Chapter 9
Health Equity Research: A Political Project

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Abstract In the first section of this concluding chapter we present highlights from the syntheses of research on health inequities in India and a critique of the limitations of this evidence. Health equity research in India is clearly at an early and formative stage. There is a large body of literature around the patterns of health inequities along several axes, but for this literature to mature into actionable knowledge, and result in the implementation of meaningful policies, programmes and interventions, there is still a long way to go. Section 9.2 seeks to make meaning of the evidence through an attempt to weave the various strands of explanations presented in the literature together into a coherent approach for researching health inequities. It identifies the *Coleman's boat* that helps organise various social mechanisms; the institutional focus and the intersectional lens as critical components to any approach that attempts to engage with the complex phenomena of health inequities in a meaningful fashion. The concept of embodiment, which

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makes the link between institutions and individual bodies, is an integral part of such an approach. Section 9.3 draws on this to suggest our thoughts on what needs to be done differently in health equity research, to make a tangible impact, especially on those affected the most.

Keywords Health inequities · Research gaps · Coleman's boat
Embodiment · Intersectionality · Institutions · Mechanisms

9.1 Introduction

This book was motivated by a desire to engage with and draw attention to critical gaps in public health research on health inequities in India; and to highlight the urgent need for sustained engagement by the public health research community in generating knowledge that can inform policy change and social action. We have done this through synthesising recent public health literature on this subject. We have also examined the extent to which the current evidence base provides an understanding of the underlying mechanisms and pathways, so that entry points may be identified for mitigating or addressing health inequities.

The first section of this concluding chapter presents highlights from the syntheses of research on health inequities in India and a critique of the limitations of this evidence. Section 9.2 seeks to make meaning of the evidence through an attempt to weave the various strands together into a coherent approach for researching health inequities. Section 9.3 draws on this to suggest our thoughts on what needs to be done differently in health equity research, in order to make a tangible impact, especially on those affected the most.

9.1.1 What Does the Evidence Tell Us About Inequities in Health in India and Its Drivers?

The evidence confirms that there are significant inequities in health in India by socio-economic position, among the Dalit and Adivasi communities compared to other social groups, by gender and among other socially constructed vulnerable groups such as Persons Living with HIV and AIDS and internal migrants. Inequities were found across a wide range of health indicators such as child and adult survival, morbidity, nutritional status and preventive and curative healthcare services. In addition to inequitable coverage and access, there were also inequities in the quality of services provided and in the coverage of populations by social protection schemes for health. Health inequities have persisted during the period of rapid economic growth since the 1990s, and in some instances and for some health indicators, the gap has in fact widened.

Many hypotheses have been put forth by authors to explain the existence of health inequities. Son preference, restrictions on women's autonomy and intimate partner violence emerge as key explanations for health inequities by sex and gender. It may be noted that such an approach identifies the reason for the health gap as located within the household. We did not find any studies on the role of gender discrimination in healthcare settings, gender-role stereotyping or of gender-blindness in health programmes and policies in creating and maintaining health inequities.

Inequities by Dalit or Adivasi status are often attributed to the concentration of poverty and poor educational status among these groups. While this is true to some extent, it is inadequate as the sole explanation. Being a Dalit or an Adivasi is found to be an independent determinant of health inequities even after controlling for other socio-demographic and economic variables. The evidence suggests two possible reasons. One is capability poverty among Dalit and Adivasi households arising from their historical disadvantages, which constrains their ability to translate an adequate income into significantly improved health. The second is overt discrimination in service delivery settings and by health and social service providers, which results either in reluctance to access services, or in poorer quality of services accessed.

Stigma and discrimination not only in service delivery settings but in the society at large is the main route to compromised well-being and poorer access to services among Persons Living with HIV and AIDS, while for internal migrants it is one of many factors contributing to their vulnerability, alongside displacement, insecure livelihoods and cultural and language barriers.

The role of multiple and simultaneous disadvantages in health inequities is a recurrent finding across many studies. Thus, not all girls or women, and not all Dalit and Adivasi persons experience the same kind of disadvantages: Dalit and Adivasi women have much poorer survival chances than other women, and poorer Dalit children have a many-fold higher prevalence of morbidity than their well-off counterparts. This is all the more true in the case of PLHA and internal migrants, among whom vulnerability based on HIV or migrant status is overlaid on other socially constructed vulnerabilities such class, Dalit or Adivasi status and gender.

