build local health service capacity.

My most direct interaction on the international level was with the International Baby Food Action Network (IBFAN), a united organization of public interest groups that aims to reduce childhood morbidity and mortality through promoting, protecting, and supporting breastfeeding. IBFAN is most celebrated for championing the *International Code of Marketing of Breastmilk Substitutes* as they work to assist governments in implementing the code and to monitor industry violations of the code. My first interaction with IBFAN was at a conference celebrating World Breastfeeding Week 2009, where I attended a lecture by Rebecca Norton entitled “Breastfeeding: A Vital Emergency Response”. During emergencies, children experience higher rates of morbidity and mortality than any other age group. This is particularly exacerbated in refugee populations where malnutrition and communicable diseases become chronic problems. Norton’s thesis was that in emergencies, humanitarian aid efforts should pay attention to safeguarding breastfeeding. Emergency aid distribution is often unregulated and disorganized. When humanitarian donations include powdered milk, breastfeeding, and consequently infant survival, is in particular danger. The *International Code of Marketing of Breastmilk Substitutes* is an essential tool for protecting breastfeeding in these situations, as it prohibits the free distribution of breastmilk substitutes. Through Norton’s presentation I gathered that IBFAN asserts itself to raising awareness in the humanitarian community about the need for appropriate aid and the danger of widely distributing formula (Norton 2009). This experience manifested the role of international actors in education, awareness and advocacy for breastfeeding.

I later met with Norton again at the Regional IBFAN Coordination Office for Europe in Geneva, known as IBFAN-GIFA. Uniquely positioned just down the street from the United Nations (UN) and WHO, IBFAN-GIFA is also the international liaison office for the entirety of

the IBFAN network of more than 200 groups in about 100 countries. In addition, IBFAN-GIFA currently hosts regional coordination of the IBFAN Arab World. Combined with thirty years of dedicated experience, their strategic position in Geneva has enabled IBFAN-GIFA to successfully establish strong links with many key international agencies such as the UN, WHO, UNICEF the International Labor Organization, The UN Office of the High Commissioner for Human Rights and its Committee on the Rights of the Child, and many other international NGO's and agencies. By remaining relatively small and yet connected to a much broader network, the IBFAN-GIFA office is uniquely enabled to malleably redirect their attention to the most pressing events regarding the protection, promotion and support of breastfeeding.

One of IBFAN's main activities lies in advocating for keeping health free of conflicts of interests. They agree that in matters of health, industry should be communicated with; but argue that industry should not take part in public health policy decision making. For breastfeeding, this directly relates to preventing the infant formula industry and enterprises such as Nestle from interfering in health care services or influencing mothers' infant feeding choices. Norton recounted one of IBFAN's successes in fighting against undue industry influence: when the Global Alliance for Improved Nutrition (GAIN) elected Danone to their board of directors, IBFAN campaigned against this conflict of interest until Danone stepped down from the position. Another example of IBFAN being a watchdog for conflict of interest was a letter-writing campaign that protested a European conference on obesity that was actually funded by an infant formula company. IBFAN also lobbies governments to incorporate the *International Code of Marketing of Breastmilk Substitutes* into national legislation. IBFAN-GIFA does not only interact with the international community; they work locally in Geneva in hosting a monthly breastfeeding support group for mothers in collaboration with La Leche League Switzerland, and

participate in an obesity prevention health initiative to ensure that the protection, promotion, and support of breastfeeding are incorporated into Geneva's obesity prevention public health plan. As an example of an international actor in the global breastfeeding campaign, IBFAN clearly demonstrates the roles of building and participating in an international network, gathering and providing information, lobbying, and being an industry watchdog (Norton 2009).

During my interview with Norton, I had the opportunity to also interview Alison Linnecar, the international coordinator for IBFAN-GIFA. She explained IBFAN's newest campaign: the "global Breastfeeding Initiative for Child Survival" (gBICS). This strategy employs the globally-focused approach similar to the Millennium Development Goals to identify new donors. The campaign is conceptualized into a house that is built on a foundation of human rights and has three breastfeeding "stories": one for each tenant of the Innocenti Declaration and Global Strategy: the protection, promotion, and support of breastfeeding. The roof of the house represents national programs and policies. Allison depicted that while IBFAN has built networks with powerful agencies and individuals and while GBICS presents a persuasive global message, ultimately IBFAN needs financial resources in order to implement their work. Alison's illustration of using global values to gain financial support on an international scale exemplifies the role of international actors in global public health (Linnecar 2009).

Another vital responsibility of the international level of global public health is working directly with health services and communities to effect change. For example, Cassanovas had formerly worked for Wellstart International, a non-profit dedicated to maternal and child nutrition. As a pediatrician and a professor of public health, Cassanovas spent her time at Wellstart on a project to increase breastfeeding rates among women in rural Egyptian villages.

