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Challenging Global Advocacy of Biomedical Institution-Based Birth in Nepal: A Review with Reference to Nepal and South Asia

Thea Vidnes

Based on findings from public health, demographic, and anthropological research, this review discusses biomedical institution-based birth in Nepal, in the process asserting that better understanding of maternal health determinants requires biomedical strategies be balanced with greater attention to local social realities and approaches. The paper begins with a summary of evolving international maternal health policies and their manifestations in Nepal, then discusses how recent public health research there indicates existing community support structures, including women's groups, to have had demonstrably positive impacts on maternal health. The subject of women's reproductive agency is subsequently considered. While public health and development-based research often equates this to women's decision-making ability, I draw here upon anthropological examples from the broader South Asian context to reveal a more nuanced appreciation of agency, illuminating the many shifting forces influencing women's use of available maternal health resources. A case study based on a short piece of ethnographic research I carried out in Nepal in 2011 follows. Findings from this provide further evidence of the significance and positive effects of community networks and groups in maternal health outcomes; they also reflect aspects of the foregoing discussion of agency. Overall, the case made here is that an important and growing body of research exists, which challenges dominant views within international public health—and actively promoted by the Nepali state—that biomedically-managed, institution-based births are the most effective means to reduce maternal mortality. Thus suggest further research, that incorporates ethnographic explorations of Nepali women's agency in maternal health matters (including impact upon birth outcomes) is needed if more appropriate pregnancy and childbirth-related measures are to be enacted going forwards.

Keywords: childbirth, ethnography, maternal mortality, Nepal, reproductive agency, women's groups.

Introduction

Drawing on public health, demographic, and ethnographic research from Nepal and South Asia, this paper will examine how findings from these studies challenge the international advocacy of biomedical institution-based childbirth that currently dominates the maternal health arena there. Following a brief summary of evolving international maternal health strategies and their manifestations in Nepal, I will discuss how recent public health research there shows the work of existing community support structures, including women's groups, to have had a demonstrably positive impact on maternal health (maternal mortality in particular). The subject of women's agency within reproductive health matters is then considered. Often referred to in public health and development-based research, it is usually simplistically equated to a given woman's decision-making ability. By using anthropological examples from the broader South Asian context, a more nuanced appreciation of women's agency is revealed and discussed. A case study is then presented, based on a short piece of ethnographic research I carried out in Nepal in 2011. The findings from this offer further suggestive evidence of the significance of community networks and groups in positively influencing maternal health outcomes as well as reflecting aspects of the foregoing discussion of agency.

Through these illustrations and consideration of the broader context of maternal health policy in Nepal (much of it internationally-derived), as well as ongoing debates surrounding the validity of certain interventions, my purpose is to suggest that a better understanding of maternal health determinants requires balancing biomedical strategies with greater attention to local social realities and approaches. That various forms of enquiry, which include anthropological as well as public health and demographic, are required to achieve better understanding of maternal health determinants in Nepal and elsewhere. The existence of an important and growing body of research is highlighted, which challenges the dominant view within international public health—hence the driver (and substantial funder) of most state-level interventions, including those in Nepal—that biomedically-managed, institution-based births are the most effective way to reduce maternal mortality. As such, I identify a need for further research that incorporates ethnographic explorations of Nepali women's agency in maternal health matters, including impact on birth outcomes (and within that maternal mortality rates) if more appropriate pregnancy and childbirth-related measures are to be enacted in the future.

Biomedical Facilities-based Births Are Not Always Better – Challenging Dominant Views in Global Public Health and in Nepal

Increasing the numbers of health center-based births has been a principal strategy within plans to make ongoing improvements to maternal health in Nepal (USAID and Government of Nepal 2010; Nepal Demographic Health Survey 2011). There, a 'health center' or 'facilities-based' birth means the delivery of babies at recognized biomedical institutions: clinics, hospitals, and village Health Posts. By giving birth in such places women are, in theory, automatically assisted by a skilled birth attendant (SBA) and have greater potential access to timely Emergency Obstetric Care (EOC) should the need arise. Both these factors, presence of SBAs and EOC, are the other key components within national goals for improving maternal health (Government of Nepal and United Nations Country Team of Nepal 2010; Nepal Demographic Health Survey 2011).

This national advocacy of biomedical facilities-based birth is largely based on—and funded because it enacts—international development agendas. Nepal has attracted and been sustained by international development investment and aid for many years and in a variety of domains, at a scale out of proportion to its relatively small size and population of 27.5 million[1] (Justice 1986; Liechty 2003). Hence numerous governmental and NGO initiatives have been established to improve maternal health through increasing access to biomedical services, especially over the past 15 years (for example, see Powell Jackson et al. 2008; DFID 2009; Shakya et al. 2004).

The UN Millennium Development Goals (MDG) initiative (2000) is a principal actor in this, functioning as a standard against which developing countries such as Nepal are judged and assisted. Of the eight goals, the fifth MDG was dedicated to maternal health, and its objectives (to be achieved by 2015) are two-fold: to reduce the maternal mortality ratio by three quarters, and to achieve universal access to reproductive health.[2] Progress seems to have been made, as evident in marked reductions in reported maternal mortality in Nepal: 850 deaths in 1990, 415 in 2000, 281 in 2005, and 229 in 2010, with the aim that this number falls to 213 by 2015 (Government of Nepal and United Nations Country Team of Nepal 2010). Over the same period, meanwhile, the number of births attended by an SBA (doctor, nurse or midwife) has apparently increased: 7 percent in 1990, 11 percent in 2000, 18.7 percent in 2005, 28.8 percent in 2010, with 60 percent as the target for 2015 (ibid).

