Chapter 9
The Culture of Health Regulation and Its Implications on Maternal and Reproductive Health in South Asia

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9.1 Introduction

We have already established two important matters so far in this book, with regard to improving healthcare support for women: firstly, that state intervention is imperative to improve women’s health behaviour and health outcomes and, secondly, that maternal and reproductive health services have been prioritized over all other health services in South Asia. In this chapter, we intend to discuss optimal health regulatory practices, in context to functioning maternal health services. There is no doubt that culture and traditions influence regulatory practices of the state, and in fact, it is culture that is responsible for sustaining regressive and inefficient regulatory policies in a nation (Cleary et al. 2013; Manville et al. 2013). We believe it is imperative to try and change this culture of abandonment and propose a better regulatory health framework for South Asia, in order to improve health services and protection of women. We hope this work will help to map policies for improvement in maternal health, given higher mortality in South Asia, and also help develop plans for other healthcare services for women in the region. Regulation is the sustained and focused control exercised by a public agency over activities that are valued by a community (Walshe 2003). It is suggested that regulation is established as a continuous activity with a clear direction, firmly rooted in the public sector with public interest as the main goal and where only public institutions are responsible for regulation.

The critical role of the state in regulating and facilitating the overall management of a diverse and demanding health sector in developing countries has come under renewed focus. Realization has dawned that health care is a risky business. Analysis
of credible data revealed that over 10% of patients experience some type of adverse event in hospitals or at health facilities (Webb et al. 1993). In South Asia, the situation is even direr, with regard to unfavourable error reporting, low patient safety, and adverse health outcomes, especially for women and children (Chakravarty et al. 2015; Jafree et al. 2015). Estimates and consensus from other countries suggest that a large proportion of errors are preventable. The challenge for safety and quality is to design safer systems and inculcate a culture of safety (Sheikh et al. 2013), and the challenge for governance essentially is to ensure that these systems and practices are applied in reality (Healy and Braithwaite 2006). Multifarious reasons are attributed for the challenges encountered in health regulation which will be discussed in detail subsequently. At the outset, it is important to note that the extensive and ever-expansive size of the private sector involvement has led to marketization of the health sector. This requires a strengthened role of the state (Kumararayake and Watts 2000). The catch, however, lies in the fact that limiting the regulatory effort in the health sector to the state alone has implications for the success and robustness of the effort and outcomes. This is especially true for a region like South Asia, where state policies and regulatory efforts are influenced by regressive gender-based values. To take an example, the Jirga laws and feudal system have more control over the practices of women for health care as opposed to state laws. And this is what we need to discern at various levels.

9.2 Types of Regulation by State

When it comes to regulation of the health sector, the traditional focus has been a standard setting, as in the shape and form of ensuring minimum levels of quality and safety. This approach often termed as “social,” can be distinguished from the more “economic” approach, which looks at the role of regulation in the context of markets (Ogus 1996). However, the “social” approach must be extended to consider the cultural commitment to ensuring quality, safety, and equity in health services. Definitions presenting a social focus emphasize control, public authority, and the power of the state; emphasize using regulatory instruments of a bureaucratic nature; and require state authority to enforce regulations or influence behaviour in tangible terms (Baldwin et al. 1999). Social control is premised to include regulation in a way that emphasizes social cohesion, equity, and protection as an aim. What is explicit is that “command” and “deliberate state of influence” are usually understood to be state functions. At the core of health regulation lies the aim of changing individual and organizational behaviour in health care, essentially through the use of coercive power (Roberts et al. 2004). Regulatory instruments and legal tools are applied through the state apparatus. Little scope is allowed for negotiation amongst different actors, and the state is perceived as the dominant regulatory authority.

Another school of thought defines regulation in an economic context as government controlling or deliberately trying to influence the activities of actors by manipulating such variables as price, quantity, and quality (Kumararayake and Watts
The responsibility rests firmly with state authorities, and it is assumed that manipulation of market rules for price, quantity, and quality is sufficient to influence the behaviour of market actors and can lead to economic efficiency. Measurement of these variables would require considerable market behaviour and outcome data that are seldom available in developing countries. Attention has, therefore, tended to focus on quantity and quality controls amongst regulators in developing countries (Kadaï et al. 2006).

Mackintosh focuses solely on the commercial sector and introduces the private health insurance industry in the discourse for health regulation (Mackintosh 2007). Regulation from this context is defined as actions by the state regulatory agencies to influence the private sector to provide health services and health insurance through market sale and with objectives of profit. Actions needed to fulfil this mandate include price-setting rules, standards, competition policies, restrictions on the organizational forms of market actors, and consumer rights licenses. Qualified providers are mostly not accessible or affordable by the poor, who in turn rely on private informal providers that are largely unregulated. This is especially a problem in South Asia, given high poverty levels and the feminization of poverty specifically. Current systems of regulation in developing countries are unable to control private healthcare systems in earnest. One salient reason for this is a lack of information or knowledge on the behaviour and activities of commercial, particularly informal providers (Bloom et al. 2009).

There is also the “Command and Control” view, in which the state calls the shots as it is in the driving seat (Aalders and Wilthagen 1997). The state usually invokes legal and punitive power. It is documented to be a mostly non-inclusive and top-down regulatory system. One example is immediate and fair punitive actions against illegal reproductive health clinics and abortion centres in South Asia. The government is perceived as the single driver behind regulation, selectively deploying and adjusting these actions as per situation and ground reality. A major concern of this form of regulation is the equity of access, especially in developing countries and countries that have patriarchal states which neglect women. Currently, the health sector of South Asia is characterized by intricacies of variegated nature, complexity, a plurality of players and multitude stakeholders, rapid change in its environment, and a recent proliferation of regulatory strategies. This is why a one-size-fits-all solution is not likely to work in a sector as complex as health for South Asia.

9.3 Challenges to Effective Regulation in South Asia

Medical negligence is rife in developing countries. However, under-reporting is also a matter of serious concern. Under-reporting of medical negligence is influenced by the inadequate culture of patient safety, lack of knowledge in patients, and the absence of accountability against perpetrators (Raposo 2015; Jafree 2018). Medical negligence is undisputedly a mandate of regulation. Due to systemic shortcomings primarily, the medical negligence cases end up with police taking cognizance, with
very little capacity to understand and prosecute (Jawaid 2014). A review of the literature identifies constraints on effective systems for regulation of the commercial health sector in developing countries, including poor enforcement, limited institutional capacity, and cost-effectiveness of regulations (Brhlikova et al. 2011). Whilst being a generic problem, this assumes serious proportions when it comes to regulation, since health regulation requires a skill set of a higher order. Minimum Service Delivery Standards (MSDS) requires the availability of a specified number of trained human resources, whilst South Asia is a region that faces a health workforce crisis (WHO 2006). Local studies have asserted that hiring qualified ancillary staff and maintaining clinics according to MSDS requires not only investing more capital but also raising the overheads manifold (Momina et al. 2016).

Poor enforcement of health regulation is reported as a primary problem (Ensor and Weinzierl 2007). The administrative burden of bureaucratic approaches to regulation can be considerable (Teerawattananon et al. 2003). Regulation requires adequate monitoring and information systems and mechanisms for decision-making about violations and guidelines on when and how to apply sanctions. For these reasons, failure to enforce regulation is usually attributed to lack of institutional capacity (WHO 2000). The impact of competing priorities is also an important reason that regulation may not be enforced. An empirical study that examined the enforcement of pharmaceutical regulations in a developing country revealed that the licensing of facilities had been introduced, but regulators had not developed sanctions in case of violations (Stenson et al. 2001). Moreover, due to lack of resources, trade-offs had to be made with the geographical distribution of pharmacies and enforcing quality regulation.