Many women in the project area believed that their babies needed other nourishment besides breastmilk, especially water, which holds significant cultural importance in Egypt. Local pediatricians were also advising mothers that their babies would not survive without water. Cassanovas' team worked to build local capacity by training health professionals in Cairo and working with professors of pediatrics to insert breastfeeding instruction into their curricula. Cassanovas realized that women in these villages typically only went to the hospital for their *first* birth, which meant that the health sector was limited as an entry point for changing feeding practices. Therefore, the project shifted to a community outreach initiative that trained local people to work in situ to teach best practices for infant feeding. This demonstrates the importance of constantly evaluating active global health projects for their practical effectiveness, and redesigning the projects where necessary. Another challenge Wellstart encountered in Egypt was the strong societal norm of trusting only *physicians* with health matters. Because the Muslim religion restricted the movement of women in the village, Cassanovas' team had been using teenage girls to conduct home visits. This tactic challenged the project's ethos as the workers were not physicians, and had also never experienced motherhood themselves. Despite these challenges, the mothers eventually began listening, seeing the results, and communicating best practices with each other and even with fathers. By the end of the project, the exclusive breastfeeding rate at six months had been raised from 7-10% to 90% (Cassanovas 2009). In this example, careful monitoring of the project did not call for redesign.

The final example of international level action for breastfeeding that I interacted with is Action Contre La Faim⁹ (ACF), an NGO that works to combat malnutrition internationally. I

⁹ Action Against Hunger

attended an ACF lecture in Paris where two staff members presented their projects for humanitarian aid and malnutrition. Although ACF is concerned with nutrition for people of all ages, infants under six months of age comprise 25% of their admitted malnutrition cases. Due to underdeveloped infrastructure and poverty in many ACF project areas, women are particularly at risk for negative consequences of non-optimal feeding practices. For example, war in Liberia has resulted in the loss of an entire generation of educated health professionals and the loss of knowledge of mothering practices. In the capital city of Monrovia, unsafe water poses a risk to mothers using infant formula. In Liberia, ACF fills its role as an international actor for global public health through their health centers that teach mothers best practices for caring for their vulnerable babies and about child development (Grosjean 2008). Similar to Wellstart's project in Egypt, ACF also trains Liberian mothers as community health workers to help and educate each other (Impliquer 2009). Other ACF programs work to change dangerous culturally received ideas, such as the belief in Burma that eating too much during pregnancy will cause an overly large infant (Germaey 2007), or the idea in Afghanistan that suffering of violence, grief, or exhaustion causes the disappearance of milk. In reality, women's bodies continue to produce breastmilk throughout these times of stress as long as the babies continue suckling. ACF programs support mothers to continue breastfeeding through these difficulties (Malnutrition 2009). In Burundi, women who are not able to breastfeed for the culturally-prescribed 24 months are stigmatized as "mauvaises mères"¹⁰. Often, HIV is the reason behind their decision not to breastfeed. In this situation, ACF intervened to reduce the risk of HIV transmission by encouraging weaning after six months and combated the associated stigma by implementing counselors and support groups for HIV positive mothers (Soutenir 2007). Severely

¹⁰ "Bad mothers"

malnourished infants are obviously not successfully breastfeeding, and are often too weak to suckle at all. In programs for these babies, ACF's first goal is to save the child, and then to reestablish exclusive breastfeeding. To do this, they feed therapeutic milk to infants through a tube while having the infants suckle on their mother's breast. This simultaneously nourishes the child while re-stimulating the mother's breastmilk production (Malnutrition 2009). Through attending the lecture in Paris and my reading of ACF's published materials I gained a greater understanding of the role that NGO's play in implementing localized projects in multiple countries. By choosing to work in select regions, international actors such as IBFAN and ACF can achieve greater contextual expertise in local regions while maintaining a wide angle view of the global level. Then, they are able to take a model of local health action from one place and adapt it to other locations where they have gathered local expertise. International-level actors play an essential role in fulfilling aspects of the Global Challenge that require a combination of localized understanding and scaled-up application.

III. National Level

Out of all the levels of action for the protection, promotion and support of breastfeeding, the Global Strategy places the bulk of responsibility on governments, stating that "success in implementing the global strategy rests, first and foremost, on achieving political commitment at the highest level," (2003). The primary obligation of governments as directed in the Global Strategy is to formulate a national policy on infant and young child feeding. The Global Strategy also charges governments to collect and evaluate data on their national situation. Finally, governments are told to create a clear action plan with defined goals, allocated responsibilities, and measurable outcomes for evaluating impact. In my experience in Geneva, governments are