Moves towards an international development position that privileged institution-based childbirth had begun in 1999, when timely access to EOC was identified as crucial within future global strategies aimed at combating maternal mortality (Maine and Rosenfield 1999). The finding—based on analyses of preceding decades' maternal health programs—that most obstetric problems are neither predictable nor preventable via antenatal control or screening, but could be successfully treated if adequate medical care incorporating SBA was available, led to recommendations for this much more targeted approach.

This view that promoted institution-based, SBA-managed childbirth was essentially restated over subsequent years (Paxton et al. 2005; Rosenfield et al. 2006, 2007). One notably uncompromising paper called for "the prioritisation of all further investment for maternal survival in health centre intra-partum care strategy," with resources used to fund existing alternative approaches deemed "opportunity costs" (Campbell and Graham 2006: 1296-1297). This professionalized, EOC-promoting and centrally-administered strategy has remained dominant within global maternal health policies. However, as research in Nepal and other parts of South Asia shows, such a position is increasingly open to question.

In 2005, Nepal's government launched the Safe Delivery Incentive Programme (SDIP), a scheme providing cash payment to women who deliver in a biomedical facility; this program was intended to encourage greater use of professional services during childbirth (Powell Jackson et al. 2008).[3] By 2009, the Ministry of Health and Population was offering free institutional care during delivery (whether normal, complicated or caesarean) to every woman, at all facilities capable of providing the relevant services, the number of which was increasing considerably (Malla et al. 2011). Nevertheless, results from the most recent Demographic Health Survey of Nepal (2011) indicate that biomedical institution-based deliveries and SBA presence, while improved, were still well below target, at 28 percent and 36 percent respectively (in both cases the aim is 60 percent by 2015, in line with MDG standards).

While facilities-based childbirth is acknowledged in Makwanpur district as an appropriate long-term goal, it has been judged "simply not achievable with current resources and infrastructure" in the short to medium term for many areas with current high maternal mortality (Costello et al 2006: 1477). Aside from the possibility that unrelenting pursuit of this aim could leave such places without adequate guidance on how best to proceed in present circumstances, the researchers expressed particular concern that the 'one-size-fits-all' character of the health center-based intrapartum care strategy failed to recognize the need for context-specific policies.

Based on experience working with maternal health programs in Nepal and elsewhere, the authors maintain that strengthening health services does not necessarily increase usage by the poorer people they are intended to serve. The researchers call, therefore, for "alternative context-specific service and community-based strategies in addition to health centre-based intrapartum care" (ibid: 1479). Noting positive outcomes from existing community-level interventions in Nepal, such as antenatal vitamin A and women's groups' work raising awareness of maternal health matters, the researchers argue that greater attention should be given to improving local capacity for managing sepsis, hemorrhage and shock-related syndromes. These conditions, identified as crucial in areas with high maternal mortality rates, are amenable to relatively low-cost, low-technology inputs and therefore worthy of investment.

Another recent study reported that, while uptake of biomedical care both before and after delivery was popular, would-be mothers' use of local biomedical facilities to actually give birth was less widespread (Dhakal et al. 2011). In two majority-*tamang* villages near Kathmandu, 69 percent of the 150 women interviewed delivered their babies at home, despite more than two-thirds (69.2 percent) having accessed antenatal care during pregnancies, where advice to deliver at SBA-staffed biomedical facilities was frequently imparted. Furthermore, "half of the women stated that they themselves decided about the place of birth" (ibid: 373), and 52 percent of interviewees had opted to give birth at home, revealing a distinct preference for home birth within these communities.

Added to this, subsequent work assessing the rapid decline in Nepal's maternal mortality rate since 1990 suggests that while the pattern is plausible, evidence that it can be attributed to increased deliveries by health professionals is weak (Hussein et al. 2011). Similar findings, that neither increased availability of SBAs nor greater use of family planning methods could account for the reduced maternal mortality rate, have since followed (Simkhada and van Teijingen 2012). In both instances, other possible contributing factors were reduced fertility rates, better education, improved wealth, female empowerment, and community support.

Regarding these latter two categories, results from research done in Nepal in 2004 suggest that maternal and neonatal mortality could both be effectively reduced

through community empowerment, specifically peer-to-peer education and activities of women's groups (Manandhar et al. 2004). This study used a cluster-randomized control trial to compare neonatal and maternal health outcomes in women subject to community empowerment 'interventions' with those who received none. 'Intervention' resulted in a 30 percent reduction in neonatal deaths, as well as an unexpected (but very welcome) 80 percent decrease in maternal mortality. Moreover, in women who had been exposed to women's support groups, institutional delivery was just 7 percent, whereas among those who had not it was 2 percent (Manandhar et al. 2004).

More recent research has reiterated the value of women's groups in improved neonatal and maternal outcomes in Nepal. Studies have identified the likely influence of these organizations on increased uptake of antenatal care and hygiene during delivery, dissemination of knowledge leading to care-seeking and rapid responses, as well as raised community-wide support for maternal health (Morrison et al. 2010; Prost et al. 2013). Neither inquiry, however, found a clear link between women's groups and greater use of biomedical intervention at birth (institution-based care or SBA presence at delivery). Instead it was acknowledged that most women were still giving birth at home, attended by family or neighbors.