Regulation and enforcement are dependent on institutional capacity, which is generally weaker in low-income countries than in middle-income countries (WHO 2000). Middle-income countries may have much larger commercial health sectors, as well as more resources to channel into regulation. Findings from regulation studies in other developing countries like Zimbabwe, Tanzania (Kumaranyake 2000), Laos (Stenson 1997) and Thailand (Teerawattananon et al. 2003) illustrate these differences. In Thailand, roles and responsibilities of regulators and regulations that covered both public and private sectors were found to be comprehensive. Administrative structures, rules, incentives, and standards were firmly in place, indicating that Thailand had reached a stage of institutional development and capacity that can produce these regulatory systems. However, low-income countries, including states in South Asia, had not accomplished these, mostly due to the lack of institutional development and the limited availability of resources. This critical and fundamental difference between countries cannot be ignored.

Compared to middle-income countries, in low-income countries, there are more international actors, including NGOs, UN agencies, and bilateral donors. They provide resources and exert influence on health policy, strategy, and implementation (Palmer et al. 2006). The distinction between countries with low or virtually non-existent institutional capacity and those with more developed institutional capacity determines the capacity level at which analysis for regulatory reform begins. Experience shows that if regulatory frameworks are adopted at the right time, the
worst problems may be avoided or at least managed, but once the private sector has grown large, it is difficult to introduce regulation (Kumaranayake 1997; Mills et al. 2002). This is actually happening in almost all of the South Asian countries, in particular, the ones with large populations like India and Pakistan.

In developing countries, regulation generally focuses on formal-sector commercial providers through licensing of health professionals, pharmaceuticals, medical technologies, and health facilities. Defining standards for performance, such as through the accreditation of hospitals, is a more common practice but is considered more of a voluntary bargain (Ensor and Weinzierl 2007). Regulation becomes a pressing need if the behaviour of commercial sector providers is seen to be undermining or in contradiction with national health goals. The example of managing infectious diseases like dengue and more recently coronavirus is a case in point. South Asian governments stepped into the realm of social regulation—through awareness—and economic regulation, by subsidizing or providing free diagnostic tests.

Data collection and the information on commercial providers, necessary for effective regulation, are typically limited in developing countries. There is often poor awareness of existing regulation amongst commercial providers, and communication of regulatory requirements is often limited (Stenson 1997; Kumaranayake 2000). There is also little evidence of the involvement of commercial sector organizations or representatives of professional associations in regulatory processes. Whilst there is a common view that the commercial sector provides a better quality of health care, the evidence on this remains unclear, and significant problems with quality, opportunistic behaviour, and malpractice in the commercial sector have been observed (Patouillard et al. 2007; Bloom et al. 2009).

Economic regulation seeks to control variables such as price, quantity, quality, and competition in market transactions. The quality dimension in this equation needs further clarification. It is fostered by minimum standards of service delivery. Standardization, as we have explained earlier, belongs to the social regulation domain. Achieving the latter is riddled with complexities and challenges. There are few examples in the literature of price control or effective policies to manage competition between commercial providers or to develop consumer protection laws. India has introduced such an act, The Consumer Protection Act 1986, but this has been poorly implemented, with little response to complaints by consumers against health care providers (Bhat 1999). Below par implementation leaves behind a lot of questions and has a negative influence on future plans too when it comes to a sector as onerous and demanding as health.

Historically, medical professionals and their associations have been self-regulating (Jacobson 2001). In developing countries, medical professionals commonly dominate ministries and departments of health and may themselves be instrumental in the designing of health policy and healthcare regulation. The regulation of the medical profession is difficult and generally requires self-regulation through the involvement of medical associations (WHO 2000). The main regulatory instruments used by the state are licensing and registration of professionals. The quality of education, training, and continued professional development of doctors is
poorly monitored and generally delegated to professional associations. Nevertheless, medical associations can play an important role in controlling standards and quality, implementing professional standards, codes of conduct, medical ethics, accreditation, and continued professional development, all of which can influence the behaviour and quality of providers. However, much better results can be acquired by independent regulating organizations with well-defined mandates, underpinned by legislation. The examples in this context are the Punjab Healthcare Commission in Pakistan and the Private Health Services Regulatory Council in Sri Lanka.

The combination of poor government salaries and the growth of the commercial sector has increased the preference of medical and allied health professionals to move into private hospital facilities and clinics (WHO 2000). Private providers, therefore, increasingly compete with the public sector for both human resources and patients, and in many countries, the same providers move between public and private practice. Private practice amongst public sector health workers is very high in developing countries with low regulation (Kiwanuka et al. 2011). This has an impact on equity, efficiency, and availability of services in public facilities and is a considerable problem in South Asia (Dussault 2008). The impact of dual practice depends on the regulatory framework. This, basically, falls in the domain of economic regulation, in which South Asian learning curves are clearly underdeveloped. Monitoring for regulation in South Asia capacity is usually inconsistent and does not augur well for effective regulation. Questions are raised about the capacity regarding operational efficiency and the competence of officers responsible for regulation and quality (Momina et al. 2016). Monitoring, as a component of regulation, in the maternal and reproductive healthcare area is more challenging and needs greater capacity and perseverance. Pakistan and India, being federations, have had multilayered governance structures which in turn has led to complications for regulation in the health sector.

Regulatory organizations can start working at cross purposes, and this happens primarily when regulation is left to professional associations instead of regulatory authorities or commissions, as has happened in India (Peters and Muraleedharan 2008). Professional associations do tend to promote or safeguard narrow professional, cliquish, or even parochial interests. The private stakeholders have an aversion to regulation. Whatever its origins, orientation, or dispensation, regulation in the health sector is dominated by the state. The private sector resents this, in particular, regulation which has an economic and profit curtailing focus. We also need to consider that transaction costs can get out of hand. The maternal health area is multidimensional and has several cross-cutting themes associated with it. Enforcement costs of regulation inevitably go up in such a situation, thus giving rise to the question of perceived benefits of costly enforcement of health regulation in resource-poor countries (Ensor and Weinzierl 2007). Cost of regulation includes, but is not limited due to its transactive nature, to the cost of (i) data collection, (i) inspection, and (iii) monitoring. Regulation requires skilled personnel and dedicated departments or units, appropriately equipped to enforce rules (Akhtar 2011). Looking at the entire gamut of maternal healthcare interventions, already enlisted
lucidly in our discourse above, it can be safely inferred that costs of regulatory enforcement can only be ignored at our own peril.

Maternal and reproductive health has cross-sectoral linkages with education and human development and also poverty reduction. These linkages, though not germane to regulation, need to be understood and factored in the purposes of clarity and precision. Without having developed the requisite and sufficient capacity, venturing into health regulation is fraught with serious risks and bound to cause major failures. Ambitious regulatory efforts can also fall short or underachieve because of the lack of resources to implement them. In particular, as we move to the higher-end service delivery, like that in the tertiary care hospitals, efforts for the accreditation of public and private hospitals are clearly cost-intensive. Nandraj cites a pertinent example in this case from India in which lack of resources to finance the accreditation system became the obstacle in its implementation, despite mass support for it from the public and other stakeholders (Nandraj et al. 2001). Lack of communication about regulation itself is pervasive, and most practitioners have little or no knowledge about its rationale. Fudged or engineered data has been a perpetual problem which has created severe constraints for the already demanding process of regulation. Maternal mortality rates (MMR) and contraceptive prevalence rates (CPR) are questioned quite often in South Asia due to the lack of veracity historically. Geographical disparities and variations in terms of capacity both on providers and purchasers side across regions of South Asia are also a major issue that has beset traditional regulation. The capacity at bigger and main urban centres cannot be equated with that in the peripheral towns and more so with villages. Within South Asia, the disparities have urban and rural dimensions.

The institutions of the state, no matter how well-equipped they may be, are beset with issues of organizational and management capacity in health sector regulation. And when it comes to the maternal and reproductive health sub-sectors, the capacity deficit exacerbates as the number of providers from the market, and the civil society is much bigger. This is central to the very theme and imperatives of regulation. Any regulatory effort devoid of independence and operational autonomy will be misleading and self-deluding and will underachieve inevitably. Nunes, Rego, and Brandao in their paper evaluated if independent healthcare regulation is a significant tool with respect to the creation of fair processes for setting desirable limits to health care. They argue that in publicly financed healthcare systems, independent regulation is an important instrument to ensure fair and reasonable procedures of prioritizing services (Nunes et al. 2009). In accordance with the principle of public accountability, independent regulatory agencies are particularly well-suited to accomplish the onerous mandate of regulation. The authors conclude by emphasizing the “social task” of assuring that rationales of “limit-setting decisions” are clearly and tangibly recorded so as to be accessible to the public.