also responsible for standardizing care in their health facilities and insurance policies to assure proper provision of and access to breastfeeding information and support. Surprisingly, one area that the Global Strategy does not mandate to governments under their “Obligations and Responsibilities” section is the adoption of the International Labor Organization (ILO) *Maternity Protection Convention* (C138) to enable working women to continue breastfeeding. Maternity protection is “the support women need in order to satisfactorily harmonize their productive and reproductive lives,” and includes protections such as maternity leave and breastfeeding breaks (Mulford 2002). It is founded in the idea that governments and employers should respect “the legal and social recognition of the contribution that women make by having babies,” according to the Maternity Protection Coalition, (2008). The ILO Convention C138 was created in 2000- three years before the publication of the Global Strategy. It states that “social reproduction cannot just be an individual responsibility of the parents...it is the collective responsibility of the state, employers and society at large,” (Maternity 2008). In my interactions with doctors and midwives in Geneva it was repeatedly stressed that one of the most prominent reasons why women stop breastfeeding before the WHO recommended six months is the infeasibility of continuing to do so while working outside the home. Without maternity protection, breastfeeding becomes logistically impossible when the workday begins. Because governments are the bodies that have the power to ratify C138 and to pass aligning national maternity protection legislation, the Global Strategy has made a gross oversight by not delineating it in the specific responsibilities delegated to national governments.

The first version of the Maternity Protection Convention published in 1919 entitled women to paid maternity leave, medical care, job protection, and breastfeeding breaks at work (Maternity Protection 2008). The updated Convention 183 is more specific: it calls for a

minimum of 14 weeks of maternity leave at 2/3 salary, the ability to leave work for medical care, protection against occupational hazards, job protection and non-discrimination, at least one paid breastfeeding break each day, breastfeeding/pumping facilities in the work place, and expansion to include women who work in the informal sector. As the Maternity Protection Coalition explains, “women find themselves pulled in two directions between reproduction (childbearing and breastfeeding) and production (work, paid and non-paid). Both of these are important aspects of women’s lives and they should not have to choose,” (2008). By 2008, however, only 13 countries had ratified C138. To increase the support for this convention, the Global Strategy should have articulated its ratification as a responsibility delegated to governments.

To date, Switzerland has not ratified the ILO convention. Despite this, in my studies in Geneva I learned that Switzerland does indeed have extensive laws to protect breastfeeding. According to “la Loi sur le Travail”¹¹ (LTr), it is forbidden for a woman to work during the eight weeks immediately following her giving birth (Art 35a). A woman has the right to fourteen weeks (98 days) of paid leave at 80% of her salary and the option to take two additional weeks without pay. Even though the woman is not forbidden to work after the conclusion of the mandatory eight weeks, she must give her concise agreement to her employer to recommence. If the mother is breastfeeding, an employer may not demand that she return to work even after sixteen weeks. Employers also may not dismiss women during pregnancy or the sixteen weeks that follow, unless it demonstrated to be for a reason unrelated to their maternity status. Unfortunately, these benefits do not apply to mothers who had not worked in the job for five months before giving birth, or to mothers who adopt children. The Swiss LTr laws even apply to

¹¹ Labor law.

women who are not receiving formal salary due to unemployment, accident, or employment by their spouse: these women may receive fourteen weeks of pay through the “caisse des allocations pour perte de gain”¹². During the first year of the baby’s life, Swiss working mothers are paid for the time they spend on breastfeeding breaks during the workday, but only if they do so in situ. If they leave the workplace to breastfeed, their time is not paid. Therefore, the employer is required to put an appropriate space for breastfeeding at mothers’ disposition (i.e. not a bathroom). Finally, health insurance in Switzerland covers a whole range of services for mothers, including the cost of: medical care of pregnancy (by sage-femme¹³ or doctor), birth at a hospital or “maison de naissance”¹⁴ or in the home, ten days of post-partum home-care by a sage-femme, maternal care for six weeks after giving birth, three lactation consultations, and a 100 franc contribution to a breastfeeding course (Travail.Suisse).

Clearly, Swiss legislation concerning maternal protection is extensive in its protection of breastfeeding. However, all of these protections are for women who are employed in the formal sector. When one reads that the employer must provide an appropriate place for breastfeeding or expressing milk, one imagines a woman working in an office building and going down the hall to a private lactation room. What about women working informally, such as domestic workers or street vendors? Also, Geneva is home to many migrants and asylum seekers who may have varying degrees of legal status; without documentation, how can these informal workers be empowered to demand their lawful entitlement to maternity protection from employers?

¹² Allowances for loss of earnings.

¹³ Midwife- literally translates to “wise woman”. They have university and specialized training and are considered as full health professionals.