What are the processes that determine where women in Nepal give birth? Why is home birth still a seemingly attractive option for many despite increasingly ready access to biomedical institutions that offer apparently safer conditions?

Geographic location has some effect. The use of biomedical maternal health services in Nepal has been reported as greatest among urban, Tarai-dwelling women, and significantly less in rural or mountainous regions (Acharya et al. 2010). Similarly, structural factors such as distance to hospital, lack of transportation, unawareness of delivery care, and cost have all been identified as influencing women's uptake of birth-related services in Nepal (Brunson 2010; Dhakal et al. 2011).

There is much still to be learned from how home-births happen and what they are actually like for those concerned. For, as some of the research already discussed appears to indicate, Nepali women's decisions to have home-births may not necessarily evince a failure. Rather, they could constitute positive actions—personally logical and meaningful choices made by the women themselves in relation to their context; in other words, possible expressions of the women's agency.

Women's Agency and Maternal Health in Nepal and South Asia

Existing findings from Nepal show that women's agency can vary according to several factors pertaining to geography as well as intra-family hierarchies. Research based on the 2006 Nepal Demographic Health Survey found that women living in the hill zones participated more in decision-making across a broad range of areas—personal health care, major household purchases, purchases for daily household needs, and visits to family or friends—compared to their peers in the mountainous or Tarai areas (Acharya et al. 2010). Elsewhere in Nepal, male heads of household and mothers-in-law were identified as crucial figures in relation to maternal health, capable of limiting their daughter-in-laws' efforts to access antenatal care (Brunson 2010; Simkhada et al. 2010), as well as controlling behavior before, during, and after birth (Bennet 1983; Cameron 1998).

Agency, however, is more than simply the ability to make or affect decisions. Numerous other factors can contribute to how women locate and understand themselves in the world and how that then plays out in relation both to birth decisions and outcomes. While several ethnographies from Nepal feature childbirth (for example, Bennet 1983; Cameron 1998; Bjork Guneratne 1999; Childs 2004; McHugh 2001; March 2002), these tend to focus on the various hazards, proscriptions, and practices surrounding it; others look more at development of maternal health services (Justice 1986; Pigg 1997). In both instances the question of mothers' agency is less specifically addressed.

Brunson's (2010) ethnographic research with a semi-urban community of low-caste Hindus living at the edge of the Kathmandu Valley concentrates mainly on delayed responses to obstetric emergencies, originating at the household level. Nonetheless, her detailed account offers some important insights into women's capacity to shape their maternal health situation there. Unlike in many other parts of the country, a well-functioning maternal health infrastructure—two SBAs at the local sub-health post a few kilometers away, and two hospitals offering full obstetric services and reachable by bus from within 20 minutes to just over an hour—was readily available. Moreover, biomedicine as a system of knowledge seemed to be locally accepted and most women interviewed were not critical of treatment they had received from these sources. Yet use of the facilities remained limited. For older women, some of the services had come after their childbearing years, yet many viewed birth "as a natural process," not in the sense of romanticizing unassisted deliveries as an 'ideal' form, but that "it had not become medicalized" for this

group of women (Brunson 2010: 1723). Younger and more educated women, meanwhile, made regular use of the hospitals for antenatal check-ups, and just under a fifth of the case-studies followed had given birth in hospital for reasons other than complications.

While no maternal deaths were reported, several women recounted serious problems during childbirth that required biomedical care and significant delay in reaching it. Brunson identifies a series of impediments: how women in the community were socialized to play down their suffering, lack of knowledge about the labor, and most particularly insufficient "social power" within the household "to demand medical services or emergency care" (ibid: 1725). Such culturally-defined constraints on action were also identified in the village men's overriding tendency to regard childbirth as the women's domain and hence remain uninvolved. This was highly significant because when emergencies arose, it was the men who determined when biomedical assistance was sought, and thus were suddenly brought in to adjudicate situations about which they knew very little. The SBAs working nearby, meanwhile, for reasons that remained unclear, were not utilized. Possessing the relevant skills "but not the social capital" to attract patients, they were "skipped over" by village women in favor of the hospitals (ibid: 1725-26).

Overall, Brunson suggests that in the village where she worked, "gendered politics of decision-making and initiating action at the household level" led to unnecessary delays in reaching local biomedical obstetric services for women at risk of dying in childbirth (ibid: 1726). But what of the women there who were not in such dire circumstances? From the data presented, it can be inferred (exact numbers are not given) that the majority of women in Brunson's case studies gave birth at home, and without severe complications. Accepting that her focus was on obstetric emergencies and not on general maternal agency in childbirth, it nevertheless leaves open to question what these women had to say about their birth experiences and the reasons for delivering their babies where they did.

Turning to the broader field of maternal health in South Asia, several anthropologists have foregrounded maternal agency within pregnancy and childbirth. Given the considerable overlap in the maternal health situation between nations in this area, as well as their being subject to many of the same international development strategies related to this, these studies from India and Bangladesh offer important findings relevant to the situation in Nepal. I will now consider examples from these at some length, as assumptions about agency underpin a significant part of discussions surrounding where women give birth.