Most regulation globally has tended to focus on controlling the entry of health professionals and organizations into the market through registration and licensing (Doherty 2015). Most countries have not been able to develop sufficient legislation or other regulatory measures to control behaviour by private providers in terms of coverage, quality, distribution, and price and tend to rely on self-regulation.
primarily backed up by sanctions imposed by health professional councils against the more extreme cases of inappropriate practice. This, for obvious reasons, is a recipe for underperformance. Whilst several developing countries have ventured into updating and improving their legislations, in most cases, the progress and the remaining problems are much the same as identified years ago (Doherty 2015).

Given the limitations of business-as-usual models, a newer and more inclusive approach, with innovations, is obviously called for. A few workable and tested approaches will be discussed in the rest of this section. Responsive regulation attempts to move beyond the ideological debate that views market and state relations as a dichotomy (Ayres and Braithwaite 1995). This approach is based on an understanding that the best regulatory strategies depend essentially on context, regulatory culture, and history. It accepts that, with the emergence of new actors in regulation and policy, command and control models of regulation have become questionable if not outright redundant. More importantly, this school of thought believes that single regulatory instruments are seldom effective and that clearly different approaches are needed (Healy and Braithwaite 2006). It is an approach that values trust, transparency, and professionalism. It aims to reduce the polarized choice between punishment and persuasion, with punishment applying more to anti-quackery.

Braithwaite has argued that developing countries are “more lacking in all the capacities” required to make responsive regulation work well compared to the developed and wealthy economies (Healy and Braithwaite 2006). Braithwaite asserts that two new strategies are needed for networked governance to address these capacity deficits, in which governance efforts are not top-down, but collaborative (Healy and Braithwaite 2006). One is based on the pyramidal escalation of network branching, and the second is legislating for qui tam actions or bounty hunting by whistle-blowers. The crucial difference between the old “Command and Control” view is that governments are increasingly “steering (instead of rowing)” and are seeking flexible, participatory, and devolved forms of regulation. In another vein, decentralized regulation is a reaction to the statist, centralized model. It expands the regulatory effort beyond the state and makes it more inclusive. It does not have a predilection for control; rather, it aims to “influence” the behaviour of actors. It complements decentralized regulation most appropriately. Consultation with civil society networks or consumer groups is advised to the health providers. It is dubbed as the move away from traditional reactive model rooted in “minimum standards”, where we only act when something goes wrong and are interested in things which are “illegal” (Dickson 2016).

Maternal and child health needs all forms of regulation in some modicum. The “Command and Control” form is useful in anti-quackery efforts, whereas “meta-regulation” and “self-regulation” can be of immense utility in hospitals and maternal healthcare centres. Ultimately, South Asia requires a responsive regulation, which may opt for a range of regulatory options. The pyramid model recommended by Healy and Braithwaite is an attempt to solve the puzzle as to when to persuade and when to punish (Healy and Braithwaite 2006). A regulator begins with persuasion, through a dialogue-based approach for securing compliance with a just rule or
standard and by invoking informal rewards rather than sanctions. The persuasion approach is considered a “soft approach,” which has modest expectations attached to it, especially in a developing country context. Thus, at times, more demanding strategies are invoked, through which everyone is informed and conscious that non-compliance may result in alternative strategies.

Persistent infractions or infringements may eventually elicit repeat inspections and public disclosure of failure to meet standards, in which case referral to support services or mentoring should be offered and employed. Continued and serious breaches of the regulatory guidelines may incur financial penalties, leading to activities and interventions being curtailed or disbanded. Deregistration of a doctor or a medic, license removal or suspension, and outright closure of the hospital or health facility are cited as last resorts and signal the failure of both parties to ensure that the public is well served. Some argue that the private health sector understands only the “bottom line” profit and therefore must be punished for violations or infringements when their performance is subjected to regulation. Others assert that the private sector can be persuaded. Both the positions, the truth is, are valid depending on the context and prevailing conditions. Neither consistent punishment nor consistent persuasion has proven effective over the long term. Consistent punishment is too costly, and consistent cajoling of the incorrigibly unethical or incompetent is naïve. It has also been noted with concern that regulators who were consistently “tolerant and understanding” ended up increasing non-compliance (Makkai and Braithwaite 1994). This, inevitably, is also a common practice in developing countries and in South Asia.

Maternal health is an area of specialization that needs a very high level of diligence and commitment. The maternal mortality figures across the South Asian countries, excluding Sri Lanka, are a telltale of the struggle that was encountered or is being encountered in turning the situation around. Different facets of maternal health care require different interventions and different levels of effort. The poignancy and pathos attached with maternal health indicators draw governments a lot of flak and criticism. The most noticeable fact to have emerged in health sectors of several developing countries and pretty much all the South Asian countries is that of co-production. Co-production has been acknowledged as a reality and has assumed the dimensions of a need. Co-production is the provision of public services, broadly defined to include regulation, through an institutionalized, long-term relationship between state agencies and organized groups of citizens, where both make substantial resource contributions. It is in keeping with the paradigm of “governance”. Governance is the paradigmatic framework wherein the triangle for development and public policy gets completed—the state at the apex, the market, and the civil society. Co-production, for obvious reasons, requires a special effort when it comes to health regulation. Decentralized regulation involves a shift away from the state as the sole regulator. It expands regulatory activities to actors and measures beyond the state and “delimits” regulation as an act of control to a range of activities and mechanisms that can influence the behaviour of actors (Black 2002).

Proponents of decentralized regulation identify reasons why traditional regulation systems have failed in the health sector, which will be discussed in the rest of
this section (Akhtar 2011). The collapse of the public-private distinction presents a real challenge for regulation because it calls into question the very role of formal authorities. Within an overlapping public-private system, hybrid organizations and networks combine governmental and non-governmental actors in different manners. In this environment, regulation becomes a product of activity conducted by these mixed systems. This situation has led to the emergence of co-regulation as a strategic choice. Fragmentation of knowledge, power, and control goes further and deeper than mere information asymmetry (Akhtar 2011). It goes without saying that no single actor can ever have the knowledge or information required to solve complex problems. Therefore, no single actor can employ the instruments necessary to regulate. Fragmentation of power means that different actors hold different levels and degrees of power, and the government does not have a monopoly on power. Instead, power is dispersed amongst the state and other actors in the triangular relationship, with the state at the apex and the other two sides of the triangle being occupied by the market (commercial sector) and the civil society.

The health system is complex, to the extent that it can befuddle people with its intricacies. The process of interaction between the various components and actors is dynamic and imperfectly understood. Actors have diverse goals, norms, and power, and they harbour their own intentions (Akhtar 2011). This complexity needs to be torn down. Regulation can help to bring in the elusive clarity, which is so very vital for improving the state of affairs in the critical and highly sensitive area of maternal health. Actors will continue to behave as they wish in the absence of intervention. Actors and systems are therefore often self-regulating (Akhtar 2011). Interventions will have good and bad unintended effects, and no single actor can dominate the regulatory process because of the autonomy of the other actors. This is how delicately the health system is structured. Furthermore, actors and systems do have the capacity to regulate themselves competently enough, and this capacity should be harnessed to be made more effective.