¹⁴ “Birth house”

Outside of Switzerland, the global numbers of women working are on the rise. Women in informal or unrecognized work, such as agriculture, sweat shops, or child care are at particular risk of being disabled to breastfeed. In many places, the time demands of women in caring for their family and maintaining a home's survival are just as limiting (or more) than a "full time job" of a working woman in Switzerland. These tasks are often unaccounted for in formal policy, if a nation even has any maternity protection laws. In ACF's report *Women and Hunger*, a Nepalese woman explains that the final months of breastfeeding are more difficult because of competing demands on her time due to high workloads in the peak agricultural seasons. According to ACF, women are the pillars of family health and nutrition, yet they often depend on men to turn their activities into formal revenue. ACF terms this challenge as "triple days": the responsibility of mothers to be all at once food providers, care takers, and wives. As ACF explains, "to understand communities... one must not only look at the resources available to a household, but also question the time assigned to various tasks in a woman's day," (Women 2006). Where "women's work" in the home takes up a significant amount of mother's time during the day, breastfeeding may also be in danger. On that note, the World Alliance for Breastfeeding Action states that "Every mother is a working woman," for the inherent responsibilities of mothering. It is the government's role to formally acknowledge reproduction and all of its entailed activities, including child care and home tasks, as "socially meaningful and productive work," (Women 1993). Although the Swiss laws are progressive in comparison to many other countries, they lack protection for women not working in the formal sector.

My experiences with the government level of action, though they were less interactive than with the other levels of global public health, were invaluable in my concept of the responsibility of governments in the cadre of the global public health campaign for

breastfeeding. It is logical that the Global Strategy attributes most of the responsibility to protect, promote, and support breastfeeding to governments as WHO coordinates global action through direct interactions with ministries of health: *government* bodies. In my opinion, the Global Strategy should have taken their charges to government one step further by imploring them to pass inclusive maternity legislation that would protect all women in all types of work.

IV. Local Level

The local level of the global public health action for breastfeeding includes charitable and religious organizations, consumer organizations, support groups and clubs, child care, and health professional bodies. Geneva presented myriad opportunities to immerse myself in community action for breastfeeding through health professionals, grassroots campaigns, and support groups. According to the Global Strategy, health services are charged with training health workers, giving skilled support for breastfeeding, promoting and participating in BFHI, and referring mothers to support groups. Through my interactive research in Geneva I had the opportunity to interview three sages-femmes, Heike Emery, Martine Fuhrer and Lucia Floris, as well as to attend a weekly “course de l’allaitement”¹⁵ with a sage-femme.

As a local-level actor, the Arcade Sages-femmes in Geneva is a truly unique democratic organization of 46 sages-femmes in Geneva that is subsidized by the state. In Switzerland, sages-femmes can either work independently or be employed by a hospital. The Arcade lies between the two: independent member sages-femmes dedicate at least one day each month to working at the Arcade where they offer services and courses to mothers. The organization of these services would not be possible if each sages-femme worked alone. Heike Emery explained

¹⁵ Breastfeeding support group.

the logistical operation of the Arcade, whose goals are to ensure home care for mothers, offer and promote services of sages-femmes over those of other health bodies, and to offer support to all women free of charge. Each day, hospitals and clinics in Geneva fax a record of each new birth to the Arcade, who then arranges a sage-femme home visit for the mother on the following day. Mothers can have continued visits from sages-femmes for ten days after birth, and then three additional visits for breastfeeding assistance. Emery's insight on the uniqueness of these services was that they act as an equalizer: all women are entitled to the same care, and the usual 10% co-pay for medical services in Switzerland does not exist for these sage-femme services (regardless of insurance). In addition, the Arcade offers space for mothers to seek and share information. For example, their welcome room has a wealth of fliers and booklets, a library of books on pregnancy and parenting, and an "espace allaiter"¹⁶ where mothers can stop in to care for, change, and feed their babies. The Arcade also has an office where a midwife is always at the phone to answer call-in questions. Finally, the Arcade has a large room for courses, support groups, and activities. This is where I attended the breastfeeding course, to which five mothers attended with their infants. During the one hour session, Martine Fuhrer listened to mothers' concerns, responded to their questions and discussed possible remedies or strategies to ameliorate the problem. The most remarkable part about the group was that for each voiced concern, the other mothers would chip in to give advice or tell a personal story about how they approached a similar problem. There was a tangible atmosphere of support and reassurance; I could clearly see that the mothers were benefitting from voicing their worries together. Interestingly, Fuhrer did not do any physical or hands-on support or advising of the mothers (Emery, Fuhrer 2009).

¹⁶ "Breastfeeding space".