In Tamil Nadu, South India, Van Hollen (2003) delineates local women's "choice" of where they gave birth, with the word placed intentionally within quotation marks, to highlight that such decisions "are never made in a power vacuum by totally 'free' individuals" (Van Hollen 2003: 208). Socio-economic and cultural factors clearly have significant bearing on the kind of care women sought during childbirth, but attention is also drawn to the way in which discourses of modernity linked to and shaped the "choices" of these women. The logic of local, national, and international state and NGO maternal health organizations almost invariably equates education, modernity, and a status as 'developed' with increased use of biomedical maternal healthcare services. This view Van Hollen found internalized by most women she met. Among her informants in the state-capital of Madras (now Chennai), a considerable consensus existed preferring biomedical maternal-child healthcare (MCH), which in that city was limited largely to government or NGO-funded hospitals.

Elsewhere, however, where both institutional and non-institutional services were available, an apparently positive reception of MCH care did not necessarily extend into the time of birth. This was especially the case in Kaanathur-Reddikupam, a poor, low-caste semirural area just south of the capital, where in a one-year period almost half the women delivered their babies at home. Common reservations expressed about giving birth in hospitals were absence of friends and family, being compelled to accept family planning methods, receiving verbal or even physical punishment for expressing pain, and having their postpartum beliefs (especially those relating to maternal diet, infant feeding, and bathing practices) derided and forcibly replaced by those of the institution. Van Hollen witnessed the enactment of a modernizing discourse that legitimized such harsh and disdainful behavior towards the poor, mainly low-caste patients. The doctors and nurses in the biomedical institutions often referred to the Kaanathur-Reddikupam women as "illiterates," incapable of making good decisions (ibid: 210 -211). For this reason, many of the staff felt justified in practicing their modern MCH methods, believing that only through such enforced education would the women "come to know" (ibid: 211). These women thus faced a contradictory tension: they were encouraged to attend and give birth in MCH centers in order to be modern, yet within such places they were regarded as distinctly unmodern and treated with condescension and disrespect. Discourses of modernity within this community are thus shown to both compel and repel women to seek MCH care within biomedical institutions (ibid).

In several other parts of India and Bangladesh, discriminatory and disrespectful behavior from staff at biomedical institutions towards patients from lower castes and different ethnic groups has been reported to be instrumental in decreasing women's use of maternal health services and supporting stated preferences for home births (Ram 1998; Rozario 1998; Unnithan-Kumar 2001; Pinto 2008; Jeffery and Jeffery 2010). This was a significant reason cited among a community of low-caste Mukkuvar women whom Ram (1998) worked with on the Western coast of Tamil Nadu. For them, delivering children in the relative calm and comfort of home, attended by local (non-specialist) midwives and supported by family was vastly preferable to the social isolation of hospital-based deliveries—there regarded as "an emergency resort" (Ram 1998: 129).

Another factor was the perceived 'impatience' of biomedical establishments and their personnel—toward the birthing process as well as to any expressions of pain from the women. In contrast to the local midwives who offered qualities of sympathy and "patience and endurance" to the women, hospitals were regarded as sites where cries of discomfort were met with scolding and "overhasty resort" to surgical interventions (caesareans, episiotomies) (ibid: 133). Uptake of tetanus inoculation, folic acid, and iron supplementation were relatively widespread among the Mukkuvar woman, who attended antenatal check-ups at clinics or hospitals albeit irregularly. This was because, unlike hospital-based childbirth, the check-ups and simple treatments occasioned little disruption to daily routine, nor required prolonged relocation to a place of medical control. As such, use of maternal health services by these women was characterized as "selective and varied," a function of the extent to which biomedical facilities and their treatments impacted everyday life as well as pre-existing experiences of pregnancy and childbirth (ibid: 128-129).

Pinto (2008), found that home births were similarly favored in a poor, predominantly lower-caste area in rural Uttar Pradesh. Although women there again cited poor treatment at the hands of medical staff, home birth preference also related to their self-identification as being of the countryside (*dehati*): a status connoting marginality yet imbued with certain qualities. With regard to childbirth, being *dehati* incorporated the choice to give birth at home in the village, for which many women travelled back from the city where they worked. This acknowledged a specific form of embodiment and inherent strength in such bodies; the *dehati* woman's acquaintance with heavy work—at home and in the fields—rendering her body "loose" and able to give birth more easily, without need for intervention (Pinto 2008: 257-258). Taken together with her expected ability to endure pain (considered among Pinto's informants and elsewhere [Van Hollen 2003] as necessary for birth) and to work hard to deliver her child, there arose an opposition between *dehati* births and those of urban dwellers and the rich, as well as between the village-based deliveries and biomedically-controlled births (Pinto 2008).

In contrast to others' findings (Van Hollen 2003; Donner 2004), Pinto found the women she worked with less taken up with notions of modernity in relation to their use of biomedical maternal health services. Instead, a "dislocated form of medicalization" was detected, which involved women returning from the city where hospitals were available in order to give birth at home; once home, however, these women might speak of the need for 'hygiene' and call on local health workers (some referred to as 'doctors') to give oxytocin injections (Pinto 2008: 256-257). Van Hollen (2003) made similar observations. There were three known midwives in Kaanathur-Reddikupam, yet most women giving birth at home opted for the one who had multi-purpose health worker (MPHW) training, had a clinic attached to her home, carried and regularly used medicines such as oxytocin and glucose, and generally adopted an air of professionalism. In short, they chose the midwife who most closely embodied aspects of modern maternal health care, which women had come to regard as positive, while at the same time enabling them to give birth at home, with its associated familiarity and more sympathetic treatment.