The decentralized approach to regulation allows for the non-state actors, networks, and the health sector associations to interact in dual roles as regulators and the regulated. They are involved in co-producing regulation that may not be bureaucratic instruments aimed at control over economic and social activities, but milder and subtler ways of organizing and exchanging information to influence behaviour and regulatory outcomes. Decentralized regulation, therefore, becomes a strategic approach that can be utilized by the state to implement a range of regulatory strategies. Akhtar (2011), however, maintains that it does not need to be the sole agent working on regulation, detecting deviations and violations and enforcing rules. The health sector has its own peculiarities: maternal health even more so. We need to imbibe constructs from the typology of public policy too. One of the types of public policy is regulatory policy. It is further classified into competitive regulatory policy and protective regulatory policy. Both these categories can assist in regulating the maternal health sub-sector very well. Competitive regulatory policy is designed to limit the provision of goods and services to a few designated deliverers, who are chosen from a larger number of competing potential deliverers.
Protective regulatory policies seek to protect the public and consumers from market problems, such as deceptive advertising (from quacks, for instance), faulty products (spurious drugs), or negative externalities (e.g. pollution). There are several examples from South Asian countries with regard to registration of healthcare professionals. Putting barriers to enter a profession is like raising a bar with a view to ensuring the availability of skilled workforce and preventing the incidence of quackery. This becomes even more sensitive given the mandate and dimensions of maternal health care and the dependency of South Asian women on community providers. Thus, for the region, the registration of community midwives and community health workers is critical. The effort at registration and licensing of hospitals through the vehicle of Minimum Service Delivery Standards (MSDS) has been a good start and has taken the health sector regulation to a much higher level in the developed world. This effort needs to be documented assiduously and tracked for uniformity across all the spaces of South Asia to ensure comprehensive regulatory policy.

9.4 Maternal and Reproductive Health: Situation Analysis and Regulation Needs

Maternal and reproductive health statistics of South Asian countries make interesting but mostly perturbing reading. Sri Lanka has been the outlier in many respects, having traditionally done well for maternal health services. Data from Tables 9.1 and 9.2 tells us that there is critical need to reduce MMR and increase CPR. This requires monitoring and regulation of antenatal care deliveries conducted at health facilities, deliveries conducted by skilled birth attendants (SBAs), and improved postnatal care. Also, important to be kept under observation are the limitation in services, such as: (i) outreach services for family planning services and (ii) advocacy and behaviour change communication material. This multipronged regulation effort requires an array of stakeholders and not just state actors alone. We can read

| Country    | MMR | CPR |
|------------|-----|-----|
| Pakistan   | 178 | 34% |
| India      | 174 | 50% |
| Bangladesh | 176 | 62% |
| Sri Lanka  | 30  | 65% |
| Nepal      | 258 | 53% |

Source: Data for this table has been retrieved from publicly available data sets of the Demographic Health Surveys and Family Health Surveys of Pakistan (2017–2018)
from Table 9.1 that the maternal mortality rate (MMR) for South Asian states is very high. Nepal, Pakistan, Bangladesh, and India lead the dismal statistics by 258, 178, 176, and 174 maternal deaths per 100,000 live births, respectively. Contraception prevalence rates (CPR) are low in Pakistan, India, and Nepal, at 34%, 50%, and 53%, respectively.

Table 9.2 helps to explain both critical issues of high MMR and low CPR, with respect to variables of birth at healthcare centres, delivery by skilled birth attendants, and antenatal and postnatal health care. We can read that Sri Lanka’s success in reducing MMR is mainly due to very high incidence of births at healthcare centres, delivery by skilled birth attendants, and antenatal and postnatal health care access. Conversely, Bangladesh, Nepal, and Pakistan, at 37%, 57%, and 66%, respectively, have fewer women delivering at a healthcare facility and more women delivering in their homes.

For Tables 9.3, 9.4, and 9.5, we have used publically available health data sets for women of South Asia. Data collected in Demographic and Health Surveys (DHS) includes samples across Bangladesh, India, and Pakistan of women of reproductive ages, from 15 to 49 years. We were unable to analyze data from other South Asian states due to lack of data all together or lack of available date in recent years. In Table 9.3, we present chi-square associations between possession of health card for child vaccination and dependent socio-demographic and health behaviour variables of Bangladeshi women. Though our aim in this analysis was to keep health insurance as a dependent variable, this variable was missing in the Bangladesh DHS. This may imply that a significant number of women do not have health insurance in Bangladesh, as suggested by other literature (Joarder et al. 2019). Also included in the missing variable list, in our analysis for India and Pakistan, are house and land ownership. The sample of Bangladesh women who had a health card for child immunization was N = 6,680, of which N = 422 “do not have a health card” and N = 6,258 “have a health card”.

Majority of sampled women in Bangladesh are from the poor or middle class (59.0%), belong to the rural areas (67.6%), and are not working (73.0%). Demographically, it is important that the public healthcare system is geared to support the disadvantaged women of Bangladesh. Majority of women visited a prenatal doctor (58.9%), but majority also delivered their baby at home (60.0%). The results imply that possibly after women have been told by trained practitioners that their

Table 9.2 Maternal health indicators for South Asian countries

| Country | Births at health facility | Deliveries conducted by SBAs | Antenatal care | Postnatal care |
|---------|--------------------------|-----------------------------|----------------|----------------|
| Pakistan | 66%                      | 69%                         | 86%            | 62%            |
| India   | 79%                      | 85.1%                       | 84%            | 67.5%          |
| Nepal   | 57%                      | 42%                         | 84%            | 36%            |
| Bangladesh | 37%                    | 58%                         | 64%            | 57%            |
| Sri Lanka | 99.5%                   | 99.5%                       | 99%            | 99%            |

Source: Data for this table has been retrieved from publically available data sets of the Demographic Health Surveys and Family Health Surveys of Pakistan (2017–2018)
### Table 9.3  
Chi-square associations between possession of health card for child vaccination and dependent variables of Bangladeshi women of reproductive age, N = 6680; do not have a health card (HC) = 422; has or had a health card (HC) = 6258

| Variable | Total women | No HC | With HC | Chi square | P value |
|-----------|-------------|-------|---------|------------|---------|
| **Age in 5-year groups** | | | | | |
| 15–19 | 15.3% | 1.2% | 14.2% | 31.03 | 0.029 |
| 20–24 | 33.1% | 2.0% | 31.1% | | |
| 25–29 | 27.5% | 1.6% | 25.9% | | |
| 30–34 | 15.8% | 0.9% | 14.9% | | |
| 35–39 | 6.3% | 0.4% | 5.9% | | |
| 40–44 | 1.5% | 0.1% | 1.4% | | |
| 45–49 | 0.4% | 0.1% | 0.4% | | |
| | 100.0% | 6.3% | 93.7% | | |
| **Type of place of residence** | | | | | |
| Urban | 32.4% | 1.5% | 30.9% | 41.23 | 0.000 |
| Rural | 67.6% | 4.8% | 62.8% | | |
| | 100.0% | 6.3% | 93.7% | | |
| **Region** | | | | | |
| Barisal | 12.0% | 0.5% | 11.5% | 246.674 | 0.000 |
| Chittagong | 18.7% | 1.3% | 17.4% | | |
| Dhaka | 17.9% | 0.6% | 17.3% | | |
| Khulna | 11.3% | 0.6% | 10.7% | | |
| Rajshahi | 12.5% | 0.6% | 12.0% | | |
| Rangpur | 12.8% | 0.4% | 12.4% | | |
| Sylhet | 14.7% | 2.2% | 12.5% | | |
| | 100.0% | 6.3% | 93.7% | | |
| **Highest educational level** | No education | 15.0% | 1.8% | 13.1% | 137.12 | 0.000 |
| Primary | 27.2% | 1.9% | 25.3% | | |
| Secondary | 46.7% | 2.1% | 44.6% | | |
| Higher | 11.2% | 0.5% | 10.7% | | |
| | 100.0% | 6.3% | 93.7% | | |
| **Wealth index** | Poorest | 20.8% | 2.1% | 18.7% | 122.70 | 0.000 |
| Poorer | 18.7% | 1.4% | 17.3% | | |
| Middle | 19.5% | 1.2% | 18.3% | | |
| Richer | 20.7% | 1.0% | 19.6% | | |
| Richest | 20.3% | 0.6% | 19.7% | | |
| | 100.0% | 6.3% | 93.7% | | |
| **Occupation** | Not working | 73.0% | 4.8% | 68.2% | 82.6 | 0.000 |
| Professional/technical/managerial | 2.2% | 0.1% | 2.1% | | |
| Sales | 1.9% | 0.1% | 1.8% | | |
| Agricultural – self employed | 0.6% | 0.0% | 0.5% | | |
| Agricultural – employee | 11.3% | 0.6% | 10.7% | | |
| Household and domestic | 1.6% | 0.2% | 1.5% | | |