I also interviewed Lucia Floris, another sage-femme affiliated with the Arcade who works at the University Hospital of Geneva. As part of her final project to attain a master's degree in public health, Floris was piloting a project advocating for the public acceptance of breastfeeding in Geneva through the creation of 100 designated public "espaces allaitement". These included public spaces such as restaurants, stores, and libraries that volunteered to create a private breastfeeding space for mother customers' use. To give her cause legitimacy and to ease the financial burden, she created her own registered association: the Association Allaitement dans la Cité¹⁷. Floris described the evolution of her interest in public acceptance of breastfeeding through her fascination with the field of "social marketing": a technique that uses marketing and advertising tools to effect social behavioral change. A few weeks after our interview I was invited to attend the grand opening of "Espaces Allaitement" at a restaurant in Geneva; one of the participating businesses. The event gathered midwives, doctors, nurses, colleagues, friends, and many mothers and their babies. Floris gave a speech about her campaign, a sage-femme spoke about the need to create an enabling culture in Geneva, and a female politician spoke about how she had approved the public libraries in Geneva to become Espaces Allaiter. The meeting was valuable to me as I saw many familiar faces, including people I had interviewed and met at the Arcade. There was an overall atmosphere of mobilization and of pride in how Lucia's vision for supporting breastfeeding in Geneva had become a reality. Floris' project illustrated the collaborative nature of the local level of global public health, as different individuals from health, societal, and commercial bodies had assembled around the cause (Floris 2009).

¹⁷ The Association of Breastfeeding in the City

Also at the grand opening event I formally met Christine Soulier, a sage-femme who I had been in contact with for her involvement with the Geneva chapter of the International Board of Certified Lactation Consultants (IBCLC), a professional organization. The following week I was able to attend the group's meeting at the Geneva University Hospital. There, I observed and listened to their discussion about their idea to create a website for their local chapter of the organization in order to inform women in Geneva of the availability of their consultation services and to provide an online forum where mothers could post questions and responses about breastfeeding. This meeting illustrated local-level grassroots action to support mothers.

Another local interaction in Geneva included an interview with Dr. Ana P. Lourenco, a gynecologist who had started breastfeeding support groups at the Geneva University Hospital and had created programs to teach young school children about breastfeeding. Lourenco explained that she was working on a proposal to the school board of Geneva to include breastfeeding information into the health and nutrition curricula of public schools (Lourenco 2009). Finally, I interviewed Séverine Emery Martin, a nurse for Service Santé Jeunesse, the health body for schools and nurseries in Geneva. Martin had initiated a program modeled after BFHI to label and publicize nurseries and day care facilities that enabled mothers to continue breastfeeding their babies, either directly or through stored expressed milk (Martin 2009). All of these interactions in Geneva were invaluable as concrete manifestations of the local level action that is the foundation of the larger framework of the Global Strategy.

The most enriching local level interaction of my research was a comparative study of breastfeeding support groups in metropolitan Geneva with those in rural Italy by attending a La Leche League support group meeting in Zagarolo, Italy. The meeting was led by Martine Gabos,

a La Leche League “animatrice”¹⁸ at a farm house in Zagarolo. Gabos described to me how as a young mother, she felt she had nowhere to turn for breastfeeding help and therefore had begun to formula feed each time she ran into difficulty breastfeeding. After this cycle repeated itself for all three of her children, Gabos decided to do something about it and to help other mothers who were feeling powerless like she had felt. Because the meeting was held in a home, it had a much more family-oriented feel: present were four mothers and their infants, one father, one of the mother’s brother, a friend of Gabos, and a few young children. Similar to the Geneva meeting, the mothers all discussed their problems and successes. Different, however, was Gabos’ way of responding. Whereas in Geneva we had all been seated and kept to our personal space, in Italy Gabos moved about the room with a hands-on approach. She gave practical advice and showed mothers different techniques such as how to massage around the nipple to stimulate milk “letdown” and how to use a complementary device to re-train babies back to breastfeeding after they had begun bottle feeding. Much of the conversation revolved around their common experiences of malpractice in the hospital. All of the women told stories of health professionals who dissuaded them to breastfeed, such as nurses who threw away their colostrum¹⁹ or nurses who not only had recommended a specific brand of powdered milk but had also told mothers that they did not have sufficient breastmilk to nourish their baby. By discussing these experiences, the women gained a clear sense of solidarity and reassurance against their fears (Gabos 2009).

I was shocked at what I heard at the Zagarolo La Leche League meeting concerning the blatant violations of the *International Code of Marketing of Breastmilk Substitutes*, especially

¹⁸ Organizer/group leader.

¹⁹ The first milk produced immediately after birth. It is particularly high in nutritional and anti-infective properties.

because I had thought that Italy's health care system would surely be in alignment with global standards seeing as it is a prosperous European nation. Gabos stressed however that the information a mother receives in Italy depends on the individual nurse/ doctor and clinic. In addition, in listening to these women talk about their problems and to Gabos' advice, I gained insight that breastfeeding is *not* a simple task: there are many details to keep track of and many common challenges, fears, and misunderstandings. As Gabos experienced, when something goes wrong with breastfeeding it is essential that a mother have timely access to help and information or she will have no choice but to begin formula feeding. In places like Zagarolo where the health sector clearly is not providing this care, support groups like La Leche League are vital to breastfeeding protection, promotion and support.