In identifying specific resistance to aspects of biomedical birth methods and practices, but no rejection of it, the above anthropological studies show the complex, context-specific way in which the women encountered engaged with the medicalization of childbirth. Technological and professional facets of modern antenatal care and even delivery might be actively sought, but only outside the walls of institutional structures which the women felt offered little care and minimal respect for their own knowledge, practices, and experiences. Furthermore, while no claims here are made about the relationship between home-birth preference and birth outcomes in the above examples from India, the preference to deliver at home is paralleled in the findings from Nepal already discussed (Brunson 2010; Dhakal et al. 2011). These ethnographic accounts, however, show up the complex reasons undergirding women's apparent preference for home births, illuminating forces and dynamics that inform their ideas of self and personal agency.

Following on from this, Unnithan-Kumar (2004) highlights the risk of assuming certain flows of behavior in relation to women's engagement with biomedical maternal health

services: that an important distinction exists between seeking out medical information and an intention to act upon it: "we can have 'reproductive agency' accompanied by a *lack* of visible action" (author's emphasis retained); autonomy can be reflected in decisions "to forgo action, rather than action itself" (Unnithan-Kumar 2004: 6).

One example, drawn from her longstanding work with a predominantly Muslim community near Jaipur, Rajasthan, showed that, though women might seek out ultrasound scans to verify pregnancy, doing so did not usually predispose them to access further biomedical intervention—even if the scan helped indicate its necessity. Rather, other factors, not specifically financial (reproductive matters, due to their centrality, could even in poor families command priority funding), were instrumental. Of specific significance to these women were their relationships with family members and the relative dynamics of control exerted within these relationships (Unnithan-Kumar 2001).

Paying close attention to these interpersonal, emotional relations is, in Unnithan-Kumar's opinion, crucial to appraising women's agency in relation to reproductive health. Despite a cultural context that exerted constraints on which health services they could access, women were nevertheless able to choose between a range of specialists, from private city-based gynecologists to local spiritual healers. Thus, while acknowledging the obvious array of complex, non-static factors at play (including individual physiology, personal knowledge and standing, individual and community beliefs, and degree of poverty), Unnithan-Kumar identifies "the emotional universe of village and kin relationships" as a key aspect within any such calculus (ibid: 30). The ways in which these social dynamics interrelated with the intentions, motivations, and desires of the women when seeking healthcare was critical—a facet conventionally ignored by public health analyses.

Through examination of the emotional relationships between women in the community, affinal kinswoman were shown to be of greatest influence in shaping women's negotiations of healthcare possibilities. Moreover, a women's agency was seen to shift over time. As she progressed through her reproductive career (especially if successful—i.e. bearing two or more each of sons and daughters), emotional support from and room to negotiate with her affinal family would grow, and with it the ability to realize her desires in healthcare matters.

In a place where knowledge about routine childbirth was diffused throughout local kinswomen, people's decisions surrounding childbirth—including who should attend and whether and when additional (medical) assistance was required—were based less on expert knowledge, and more "a function of social intimacy" (ibid: 40). As a result women overlooked the state-sponsored auxiliary nurse midwife (ANM), tasked in part with assisting in childbirth, in favor of kinswomen and other known low-caste midwives from the village. In situations where biomedical help was sought, the women often preferred private practitioners over the cheaper, relatively accessible state-run services. This was partly because the private doctors were perceived as efficient but also due to the possibility of operationalizing a quasi-kin connection. By consulting a doctor other community members had already used, women aimed to establish a kin-like relationship with the practitioner and hence receive more sympathetic treatment, as well as potentially more favorable terms for repayment of fees.

In a similar vein, Donner (2004) describes how, among middle-class women in Calcutta, positive uptake of hospital-based childbirth (including a notable preference for caesarean sections), though incorporating ready access to pain-relief and associations of modernity, was predicated most strongly on the women's internal household dynamics. As married women living with their parents-in-law, they were often expected to undertake a large proportion of activities in the home. For these women, one of the pronounced benefits of undergoing a hospital delivery, especially a surgical one, was that they could not be expected to resume such responsibilities for a given period of time and were instead allowed to rest and provided with extra help and support. However, it was exactly for these reasons that in conversation with lower-class wage laborer women Donner found that caesareans were regarded negatively: for the costs, not least in compromising the women's ability to earn money. As such, the women in her study "evaluate the merit of specific procedures circumstantially" (Donner 2004: 129). While the perceived superiority of biomedical method or acceptance of its hegemonic discourse could be relevant in their decision-making processes, it lay secondary to more complex considerations regarding the women's economic and social position within the household.

Women's choices surrounding pregnancy and childbirth have also been addressed in Bangladesh. While focusing less explicitly on agency, Rozario (1995, 1998) draws out the numerous factors that contribute to its shaping. Thus for a relatively poor group of rurally-based Muslim women, use of biomedical facilities depended upon what the community found acceptable, appropriate yet also affordable. For example, the costs of travelling to and using hospitals were a major barrier, but as significant were the religious infringements on seclusion of women (*parda*) and

resulting threat to honor (*izzat*) that a stay there could occasion, "a drastic assault on the family's sense of proper behaviour, including exposure of the birthing women to male staff and other non-relatives" (Rozario 1995: S148).