(continued)
pregnancy is normal, they do not opt for institutional deliveries. Nearly all mothers of Bangladesh indicated that their child was average or small at birth (87.0%), implying that there is great need for regulation for prenatal health of the mother to reduce the incidence of small size at birth and also child stunting in the country. We found that all chi-square results were significant, implying that all these variables of socio-demographic and health indicators have a significant association with having a health card in women of Bangladesh.

| Variable                  | Total women | No HC | With HC | Chi square | P value |
|---------------------------|-------------|-------|---------|------------|---------|
| Services                  | 2.1%        | 0.2%  | 1.9%    |            |         |
| Skilled manual            | 7.3%        | 0.3%  | 7.1%    |            |         |
| Unskilled manual          | 0.0%        | 0.0%  | 0.0%    |            |         |
| Number of children        |             |       |         |            |         |
| 1–2                       | 68.6%       | 3.4%  | 65.2%   | 143.72     | 0.000   |
| 3 or more                 | 31.4%       | 3.0%  | 28.5%   |            |         |
| Prenatal: doctor          |             |       |         |            |         |
| No                        | 41.1%       | 4.5%  | 36.6%   | 42.72      | 0.000   |
| Yes                       | 58.9%       | 3.6%  | 55.3%   |            |         |
| Place of delivery         |             |       |         |            |         |
| Respondent’s home         | 60.0%       | 5.7%  | 54.3%   | 58.22      | 0.004   |
| Public hospital           | 3.6%        | 0.2%  | 3.4%    |            |         |
| District hospital         | 3.1%        | 0.3%  | 2.7%    |            |         |
| Maternal and child welfare centre | 2.8%           | 0.1%  | 2.7%    |            |         |
| Upazila health complex    | 3.6%        | 0.2%  | 3.4%    |            |         |
| Upazila health and family welfare centre | 0.5%               | 0.0%  | 0.4%    |            |         |
| Other public sector       | 0.0%        | 0.0%  | 0.0%    |            |         |
| Community clinic          | 0.0%        | 0.0%  | 0.0%    |            |         |
| Private hospital/clinic   | 23.2%       | 1.3%  | 22.0%   |            |         |
| NGO static clinic         | 2.8%        | 0.3%  | 2.5%    |            |         |
| Other NGO sector          | 0.2%        | 0.0%  | 0.2%    |            |         |
| Other                     | 0.1%        | 0.0%  | 0.1%    |            |         |
| Size of child at birth    |             |       |         |            |         |
| Very large                | 2.2%        | 0.0%  | 2.2%    | 19.89      | 0.069   |
| Larger than average       | 10.8%       | 0.8%  | 10.1%   |            |         |
| Average                   | 67.7%       | 5.1%  | 62.5%   |            |         |
| Smaller than average      | 12.9%       | 1.5%  | 11.5%   |            |         |
| Very small                | 6.3%        | 0.7%  | 5.6%    |            |         |

Source: Data for this table has been retrieved from the publically available data sets of the Demographic Health Survey of Bangladesh (2014–2015)
Table 9.4  Chi-square associations between health insurance and dependent variables of Indian women of reproductive age, N = 699,686; not covered by Health Insurance (HI) = 574,718; covered by Health Insurance (HI) = 124,968

| Variable                        | Total | No HI | With HI | Chi square | P value |
|---------------------------------|-------|-------|---------|------------|---------|
| Age in 5-year groups            |       |       |         |            |         |
| 15–19                           | 17.8% | 15.1% | 2.7%    | 3900.15    | 0.000   |
| 20–24                           | 17.6% | 15.0% | 2.5%    |            |         |
| 25–29                           | 16.4% | 13.8% | 2.7%    |            |         |
| 30–34                           | 13.9% | 11.3% | 2.6%    |            |         |
| 35–39                           | 12.9% | 10.3% | 2.6%    |            |         |
| 40–44                           | 11.0% | 8.6%  | 2.3%    |            |         |
| 45–49                           | 10.4% | 8.0%  | 2.4%    |            |         |
| 100.0%                          | 82.1% | 17.9% |         |            |         |
| Type of place of residence      |       |       |         |            |         |
| Urban                           | 29.3% | 24.4% | 4.9%    | 298.61     | 0.000   |
| Rural                           | 70.7% | 57.7% | 13.0%   |            |         |
| 100.0%                          | 82.1% | 17.9% |         |            |         |
| State                           |       |       |         |            |         |
| Andaman and Nicobar Islands     | 0.4%  | 0.4%  | 0.0%    | 161846.11  | 0.000   |
| Andhra Pradesh                  | 1.5%  | 0.4%  | 1.0%    |            |         |
| Arunachal Pradesh               | 2.0%  | 0.9%  | 1.1%    |            |         |
| Assam                           | 4.1%  | 3.9%  | 0.2%    |            |         |
| Bihar                           | 6.5%  | 6.0%  | 0.5%    |            |         |
| Chandigarh                      | 0.1%  | 0.1%  | 0.0%    |            |         |
| Chhattisgarh                    | 3.6%  | 1.2%  | 2.4%    |            |         |
| Dadra and Nagar Haveli          | 0.1%  | 0.1%  | 0.0%    |            |         |
| Daman and Diu                   | 0.2%  | 0.2%  | 0.0%    |            |         |
| Goa                             | 0.2%  | 0.2%  | 0.0%    |            |         |
| Gujarat                         | 3.3%  | 2.7%  | 0.6%    |            |         |
| Haryana                         | 3.1%  | 3.0%  | 0.1%    |            |         |
| Himachal Pradesh                | 1.4%  | 1.2%  | 0.2%    |            |         |
| Jammu and Kashmir               | 3.4%  | 3.4%  | 0.0%    |            |         |
| Jharkhand                       | 4.2%  | 3.8%  | 0.3%    |            |         |
| Karnataka                       | 3.8%  | 2.9%  | 0.9%    |            |         |
| Kerala                          | 1.6%  | 0.9%  | 0.7%    |            |         |
| Lakshadweep                     | 0.2%  | 0.2%  | 0.0%    |            |         |
| Madhya Pradesh                  | 9.0%  | 7.9%  | 1.1%    |            |         |
| Maharashtra                     | 4.2%  | 3.9%  | 0.3%    |            |         |
| Manipur                         | 1.9%  | 1.9%  | 0.0%    |            |         |
| Meghalaya                       | 1.3%  | 0.9%  | 0.4%    |            |         |
| Mizoram                         | 1.8%  | 1.4%  | 0.4%    |            |         |
| Nagaland                        | 1.5%  | 1.5%  | 0.0%    |            |         |
| Delhi                           | 0.8%  | 0.8%  | 0.1%    |            |         |
| Odisha                          | 4.8%  | 2.9%  | 1.9%    |            |         |
| Puducherry                      | 0.6%  | 0.5%  | 0.1%    |            |         |