My interactions with the local level of health action for global breastfeeding proved to me that it is truly the community scale that affords global public health its full functionality. All of the global, international, and national action orchestrated in the Global Strategy can have no impact if individual women are left without care. Through my experience in Geneva and in Italy, I have come to understand how breastfeeding illuminates the absolute essentiality of community action to the achievement of global change.

V. Conclusion

Although *Global Strategy for Infant and Young Child Feeding* was released in 2003, it must be recognized that action in global health and public health for the protection, promotion and support of breastfeeding was going on long before it was written. However, it is only within the centralized structure of the Global Strategy that efforts have been *organized* and have achieved the scale of global public health. As I define it, Global public health is the organization of

individual care and community actions into an interdisciplinary, global population-level framework with specific responsibilities to global, international, national, and local bodies in order to effect positive and sustainable change in human health. The global level researches, chooses and evaluates indicators, sets norms and standards, publishes recommendations, and coordinates assistance to national ministries of health. The international level works in multiple countries to disseminate information, conduct community-based interventions within the health care system, teach best health care practices and behavior, advocate for and monitor adoption of global standards, lobby governments, be a watchdog for industry and conflict of interest, provide humanitarian aid, and build local health capacity and infrastructure. The national level acting through governments formulates national policy, collects and monitors data on their national situation, creates clear action plans with defined goals, allocated responsibilities, and measurable outcomes for evaluating impact, and standardizes access to and quality of care in health facilities and insurance policies. The local level mobilizes grassroots action in communities through groups such as charitable and religious organizations, consumer organizations, and clubs. Overall, these four levels work together to carry out an overarching global strategy for each global public health issue.

For breastfeeding, the framework is the Global Strategy for the protection, promotion and support of breastfeeding. Synthesizing local actions such as breastfeeding support groups, national actions such as legislators working to write maternity protection into law, international actions such as NGO's training health personnel in developing countries, and global actions such as WHO researching new evidence to update their recommendations, for example, breastfeeding is a remarkable incarnation of global public health. Through my interactive research in Geneva I discovered examples of the operations of each of these four levels of action and responsibility,

thereby forming a comprehensive image of how separate actions can be mobilized and assembled into a global framework to effect the greatest possible change for human health.

Part III: The Ethics of Choice

Throughout my research, interviews, observations, and experiences in the field of breastfeeding, several ethical questions continually presented themselves in the back of my mind. In the application of the Global Strategy to my definition of global public health these ethical questions could not remain silent. As with any other health issue, breastfeeding implicates contradictions between individual freedoms and lifestyle choices and mandated behaviors for the good of global society as a whole. If promotion, protection and support of breastfeeding are to succeed as a global public health campaign the ethics of choice in health must be addressed.

I. HIV: balancing risks

The recommendations for HIV and breastfeeding dance a delicate line of risk analysis between protecting infants from contracting diarrheal diseases and preventing them from contracting HIV. The mechanism of HIV transmission from mother to child through breastmilk is not definitively understood, but it is known that if no specific interventions are made a HIV positive mother has a 5-20% chance of transmitting the virus to her infant by way of breastfeeding. In Geneva I had the opportunity to meet with Dr. Manuel Carballo, an epidemiologist who is currently the executive director of the International Center for Migration and Health. Carballo claims that he was largely responsible for writing the original WHO guidelines for infant feeding and HIV transmission. In his research in the 1980's he found that

the risk of transmission through breastfeeding if no precautions were taken was 33%. Even today, Carballo is very uneasy about this balance of risk. Carballo recounted that in 1989 a team at WHO developed separate recommendations for developing countries and developed countries. For developed countries, HIV positive women were recommended to not breastfeed to eliminate risk of transmission, as administering breastmilk substitutes in these setting was deemed safe and in sufficient supply. In the developing world, women were recommended to breastfeed exclusively for six months unless they were HIV positive and were then recommended to A) look for a wet nurse, B) if possible and supervised, feed by formula, or finally C) breastfeed exclusively until they could find one of these options. If the infant contracted HIV, the recommendation then became to breastfeed exclusively for six months as there was no longer any disincentive. Carballo expressed that he was uneasy with these recommendations and found them to be somewhat hypocritical (2009).

In 2009, the updated recommendations for HIV positive women are to exclusively breastfeed for the first six months *unless* a breastmilk substitute is Acceptable, Feasible, Affordable, Sustainable and Safe (AFASS). This means that the replacement feeding must be free of stigma or discrimination, the mother must have sufficient time and knowledge of proper feeding practices, families must be able to afford the substitute for the entirety of the six months and be positive that the supplying source will not run out or become inaccessible, and that the replacement food must be hygienically prepared with clean water fed by cup; not by bottle or teat. Only when formula feeding satisfies all five AFASS requirements are mothers recommended to avoid breastfeeding; without them the anti-infective and nutritious benefits of breastmilk take precedence. In addition, the current recommendations stress the need for mothers to know their HIV status, to have access to counseling, and to receive follow-up testing

and care. Where possible, HIV positive mothers are encouraged feed their babies breastmilk from a wet nurse or a human milk bank (Lhotska 2008).