Rozario asserts that decisions about seeking health care were essentially out of the birthing woman's control. For a younger woman to openly express her opinion was to risk compromising her honorable status; according to local social and religious norms, such outspokenness from a woman structurally and culturally dependent on men and residing in her husband's home was interpreted as "shameless" (Rozario 1998: 155). Older women had some say in domestic affairs, most likely a privilege accrued over time. As with examples already discussed, women were also subject to their affinal kin's decisions. Given that most childbirth problems were perceived as a consequence of pollution or evil spirits (*bhut*), the "first lines of defense" to tackle such problems usually involved confining the woman, strict food taboos, and use of charms (ibid: 151). All that said, there was evidence that an increasing number of women were using contraception, often without their husband or mother-in-law's approval or knowledge. While reduced cost, increased availability, state- and NGO-led promotion, and more widespread religious approval all played a part in its increased uptake, Rozario detected that women were also using contraception to strike a balance: "that if they could not make birth a safe event, then their best bet would be to reduce the number of births by taking contraception," an attempt to take control of bodies that were otherwise being continually endangered at others' behest (ibid: 159-160).

Although agency is not explicitly foregrounded in the Bangladeshi case, the material, religious, and interpersonal relations intertwining and at stake are skillfully exposed, contributing to an understanding of women's agency in matters of pregnancy and childbirth.

Through this fairly detailed presentation of recent anthropological research focused on examples of South Asian women's use (or lack thereof) of biomedical childbirth facilities, the intention has been to illustrate just some of the considerable nuances operant in ways women interact with maternal health care available there. This consideration of women's agency in childbirth (as well as reproductive decision-making more generally) has sought to move beyond one-dimensional interpretations that forge simplistic links between agency, decision-making and action. Instead richer understandings of agency are presented, which delineate a multiplicity of shifting forces at play in determining where a woman gives birth to her child. It thus shows how the prolonged and personalized engagement that forms part of ethnographic inquiries can yield findings that often pass other forms of research by undetected.

Case Study – Sakas Village, Central Nepal

Findings from a month-long piece of ethnographic research that I carried out in Nepal in 2011 provide further—albeit only suggestive—evidence for the need to examine women's interactions with biomedical facilities at childbirth more closely.

In the predominantly *gurung* hill village of Sakas,[4] with a population of approximately 2,000 (Pettigrew 2009), women spoke positively of using the relatively well-equipped Health Post there. They visited the Health Post regularly for antenatal and post-natal treatment and checks, which were carried out by two nurses; one of these women was also a fully-trained midwife who had worked and lived in the village for 20 years, while the other had arrived more recently and was half-way to completing midwifery training. Despite a designated 'delivery room' at the Post, not one of the more than 20 mothers I talked with had actually given birth there. Instead, all but two had given birth at home, sometimes assisted by a health-worker but more often by family or friends. The reasons offered for this were seemingly pragmatic: that the births happened so quickly there was insufficient time to go to or get help, that the births were easy and further care was unnecessary, and that on at least two occasions assistance from the Health Post was unavailable because the facility was closed or its staff absent.

Accounts from the Health Post were confusing. The senior nurse was adamant that pregnant women from Sakas usually gave birth at the Health Post or the main public hospital in Pokhara, saying, "very few in the home... home delivery is much less often." The maternal register showed that in the previous three months,[5] 19 deliveries took place there and only six were attended by a Health worker at home (one other woman was referred to the regional hospital because she had a high-risk pregnancy). Yet the other nurse, speaking at a different time, asserted that more educated and wealthy villagers preferred to have a hospital- or clinic-based delivery in Pokhara (the nearest city), subsequently adding, somewhat paradoxically, "home birth is the preference in the village for many." As such, the figures were likely under-representative, with several of the unrecorded births potentially having taken place at home.

Despite this, both nurses were absolutely clear that they knew of no maternal deaths in the village within the past

19 years, something none of the villagers contradicted either. The senior nurse had stated firmly, "After my arrival no one has died; only [during] two home deliveries [that took place] in our [health workers'] absence. Otherwise, in this 19 years no-one has died during birth."

The lack of clarity surrounding where women in Sakas actually gave birth might have been due to anxieties felt by the Health Post staff. They wanted to show themselves and their practice as necessary and efficacious. Despite dedicated delivery facilities, trained staff, and the SDIP payment, none of the women I spoke with had given birth at the Health Post, and all but two had given birth at home. This raised the possibility that Sakas women's selective engagement with biomedical maternal health services nevertheless yielded positive maternal health outcomes, potentially attributable to other factors.

Certain features of life in Sakas may have shaped how women there could respond to maternal health opportunities. As I witnessed, and others have described (Pignède 1993; McHugh 2001; Macfarlane 2003), *gurung* women had significant status and visibility within their communities. Social and physical spaces were occupied by both sexes to a similar degree, with males and females chatting together at tea-shops or working together on the terraces. Women also sold (and sometimes bartered for) locally-grown produce, depositing some of the proceeds in the village's women-only micro-credit organization. In addition, most women in Sakas were active and enthusiastic members of one of the five Mothers' Groups (*aamaa samuha*) there.[6] These groups met regularly and coordinated several local projects, such as pathway and building maintenance and a literacy improvement program. They also disseminated health information, promoting biomedical maternal health services to village women, including use of the Health Post as a place to give birth.

Alongside the Mothers' Groups and women's evident physical, economic, and social presence in Sakas, those women I spoke with also related a considerable degree of ability to determine their actions and roles within their families and communities. Accounts from birthing mothers posited themselves as central figures in deciding whom was present at births and whether medical help was required. It suggested that women would (and did) have considerable capacity to choose when and how they accessed biomedical maternal health services.

Drawing on the earlier discussion of agency and based on my own findings, I would suggest that most Sakas women made a positive decision to give birth at home, understandable within the local context of accessible biomedical facilities, women's significant social standing, and the presence of strong community support networks. Moreover, that this decision does not reflect some form of absence, ignorance, lack, or limitation of opportunity to seek alternative care.