(continued)
Table 9.4  (continued)

| Variable                     | Total | No HI | Hi | Chi square | P value |
|------------------------------|-------|-------|----|------------|---------|
| Punjab                       | 2.8%  | 2.5%  | 0.3% |            |         |
| Rajasthan                    | 6.0%  | 5.3%  | 0.7% |            |         |
| Sikkim                       | 0.8%  | 0.6%  | 0.2% |            |         |
| Tamil Nadu                   | 4.1%  | 2.4%  | 1.7% |            |         |
| Tripura                      | 0.7%  | 0.3%  | 0.4% |            |         |
| Uttar Pradesh                | 14.0% | 13.6% | 0.4% |            |         |
| Uttarakhand                  | 2.5%  | 2.2%  | 0.3% |            |         |
| West Bengal                  | 2.5%  | 1.9%  | 0.7% |            |         |
| Telangana                    | 1.1%  | 0.4%  | 0.7% |            |         |

|                    | 100.0% | 82.1% | 17.9% |
|--------------------|--------|-------|-------|
| Highest educational |        |       |       |
| level              |        |       |       |
| No education       | 28.1%  | 23.2% | 4.9%  | 294.86  | 0.000  |
| Primary            | 12.6%  | 10.1% | 2.5%  |        |        |
| Secondary          | 47.9%  | 39.4% | 8.5%  |        |        |
| Higher             | 11.4%  | 9.4%  | 2.0%  |        |        |

| Wealth index       |         |       |       |
|--------------------|---------|-------|-------|
| Poorest            | 19.0%   | 15.8% | 3.3%  | 1003.44| 0.000  |
| Poorer             | 21.4%   | 17.4% | 3.9%  |        |        |
| Middle             | 21.0%   | 16.9% | 4.1%  |        |        |
| Richer             | 19.8%   | 16.2% | 3.6%  |        |        |
| Richest            | 18.8%   | 15.9% | 2.9%  |        |        |

| Occupation         |         |       |       |
|--------------------|---------|-------|-------|
| Not in workforce/no| 69.6%   | 10.2% | 2.0%  | 294.86  | 0.000  |
| occupation         |         |       |       |        |        |
| Professional/technical/managerial | 2.8%  | 0.4%  | 0.1%  |        |        |
| Clerical           | 0.4%    | 0.0%  | 0.0%  |        |        |
| Sales              | 1.5%    | 0.2%  | 0.1%  |        |        |
| Agricultural       | 15.1%   | 2.0%  | 0.6%  |        |        |
| Services/household and domestic | 3.3%  | 0.4%  | 0.2%  |        |        |
| Manual – skilled and unskilled | 6.2%  | 0.8%  | 0.3%  |        |        |
| Don’t know          | 1.1%    | 0.2%  | 0.0%  |        |        |

| Total children      |         |       |       |
|--------------------|---------|-------|-------|
| None               | 31.9%   | 26.8% | 5.1%  | 2072.87 | 0.000  |
| 1–3                | 36.0%   | 29.0% | 7.0%  |        |        |
| 3 or more          | 32.2%   | 26.3% | 5.8%  |        |        |
|                    | 100.0%  | 82.1% | 17.9% |        |        |

| Household has electricity | None |         |       |
|---------------------------|------|---------|-------|
| No                        | 10.4%| 9.3%    | 1.1%  | 3225.96| 0.000  |
| Yes                       | 86.4%| 70.1%   | 16.3% |        |        |
| Not a de jure resident    | 3.2% | 2.8%    | 0.4%  |        |        |

|                    | 100.0% | 82.1% | 17.9% |
|--------------------|--------|-------|-------|

(continued)
Table 9.4  (continued)

| Variable                                           | Total       | No HI | With HI | Chi square | P value |
|----------------------------------------------------|-------------|-------|---------|------------|---------|
| Owns a house alone or jointly                      |             |       |         |            |         |
| Alone only                                         | 61.2%       | 8.8%  | 1.9%    | 1023.08    | 0.000   |
| Jointly only                                       | 17.0%       | 2.4%  | 0.5%    |            |         |
| Both alone and jointly                             | 12.4%       | 1.8%  | 0.3%    |            |         |
| 100.0%                                             | 14.2%       | 3.2%  |         |            |         |
| Owns land alone or jointly                         |             |       |         |            |         |
| Alone only                                         | 69.8%       | 10.0% | 2.2%    | 725.33     | 0.000   |
| Jointly only                                       | 13.6%       | 1.9%  | 0.4%    |            |         |
| Both alone and jointly                             | 10.1%       | 1.5%  | 0.3%    |            |         |
| 100.0%                                             | 14.2%       | 3.2%  |         |            |         |
| Prenatal: doctor                                   |             |       |         |            |         |
| No                                                 | 45.5%       | 11.0% | 1.5%    | 932.87     | 0.000   |
| Yes                                                | 54.5%       | 12.4% | 2.5%    |            |         |
| 100.0%                                             | 23.3%       | 3.9%  |         |            |         |
| Place of delivery                                  |             |       |         |            |         |
| Respondent’s home                                  | 19.8%       | 4.7%  | 0.7%    | 404.92     | 0.000   |
| Other home                                         | 0.2%        | 0.1%  | 0.0%    |            |         |
| Parents’ Home                                      | 2.1%        | 0.5%  | 0.1%    |            |         |
| Public: Govt./Municipal Hospital                    | 25.0%       | 5.8%  | 1.1%    |            |         |
| Public: Govt. Dispensary                           | 1.7%        | 0.4%  | 0.1%    |            |         |
| Public: UHC/UHP/UFWC                               | 1.5%        | 0.4%  | 0.1%    |            |         |
| Public: Rural Hospital                             | 18.5%       | 4.3%  | 0.7%    |            |         |
| Public: PHC/Additional PHC                         | 7.3%        | 1.7%  | 0.3%    |            |         |
| Public: Sub-Centre                                 | 1.2%        | 0.3%  | 0.1%    |            |         |
| Other Public Sector Facility                       | 0.1%        | 0.0%  | 0.0%    |            |         |
| Private: Hospital/Clinic                           | 21.3%       | 5.0%  | 0.8%    |            |         |
| Other Private Sector Facility                      | 0.5%        | 0.1%  | 0.0%    |            |         |
| NGO or Trust Hospital/Clinic                       | 0.5%        | 0.1%  | 0.0%    |            |         |
| Other                                              | 0.2%        | 0.1%  | 0.0%    |            |         |
| 100.0%                                             | 23.3%       | 3.9%  |         |            |         |
| Size of child at birth                             |             |       |         |            |         |
| Very large                                         | 5.1%        | 1.2%  | 0.2%    | 327.83     | 0.000   |
| Larger than average                                | 12.4%       | 2.8%  | 0.6%    |            |         |
| Average                                            | 68.4%       | 16.0% | 2.6%    |            |         |
| Smaller than average                               | 9.0%        | 2.1%  | 0.3%    |            |         |
| Very small                                         | 2.9%        | 0.7%  | 0.1%    |            |         |
| Don’t know                                         | 2.1%        | 0.5%  | 0.1%    |            |         |

(continued)
In Table 9.4, we present the chi-square associations between health insurance and dependent socio-demographic and health behaviour variables of Indian women. The sample of women from India is $N = 699,686$, of which $N = 574,718$ are “not covered by health insurance” and $N = 124,968$ are “covered by health insurance. Findings confirm that majority women of India are not covered by health insurance and instead rely on out-of-pocket finances for health. Majority of women are from the poor or middle class (61.4%), belong to the rural areas (70.7%), and are not working (69.6%). Majority of women do not own houses (61.2%) or land (69.8%), and results imply a major problem in ownership and empowerment for women in the country. Like in Bangladesh, the Indian healthcare infrastructure and policy need to be oriented to support majority disadvantaged women in the country. India is a large country with great provincial and ethnic diversity, and the equity of health-care services for women across different states must also be a major consideration for policymakers. Only 54.5% of women have taken assistance from a trained doctor during prenatal period, but unlike Bangladesh, fewer Indian women are delivering their child at home (22.1%). A near majority of women feel their child was of average or small size at birth (80.3%). All chi-square results were highly significant, suggesting that having or not having health insurance is associated with socio-demographic and health characteristics in mothers.