HIV and infant feeding presents a fragile ethical balance for WHO in formulating global recommendations. If infant formula is not acceptable, feasible, affordable, sustainable, and safe, WHO is clear that a woman should breastfeed exclusively. Within this recommendation mothers who are unable to fulfill AFASS are directed to swallow the risk of HIV transmission and to expose their infants to the deadly virus that they themselves are battling. Which is greater, the risk of death due to improper use of breastmilk substitutes, or the risk of HIV transmission? In terms of mental health the ramifications of the guilt of transmitting HIV to your child or of causing illness or death with unsafe substitutes are yet to be studied. This is not an easy decision to ask of HIV positive mothers, especially considering their own compromised health status.

In addition, WHO must navigate inequalities among nations in their abilities to provide AFASS breastmilk substitutes. The *International Code of the Marketing of Breastmilk Substitutes* prohibits the free distribution of infant formula to governments, organizations, or health care services. Formula can be given to mothers free of charge, but it must be bought through the market system and not donated from formula companies. This presents a challenge to HIV positive mothers in difficult circumstances. If your government does not purchase formula for you, you can not purchase it yourself, and humanitarian organizations do not provide it to your community, how can a mother achieve AFASS feeding? In addition, do infants orphaned by HIV have the same right to human milk as infants with living mothers? Does WHO or any other organization have the right to tell a mother how best to take care of their families?

As the global fight against AIDS and the global campaign for breastfeeding continue, the essentiality of enabling AFASS breastmilk substitutes cannot be stressed enough.

II. Can you force a lifestyle?

As previously mentioned in this report, public health information alone is never enough to change behavior. As data from the past decades have shown, the evidence of the health benefits of breastmilk has not succeeded in convincing women to adopt the practice. In trying to inspire behavior change, public health interventions must consider the ethical dimensions of freedom of choice. Maria del Carmen Cassanovas explained how WHO approaches the challenge of balancing recommending “what is best for someone’s health” and “telling them what to do”. She explained that the answer lies in not only teaching people *why* to do something, but *how* to do it. For example, if a mother knows that breastfeeding gives essential antibodies to her child but is not succeeding in good attachment, she may decide to switch to a breastmilk substitute and her baby will not receive the immune system benefits she learned about. The information is present, but the behavior is not adopted and the health benefit is not realized. Simply repeating to that mother that she must breastfeed and enumerating the reasons why will only cause her further stress and guilt. In order to adopt a health recommendation as one’s own life choice, Cassanovas explained, “It has to be part of you,” (2009). It is therefore the challenge of global public health to empower people to convince *themselves* that a health practice will work for them in their individual life. In the beginning of the public health movement for breastfeeding, it was thought that breastfeeding was such a natural act that everyone would know how to do it. But as I learned from Rosa Constanza Vallenias del Villar, the practice of breastfeeding is actually not instinctual for the baby or for the mother: it is a learned behavior

(2009). Therefore, to improve health through breastfeeding, global public health must complement information on why to breastfeed with instruction and support on *how* to do so.

Cassanovas stressed that this assistance must also be unbiased: mothers must be respected as themselves possessing the best knowledge of what will work for them and for their child in their own context. If women feel pushed to breastfeeding, stigmas and negative feelings will accompany those who do not breastfeed and will be counter-productive in the community. It is also not helpful to only provide information on the positive effects, nor is it effective to try to “prepare for the worst” by scaring mothers with potential challenges. As Dr. Lourenco described to me, patients often feel betrayed when they experience pain or difficulty in breastfeeding, as their doctors had only ever told them of the positives of breastfeeding (2009). Women deserve to know the complete truth: advantages and disadvantages, benefits and potential challenges. Without this unbiased information, breastfeeding promotion can only tell women what to do, instead of enabling them to choose the best choice for their own situation.

Class status must also be considered in the ethical consideration of behavioral change. For example, in the United States where maternity protection is extremely limited, breastfeeding may be easier for women in mid/upper levels of society whereas women of lower classes cannot afford to breastfeed because they can not afford not to work (Villar 2009). Applying blanket recommendations such as the six month exclusive standard to all women, without taking into account their measure of liberty to achieve these recommendations will inevitably end up excluding people. Women who anticipate that they cannot achieve all six months may perceive that they are “failing” in some way and may give up sooner than if they felt that there was more flexibility. Perhaps the philosophy of the Global Strategy should focus on enabling women to

achieve a breastfeeding goal that they themselves set instead of fulfilling a fixed standard. In this way, public health is neither telling women what to do, nor expecting unrealistic results.