Given the national maternal mortality rate in Nepal (229 in 2010, down from 850 in 1990), the figures from Sakas—two deaths in the past 19 years—seem extraordinary. The accuracy of this maternal mortality data is clearly questionable. I have only the Health Post personnel's word, and while no one else I spoke with in Sakas disagreed, one must remain mindful of the context. The importance of civility, honor, and solidarity within *gurung* society (McHugh 2001) would likely have constrained any expressions of dissent, and especially voicing them to an outsider like me. That said, if the numbers are even approximately correct, they are still surprisingly small. So what reasons could there have been for Sakas's very low maternal mortality rate?

The regional capital of Pokhara, half-a-day's journey away, with its main state-run hospital (and various other private clinics) was reasonably accessible to villagers. One of my interviewees had, in fact, chosen to give birth at that hospital instead of in Sakas. It also meant Health Post staff could refer any problems they felt unable to manage and expect the patient to receive more advanced care relatively quickly. Serious childbirth-related problems thus seemed less likely to occur in the village—women either self-referred or were sent to Pokhara before anything catastrophic could happen.

An additional possibility, however, is that the mutually sustaining economies of exchange and networks of interdependency (including membership of Mothers' Groups) could have indirectly influenced Sakas's maternal mortality rate. The closeness, both physical and metaphorical, between neighbors and friends, might have enhanced social, financial, and even physical welfare; Sakas had a network that was able to keep its members well fed and cared for. The accounts of women who had given birth in the village also made it plausible that a pregnant, birthing, or recently-delivered woman in need of help, either at home or in travelling to a biomedical facility, could call on numerous people's assistance. Furthermore, the slightly older marriage age of most *gurung* women (in their late teens or early twenties) makes it likely they would have slightly fewer pregnancies and that their physically mature bodies would be better able to endure the added physiological strain of childbearing when it occurred.

Based on the data gathered from Sakas, village women's selective engagement with biomedical maternal health services there appears to have been an expression of their

choice, based on their preferences and local circumstances. This case study's short duration and relatively few informants substantially limit the conclusions that can be drawn from it. Nonetheless, the findings correlate well with previously discussed evidence that local women's support groups can help reduce maternal deaths, regardless of where a birth takes place (Manandhar et al. 2004; Morrison et al. 2010; Prost et al. 2013). Taken altogether, the results speak against the appropriateness of privileging facilities-based biomedical strategies above all others in the quest to improve maternal health, especially in relation to giving birth. These findings also further the case for re-examination of the dominant maternal health strategy hierarchy, which currently renders all measures subordinate to a professionalized and preferably facilities-based biomedical one.

Weighing the Evidence

Several figures within the wider public health community have expressed concern about research that suggests maternal mortality can be reduced through community support measures; they worry such studies undermine the rationale for erstwhile investment in strengthening biomedical birthing facilities and EOC, potentially persuading donors (at national and international levels) to switch funding direction in favor of non-institution-based measures (Behague et al. 2009). While combining both strategies might seem the most beneficial (and logical) approach, such integrated and comprehensive programs are often judged to be "financially unviable, unrealistic, and too institutionally complex by governments and donors" to implement in practice (ibid: 1543).

The accretion of international guidance and policy in maternal health has led to a situation described as "[S]inking in a sea of safe motherhood concepts" (Hussein and Clapham 2005). Interpretations of EOC, SBAs, and measurements of progress have differed over time, as well as simultaneously between global policy-writers, illustrating a lack of consensus within the international public health community on how to reduce maternal mortality (ibid). 'Old' policies and their effects do not simply disappear; rather, at national and sub-national levels where programs have been implemented, there can remain "layers of conflicting and unclear concepts... a newer concept replaces an older one, but the older concept is not entirely discarded" (ibid: 299). As such, an ongoing mismatch between global policy and local implementation can endure. Drawing attention to the potentially incoherent information reaching those 'on the ground,' as well as to inconsistencies and contextual specificities extant within the international public health community, Hussein and Clapham offer a useful corrective to the apparently self-evident authority (at least to those producing and promulgating them) of the policies and practices being generated in the international public health field.

Whichever evidence-based policy is pursued in a given area, the issue arises of how much that decision is based on information gathered from the local context and how much is applied in response to internationally-derived standards. As shown above, findings from recent public health and demographic studies in Nepal already provide some concrete grounds for challenging the status quo. In addition, the anthropological research presented, through exposing more of the context-bound complexities embedded within reproductive decision-making, weakens justifications for such top-down policy enactment. Taken together, they add to the voices calling into question what, how and by whom evidence is used to justify claims that reductions in maternal mortality rate are biomedically-determined, with facility-based services a critical component within this.

Conclusion

Contrary to the dominant public health discourse, factors other than exclusively biomedical input have been shown to determine maternal health and even reduce maternal mortality. Findings presented here from recent research in Nepal suggest health facilities-based births are not an essential pre-condition for low maternal mortality. I suggest that understanding how and why improvements in maternal health have evolved in Nepal requires closer attention to existing low-technology methods and community-based networks, structures, and approaches, including Mother's Groups and comparable local organizations of women. This also demands a more flexible basis for policy-making, incorporating a nuanced and differentiated appreciation of women's agency within maternal health: one that engages at a local level with the broad range of aspects—social, emotional, economic, political, religious—that may influence maternal health, but also allow outcomes to vary with location or group. In a country as socially, economically, ethnically, and geographically diverse as Nepal, 'one size' of policy is highly unlikely to 'fit all' places.