Table 9.5 presents chi-square associations between health insurance and dependent socio-demographic and health behaviour variables of Pakistani women. The sample for the Pakistan DHS is $N = 15,066$, with $N = 14,748$ “not covered by health insurance” and $N = 318$ “covered by health insurance”. Findings confirm dismal figures of nearly all women being deprived of health insurance. Majority of the sample belong to the poor or middle class (60.4%), are from rural areas (51.9%), and are not working (84.6%). Nearly all women do not own houses or land at 97.0% and 98.0%, respectively. Our findings imply there is great need to improve state-level awareness for property rights of women and also legally enforce property rights. The statistics suggest that possibly religious laws are not being followed with regard to wealth distribution amongst daughters, wives, and widows. Compared to Bangladesh and India, majority women of Pakistan are not educated (50.6%), and majority have three or more children (58.6%). The implications are that in Pakistan there is critical need for increasing educational opportunities for women and also improving family planning policies to control population explosion. A considerable number of women at 20.5% do not visit a licensed doctor during the prenatal period and 32.8% of women deliver their children in homes. Nearly all women indicated that their child was of either average of small size when born (91.8%).

| Variable | Total | No HI | With HI | Chi square | P value |
|----------|-------|-------|---------|------------|---------|
|          | 100.0%| 23.3% | 3.9%    |            |         |

Source: Data for this table has been retrieved from the publically available data set of the Demographic Health Survey of India (2015–2016)
Table 9.5  Chi-square associations between health insurance and dependent variables of Pakistani women of reproductive age, N = 15,066; not covered by Health Insurance (HI) = 318; covered by Health Insurance (HI) = 14,748

| Variable                        | Total | No HI | With HI | Chi square | P value |
|---------------------------------|-------|-------|---------|------------|---------|
| **Age in 5-year groups**        |       |       |         |            |         |
| 15–19                           | 4.8%  | 4.8%  | 0.0%    | 55.66      | 0.000   |
| 20–24                           | 14.7% | 14.6% | 0.1%    |            |         |
| 25–29                           | 20.9% | 20.5% | 0.3%    |            |         |
| 30–34                           | 18.9% | 18.4% | 0.5%    |            |         |
| 35–39                           | 18.2% | 17.6% | 0.6%    |            |         |
| 40–44                           | 12.1% | 11.7% | 0.4%    |            |         |
| 45–49                           | 10.4% | 10.1% | 0.3%    |            |         |
|                                  | 100.0%| 97.9% | 2.1%    |            |         |
| **Type of place of residence**  |       |       |         |            |         |
| Urban                           | 48.1% | 47.0% | 1.2%    | 7.98       | 0.005   |
| Rural                           | 51.9% | 50.9% | 0.9%    |            |         |
|                                  | 100.0%| 97.9% | 2.1%    |            |         |
| **Region**                      |       |       |         |            |         |
| Punjab                          | 22.6% | 22.2% | 0.3%    | 257.66     | 0.000   |
| Sindh                           | 18.2% | 18.0% | 0.1%    |            |         |
| KPK                             | 15.8% | 15.2% | 0.6%    |            |         |
| Balochistan                     | 11.4% | 11.4% | 0.1%    |            |         |
| GB                              | 6.5%  | 6.0%  | 0.5%    |            |         |
| ICT                             | 7.4%  | 7.1%  | 0.2%    |            |         |
| AJK                             | 11.4% | 11.2% | 0.2%    |            |         |
| FATA                            | 6.7%  | 6.7%  | 0.0%    |            |         |
|                                  | 100.0%| 97.9% | 2.1%    |            |         |
| **Highest educational level**   |       |       |         |            |         |
| No education                    | 50.6% | 49.9% | 0.7%    | 151.2      | 0.000   |
| Primary                         | 14.0% | 13.7% | 0.2%    |            |         |
| Secondary                       | 20.8% | 20.5% | 0.3%    |            |         |
| Higher                          | 14.6% | 13.8% | 0.8%    |            |         |
|                                  | 100.0%| 97.9% | 2.1%    |            |         |
| **Wealth index combined**       |       |       |         |            |         |
| Poorest                         | 19.2% | 18.9% | 0.2%    | 40.35      | 0.000   |
| Poorer                          | 21.5% | 21.1% | 0.4%    |            |         |
| Middle                          | 19.7% | 19.3% | 0.4%    |            |         |
| Richer                          | 19.1% | 18.7% | 0.4%    |            |         |
| Richest                         | 20.5% | 19.8% | 0.7%    |            |         |
|                                  | 100.0%| 97.9% | 2.1%    |            |         |
| **Occupation**                  |       |       |         |            |         |
| Not working                     | 84.6% | 83.1% | 1.5%    | 283.05     | 0.000   |
| Professional/technical/managerial | 3.4% | 3.0%  | 0.4%    |            |         |
| Clerical                        | 0.1%  | 0.1%  | 0.0%    |            |         |
| Sales                           | 0.5%  | 0.5%  | 0.0%    |            |         |
| Agricultural— self employed     | 3.4%  | 3.4%  | 0.0%    |            |         |

(continued)
Table 9.5 (continued)

| Variable                                      | Total | No HI | With HI | Chi square | P value |
|-----------------------------------------------|-------|-------|---------|------------|---------|
| Services                                      | 1.9%  | 1.9%  | 0.0%    |            |         |
| Skilled manual                                | 5.3%  | 5.2%  | 0.0%    |            |         |
| Unskilled manual                              | 0.8%  | 0.8%  | 0.0%    |            |         |
|                                              | 100.0%| 97.9% | 2.1%    |            |         |
| Total children                                |       |       |         |            |         |
| None                                          | 12.9% | 12.8% | 0.2%    | 20.19      | 0.164   |
| 1–2                                           | 28.5% | 27.9% | 0.6%    |            |         |
| 3 or more                                     | 58.6% | 57.2% | 1.4%    |            |         |
| Owns a house alone or jointly                 |       |       |         |            |         |
| Does not own                                  | 97.0% | 95.1% | 2.0%    | 21.28      | 0.000   |
| Alone only                                    | 1.5%  | 1.5%  | 0.1%    |            |         |
| Jointly only                                  | 1.3%  | 1.2%  | 0.1%    |            |         |
| Both alone and jointly                        | 0.2%  | 0.1%  | 0.0%    |            |         |
|                                              | 100.0%| 97.9% | 2.1%    |            |         |
| Owns land alone or jointly                    |       |       |         |            |         |
| Does not own                                  | 98.0% | 96.0% | 2.0%    | 28.29      | 0.000   |
| Alone only                                    | 1.0%  | 1.0%  | 0.1%    |            |         |
| Jointly only                                  | 0.8%  | 0.8%  | 0.0%    |            |         |
| Both alone and jointly                        | 0.1%  | 0.1%  | 0.0%    |            |         |
|                                              | 100.0%| 97.9% | 2.1%    |            |         |
| Prenatal: doctor                              |       |       |         |            |         |
| No                                            | 20.5% | 20.3% | 0.1%    | 18.03      | 0.000   |
| Yes                                           | 79.5% | 77.8% | 1.8%    |            |         |
|                                              | 100.0%| 98.1% | 1.9%    |            |         |
| Place of delivery                             |       |       |         |            |         |
| Respondent’s home                             | 30.3% | 29.9% | 0.4%    | 18.81      | 0.027   |
| Other home                                    | 2.5%  | 2.5%  | 0.0%    |            |         |
| Government hospital                           | 27.7% | 27.2% | 0.5%    |            |         |
| Rural health centre                           | 0.6%  | 0.6%  | 0.0%    |            |         |
| Basic health unit                             | 0.6%  | 0.6%  | 0.0%    |            |         |
| Community midwife                             | 0.2%  | 0.2%  | 0.0%    |            |         |
| Other public sector                           | 0.0%  | 0.0%  | 0.0%    |            |         |
| Private hospital/clinic                       | 37.9% | 36.9% | 1.0%    |            |         |
| Other private medical sector                  | 0.0%  | 0.0%  | 0.0%    |            |         |
| Other                                         | 0.2%  | 0.2%  | 0.0%    |            |         |
|                                              | 100.0%| 98.1% | 1.9%    |            |         |
| Size of child at birth                        |       |       |         |            |         |
| Very large                                    | 0.7%  | 0.7%  | 0.0%    | 3.77       | 0.582   |
| Larger than average                           | 7.1%  | 6.9%  | 0.2%    |            |         |
| Average                                       | 72.9% | 71.4% | 1.4%    |            |         |
| Smaller than average                          | 14.2% | 14.0% | 0.2%    |            |         |
| Very small                                    | 4.7%  | 4.6%  | 0.0%    |            |         |
| Don’t know                                    | 0.4%  | 0.4%  | 0.0%    |            |         |
|                                              | 100.0%| 98.1% | 1.9%    |            |         |

Source: Data for this table has been retrieved from the publically available data set of the Demographic Health Survey of Pakistan (2017–2018)
9.5 The Nuances and the Major Considerations

We found through the DHS data that maternal and child health indicators are not favourable in South Asia, with implications that there is a shortfall in state regulation. We also know from the earlier discussion in this chapter that the emergence of hybrid public-private and increasingly commercialized health systems requires a new level of thinking about regulatory approaches. A common view is that centralized control through the state is ineffective in regulating the commercial health sector adequately. A decentralized and more calibrated approach to regulation of health care in developing countries can be more effective (Akhtar 2011). A decentralized approach requires, as well as facilitates, commercial health providers and representatives to interact with civil society networks or consumer groups involved in co-regulation. This co-regulation-based approach would have benefits of (i) tackling information gaps, (ii) addressing fragmentation and ungovernability by accepting and adjusting for the interdependencies, (iii) reducing the differences and inequity between public and private, and (iv) negotiated agreement on roles and responsibilities between state and non-state actors.