III. Are you a good mother?

The final ethical question that I identify in the Global Strategy is that of a mother's right as an individual independent of the life of her child. Increasingly in Western society, a mother who chooses to bottle-feed is "at great risk for being labeled "selfish" for not placing their infant's needs above their own," Stephanie Knack states in her article *Breastfeeding, Bottle-feeding and Dr. Spock: the Shifting Context of Choice*. "There is little consideration of external or structural considerations that may make breast-feeding unfeasible, or that might make bottle-feeding the best decision for both baby and mother...the very ability to make the "right choice" of breast-feeding is a privilege not enjoyed equally," she writes. Through analyzing decades of editions of the famous Dr. Spock's Baby and Childcare manuals Knack's explores the change in the discourse around infant feeding from a focus on mothers' needs and context to an altruistic focus on the child, concluding:

Contemporary infant-feeding discourse undermines mothers' abilities to feel confident about any decision other than that of pleasurable breast feeding, and how it ultimately operates as a judgment on their mothering practices...it illuminates why it is that so many bottle-feeding mothers experience feelings of guilt and failure...why so many make a direct connection between their sense of being adequate mothers and their abilities to breastfeed their babies, and why so many others have complex and burdened emotions about their infant feeding experiences. (2005)

Christina G. Bobel agrees in her Gender and Society article *Bounded Liberation: a Focused Study of La Leche League International*, in which she explores the paradoxical relationship of La Leche League's policies in trying to "liberate women" for control of their own

bodies while simultaneously constraining them into the unattainable image of a perfect breastfeeding mother. “The specific prescriptions of the League’s good mothering prove unrealistic and excessively self-sacrificing,” she writes. Bobel questions the adoption of the League’s way of thinking as running the risk of losing one’s sense of self. Is breastfeeding essential to being a good mother? Who has the right to judge these value statements?

Feminist perspectives are particularly interesting in this ethical dilemma. Is the role of motherhood biologically determined, or do women’s lives have meaning and purpose outside of their children? I gained insight into this dilemma with Dr. Carballo’s explanation of the evolution of a woman’s right to survive pregnancy over the last century. Whereas a hundred years ago a doctor would have favored saving the child’s life in a difficult childbirth over that of the mother, today modern obstetrics has enabled the development of a woman’s right to her own life. The woman is just as important as the child: both have the right to live and be individuals. This evolution has paralleled the progression of gender roles in society: today, a woman’s life has intrinsic value outside of the home and she has the right to decide how she wants to lead it. In the question of breastfeeding, is there a difference between relegating a woman to the home and telling her that she must breastfeed? If women simply do not want to breastfeed, are they truly being “selfish”? What about women who legitimately cannot breastfeed, due to work, medication, or breast surgery? Where is the balance between a mother’s right to her life as an individual and a child’s right to the highest attainable standard of health and nutrition?

If the global public health movement for increasing breastfeeding prevalence is to experience any real results, it needs to invite open discussion on these fundamental ethical questions. As mentioned before, causing guilt and stress to mothers is counter-productive in

global public health's efforts to protect, promote, and support breastfeeding. As HIV continues to affect global populations, societal and gender roles continue to change, and mothers continue to assert their right to individuality apart from their children, will the global public health campaign for breastfeeding keep pace?

Part IV: Self-learning Insight

Before beginning this project, I had no knowledge of breastfeeding, neither a clear idea of global public health nor an understanding of the field in practice, and no experience in conducting interviews or in networking. After a month of research, observation, interviews, and lectures, I believe I have reversed all of my former conditions. First and foremost, I have amassed a wealth of knowledge on breastfeeding and the societal, psychological, cultural, religious, historical, ethical, and health-related elements involved; much more information than could be incorporated into this report. In gathering this knowledge, my research experiences in Geneva (beyond the select few included in this composition) were indispensable to my realization of the concept of a system of global public health. Through the exploration of *The Global Strategy for Infant and Young Child Feeding* in action I have gained an understanding of how global public health operates in a multi-level framework. From the global standards to the local support groups, and with all of the international projects and national legislation between, breastfeeding is a true model of global public health.

The value of the field-based, self-initiated pedagogy of this assignment has been the most significant part of my time in Geneva. Although the understanding I developed of global public health will be useful in my continued studies at the Gillings School of Global Public Health, it is the confidence I gained through successfully navigating the actors involved in the Geneva

breastfeeding community that will remain with me. Skills such as employing ethos and logos in writing emails to potential contacts, formulating provocative interview questions, and being my own advocate for networking will continue to serve my further studies and work experiences. I intend to include interactive research methods into all of my further academic projects, including my Honors Thesis next year, in which I will be working with Dr. Mirriam Labbok of the Carolina Breastfeeding Institute on the environmental impacts of breastmilk substitutes. This ISP project has inspired me to continue studying global public health, to obtain Masters Degree in Maternal and Child health, and to always think of health in a global public framework.

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