That women in Nepal can now access better maternal health care more readily and affordably must not be discounted. Anthropologists as much as public health scholars caution against romantic perspectives that posit women as necessarily wanting to or being better off giving birth at home (Rozario 1998; Unnithan-Kumar 2001; Van Hollen 2003; Brunson 2010). Moreover, strategies derived

from international public health policies have made (and will continue to offer) numerous positive contributions to maternal health in Nepal, including maternal mortality rate reduction. Research on which these interventions are based is focused usually at the population level, which is understandable because it enables fruitful comparisons to be made between different communities nationally as well as internationally. Population-focused research seldom, however, has the capacity to look into the localized particularities of a given place, over time—factors that profoundly shape people's decision-making processes.

Yet, while such policies continue to be disseminated there exists a real lack of consensus among international public health actors on how best to combat maternal mortality and improve maternal health. Institution-based delivery has come to be strongly promoted and endorsed, but the potentially negative effect of its privileging of biomedical evidence and methods over local realities is evident and becoming more widely documented. Within anthropology, this has been shown in studies of Nepal (Justice 1986; Pigg 1997), neighboring Tibet (Adams et al. 2005; Craig 2010), India (Ram 1998; Unnithan-Kumar 2001; Van Hollen 2003; Pinto 2008; and Jeffery and Jeffery 2010), Bangladesh (Rozario 1998), and elsewhere in the world (Jordan 1989; Sargent 1990; Berry 2006).

Within the public health field, some have acknowledged a requirement to pay attention to contextual specificities in research findings, as well as actions predicated upon those particularities (Thaddeus and Maine 1994; Hussein and Clapham 2005; Costello et al. 2006; Hayman et al. 2011). This need, however, is mired in political complexity, not least in relation to competition for development funding (Behague et al. 2009). All the while a gap persists between global policy in maternal health and its implementation on the ground, which public health research and the policies it informs have yet to overcome.

Amidst the ongoing push for increased facilities-based births, the research discussed above makes plain that many women in Nepal and other parts of South Asia remain disinclined to give birth in these facilities, despite their availability. These women are usually well aware of such services but continue to use them selectively, even as provision expands due to the considerable (and ongoing) national and international promotion and investment. Furthermore, evidence presented here shows that, in Nepal, declines in maternal mortality can be confidently attributed neither to institution-based births nor their being handled by biomedical personnel. Yet other factors, notably local maternal support networks, may be having a significant effect.

The foregoing anthropological discussions of agency show that the confluences of structures, forces, and dynamics determining how women engage (or not) with maternal biomedical services, including such maternal support networks, are complex, shifting, and highly variable. Understanding them effectively requires particular ways of attending to local realities, which the anthropological work featured here demonstrates. This therefore underscores the importance of ethnographic studies within maternal health and the many potential gains possible from greater dialogue between public health and social scientists.

Existing research within public health and demographic studies offers potentially compelling but ultimately associative connections between positive birth outcomes and non-institution-based deliveries in Nepal. This, I would argue, is where anthropologists have a significant future role to play. With the notable exception of Brunson (2010), there seems to be a current lack of substantive research addressing, with ethnographic attention, the relationship between maternal agency and birth outcomes there. While structural factors such as poverty must never be underestimated, anthropological explorations of women's agency in relation to maternal health are a necessary next step if we are to make better sense of the existing situation. Given the aforementioned diversity in Nepal, findings will be many and varied. Nevertheless, these disparate accounts are needed if more appropriate pregnancy and childbirth-related health measures are to be enacted going forwards. This is important because despite several waves of national and international maternal health policies, giving birth outside of biomedical facilities, usually at home, remains the normal state of affairs for most women in Nepal.

Thea Vidnes first went to Nepal in 2011 as part of a Master's degree in medical anthropology. Originally trained as a doctor, a growing interest in anthropological approaches to medicine, especially in relation to maternal health and the Himalayan regions, led her to change career direction. She has since commenced doctoral studies in social anthropology. Her research continues to focus on these subjects, as well as on diaspora communities and the anthropology of food.

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Endnotes

1. Total population of Nepal in 2012, as published by the World Bank, was 27,474,377. ("Population, total," The World Bank, accessed March 18, 2015, <http://data.worldbank.org/indicator/SP.POP.TOTL>)

2. "Goal 5: Improve Maternal Health," United Nations, accessed March 18, 2015, <http://www.un.org/millenniumgoals/maternal.shtml>.

3. Women delivering in biomedical facilities receive a cash payment of 1,500 rupees for those living in mountain regions, 1,000 rupees for hill residents, and 500 rupees for those in the plains. The SDIP also offers incentives to health-workers, paying them 300 rupees for each birth they attend either at a woman's home or in biomedical facilities (Powell Jackson et al. 2008).

4. I have used a pseudonym for the village itself, but all other places referred to in this paper retain their usual names.

5. Records commence at the start of each Nepali new year, in this case April 14 2011.

6. It has been asserted that, historically, Mothers' Groups began in and were exclusive to *gurung* communities (Sharma 1997). In recent years, however, they have evolved into nationwide organizations comprising all castes and ethnicities residing in a particular area (Lingden 2008). Given their women-only membership, much of Mothers' Groups' work centers around the role of women in the community and issues that affect them.

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