The decentralized process would focus on a mix of regulatory strategies, such as market approaches, information disclosure, information exchange, standard setting, and consumer protection. It would also facilitate both the competitive and protective regulatory policies, especially the latter. From these strategies, information exchange systems and standard setting should be given priority because reliable information systems that capture the behaviour of market actors are often one of the most costly and complex activities for the state. These types of activities would define a different role and capacity for state authorities than is currently seen in many developing countries, requiring engagement and collaborative forums. Standard setting, as an instrument of regulation, requires deeper involvement of professional and specialist networks. Whilst standard-setting systems exist in many countries, including medical education standards, nursing standards, and medical associations setting standards of clinical care, these are in most of the cases poorly monitored. The question is how to make these standards work through the commercial sector and modify behaviour, particularly in the informal sector. Asking the market or the commercial sector to modify behaviour is mostly a futile effort given the trust and experience deficits. South Asia is a living example and testimony to these realities.

Coordination of the informal sector is difficult and, without incentives or collaborative forums, is unlikely to attract the involvement of informal providers. Incentive approaches come in different forms; the example of accreditation in Mumbai, India, showed that a commercial hospital seized the opportunity to become more competitive by becoming accredited, which sent a signal of quality to consumers. In this case, the lack of financing was the obstacle. But this is where the state can step in and support an enabling environment with collaboration from the commercial sector. Differences between developing countries also need to be considered. With lower institutional capacity, the developing countries are often constrained to seek support from development partners to develop regulatory frameworks. The
creation of the Punjab Healthcare Commission in Pakistan was undertaken through a technical assistance grant of the DFID, administered by the ADB under the Punjab Devolved Social Services Programmed.

There is a growing interest and promotion of market-based approaches to the scaling up of healthcare products for the poor, with international organizations such as the International Finance Corporation, World Bank, USAID, non-government organizations (NGOs), and donors, all seeking ways of harnessing the commercial health sector of developing countries. However, efforts to assist country partners in the development of regulatory frameworks and techniques are lagging. The reasons for this are not well documented, but may, in all likelihood, be due to the limited evidence of effective approaches. Evidence also indicates that there is a lack of investment in institutional capacity and seeking different ways of achieving regulatory outcomes. Consequently, the international actor’s actively promoting commercialization of the health sector should also provide investment for improved regulatory systems.

Experts believe that the timing of the implementation of regulatory frameworks needs to be closely matched with the growth of the commercial sector. Middle-income countries, which have substantial commercial sectors, may face more barriers to regulation due to the size and fragmentation of the sector. Given the size of the commercial sector, there may be several vested interests resisting the regulatory effort and advancements. Developing countries, on the other hand, may still be in a position to build regulatory capacity and systems that can appropriately regulate growing commercialized health systems before they reach the size of the commercial sector in middle-income countries (Akhtar 2011). Maternal health care is already quite fragmented in South Asian countries. Maternity centres and TBA outlets have registered mushroom growth in the length and breadth of Pakistan, India, and Bangladesh. Regulating such a multitude of centres is an enormous task and needs decentralized and co-regulation.

The regulation mandate in developed countries is shared by state and non-state institutions, which are working together in harmony. It is also evident that consumer groups and consumer information systems are in place. Actors are involved in dynamic processes that keep changing with the changes in the regulatory environment. On the other hand, these conditions are non-existent in developing countries. Therefore, the regulatory challenge is immense. We must also consider the serious consequences of unregulated healthcare markets in developing countries. They include rising inequities, further weakening and hollowing-out of the public sector, opportunistic behaviour, and poor quality or substandard care. Such eventualities undermine health objectives and can damage the weakest and the most vulnerable members of society, specifically women. Regulation of health care in developing countries should always maintain a culture of public interest and gender-based protection. Little empirical research on regulation of health care in developing countries exists. This, obviously, has implications. A great deal more in terms of research needs to provide evidence on low-cost, decentralized approaches that involve a legitimate blend or mix of regulatory strategies by state, non-state, and civil society actors. In addition to this, developing a more nuanced understanding of the
The growth of commercialized providers and dual practice is driving much of the failure in contemporary developing countries’ health systems. This poses serious challenges. More innovative approaches to regulation are needed in order to tackle traditions and legacy of lack of accountability and legitimized corruption in South Asia so that both public and private segments can start working effectively. Typical, run-off-the-mill approaches will not work, as we must consider that South Asian regulatory policies cannot just emulate the West, but must take into consideration traditional, cultural, and ethnic realities of the region. The decentralized approach of engaging with non-state sectors, using information exchange systems and standard setting can provide a useful way of thinking through regulatory reforms and implementing them purposefully. Scholars have suggested, for the Indian context, that the state must provide alternative approaches to regulation of health services, using the multisectoral and collaborative approaches (Peters and Muraleedharan 2008). Poor regulation is a symptom of poor governance essentially and enforces rules that continue to have limited effects and hamper the chances for positive strides in regulatory efforts. Collaborative mechanisms also promote accountability of all stakeholders and providers. Civil society organizations, the media, and provider organizations can play more active roles in disclosing and using information on the use of health resources and the performance as well as genuineness of public and private providers.

9.6 Concluding Recommendations

If the regulation of the existing maternal and reproductive health services in South Asia is improved, it will help to improve the regulatory challenge for gender equity across the health sector. Our analysis leads us to the conclusion that maternal and reproductive health stands to gain from an alteration in cultural assumptions for both competitive and regulatory policies, in the following three ways. Firstly, single regulatory instruments are seldom effective, and different approaches are required and advisable. With this in perspective, we are convinced about the utility of co-regulation in a decentralized manner. Secondly, complementing this will be responsive regulation. The latter needs to be employed strategically and cautiously as getting it right can be difficult. With all this working as a framework, we strongly recommend that the state must stay at the apex of the triangle—calling the shots and not abdicating its regulatory responsibility to the other actors in co-governance.

Lastly, there is great need for regulatory bodies to help raise awareness and provide solutions to reduce mother and child mortality risks, in relation to (I) poverty alleviation and formal sector work participation; (II) rural and urban slum development and provincial equity; (III) educational inclusion and skill development for adult women; (IV) universal health coverage; (V) family planning and population control; (VI) house, land, and asset ownership and inheritance rights; (VII) licensed
practitioner visitations and institutional checkups and deliveries; (VIII) use of technology and media for awareness, communication, and health access; (IX) improved licensing and accountability of practitioners to encourage healthcare utilization by licensed providers and also encourage customer demand; (X) improved regulation and accreditation of private providers and price ceilings for diagnostic tests and treatment services; (XI) improved budget allocation for public health sector infrastructure and salaries for human health resources to improved services and retention; (XII) increase recruitment for health regulation workforce and increase budget for regulatory infrastructure in order to improve: (a) data collection, (b) inspection, and (c) monitoring; (XIII) improve regulation for patient safety, hospital/center administration, and error reporting to encourage utilization of services; (XIV) regulation of dual practices of providers between the public and private sector to improve quality services of the public sector; and (XX) specific micro regulation for (a) antenatal care deliveries conducted at health facilities, deliveries conducted by skilled birth attendants, and improved postnatal care, (b) outreach services for family planning services and advocacy and behaviour change communication material, (c) girl child and women’s health preconception and under 5 child health to reduce incidence of small size at birth and also child stunting in the country.

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