The public health system has failed to fulfil its expected role of protecting the poor and marginalised from inequities induced by the market mechanism. In fact, it seems that the public health system is a major contributor to reproducing rather than mitigating health inequities in India. Decades of under-investment in the public sector has rendered it weak and dysfunctional, while the increasingly explicit policy support combined with lack of regulation has led to the emergence of a powerful private sector with considerable policy clout. There was maldistribution of public healthcare services in the country disadvantaging poorer regions and localities. In addition, there were major structural inadequacies such as poor infrastructure, equipments and inadequate human resources. The design of health programmes seemed to be determined by administrative convenience and not by the needs of the user. This is best illustrated by the location of ART services in district hospitals and not at the Primary Health Centre, requiring ailing patients to undertake long

journeys to receive free treatment. Descriptions of extreme callousness and abuse of women PLHA in heath facilities in study after study calls to question the core values of the public health system and its accountability to the community it is meant to serve. When the public health system, aimed at providing affordable healthcare malfunctions, it would hurt the most disadvantaged in society more than others. Rather than expand availability, access to and affordability of health care through sustained public investment in health, the country has witnessed stagnant or declining public investment in health.

Although not stated explicitly, the influence of neo-liberal economic policies on health inequities may be deduced from this body of evidence. Widening economic inequalities in India have had an influence on health inequities. Inequities in health across various axes have persisted since the 1990s, the era of economic liberalisation. For some health indicators and in some states of India, the health gaps between urban and rural areas and between the non-poor and the poor, and Dalits/Adivasis versus others have widened. In other words, economic progress and the health benefits that have accrued from it have disproportionately benefited those who were already privileged. Caste and gender-based discrimination have not abated with increasing prosperity, and continue to determine a person's chances of survival and well-being. Jobless growth in the Indian economy in the past decades has had a wide impact, including on internal migration and trafficking, increasing vulnerability to poverty and poor health.

Equity-oriented state policies can make a significant difference to bridging the gap in health status. It has been observed that individuals of the same socio-economic position were less likely to be undernourished or over-nourished if they lived in a more egalitarian area as compared to a less egalitarian one (Subramanian, Kawachi, & Smith, 2007), through state policies that supported food security. Barring a few exceptions, there is lack of political support for public funding and provisioning of health care, education and social protection, and for legislations supporting affirmative action in favour of vulnerable populations (e.g. PLHAs and internal migrants). Even where a policy commitment to equity was made, it tended to evaporate as it proceeded from the drawing board to the ground (Gopalan, Mohanty, & Das, 2011). Elite capture of policy space could be an important explanation for the persistence of health inequities at a time of economic growth and prosperity.

There is much that we do not know anything about. The lack of research on entire population groups and health issues is itself a significant contributor to the perpetuation of health inequities. To give just a few examples, health equity research on Dalit and Adivasi populations is especially sparse; other under-represented groups include children 6–10 years of age, men of all ages and the elderly. Public health research on communicable and non-communicable diseases and mental health and injury in India has not engaged adequately with issues of equity. Other socially constructed vulnerabilities such as disabilities, stigmatising diseases, non-conforming gender identities and sexual orientation are all neglected areas of research. Appendix to this chapter presents a more detailed picture on the content gaps in health equity research in India.

The next section presents a critical overview of the nature of research on health inequities in India.

9.1.2 Limitations of the Current Evidence on Health Inequities in India

Health equity research in India is clearly at an early and formative stage. There is a large body of literature around the patterns of health inequities along several axes, but for this literature to mature into actionable knowledge, and result in the implementation of meaningful policies, programmes and interventions, there is still a long way to go. A critical appraisal of the literature in terms of its potential translation into actionable knowledge leading to long-term change, reveals several gaps. These need to be addressed in setting the future research agenda for health inequity research in India.

9.1.2.1 Predominant Reliance on Large-Scale Data Sets Collected for Purposes Other Than the Study of Disparity

Most of the quantitative studies are based on secondary data from NFHS and NSSO. These data are not collected with a view to examining disparities in health, and therefore limit what can be researched and what cannot, related to health inequities. This limitation is seen, for example, in the health conditions and caste and economic categories that data permit us to study. Second, that which does not lend itself to measurement, e.g. alienation, power dynamics are seldom studied.

9.1.2.2 Association Fatigue

A corollary to the reliance on national data sets is that there is more research exploring the existence of gaps or statistical associations across socio-demographic or economic categories of population. This is an important first step in exploring possible underlying factors, but has its limitations since it does not seek to ask the "why" and "how" questions. Pathways and mechanisms through which health inequities are created and sustained (discrimination, prejudice, stigma, humiliation, social exclusion) are rare to find.

9.1.2.3 Deficit Finding and Blaming the Victim

In several instances, courageous policy recommendations are made based on statistical associations. Often, the language used belies an implicit (or even explicit)

blaming the victim such as when mothers or the poor are spoken of as having to *catch up* with the rest, as if they are falling behind merely because of their own reasons.

9.1.2.4 Lack of Theorising and/or Post-facto Theorising

There is scant application of current theoretical knowledge, both from within the public health and epidemiological literature and research in other disciplines on health inequities to frame research questions or conduct analysis. Although human societies have distinct differences in the way they manifest particular phenomena, wider commonalities across societies allows for application of theories on health inequities in our context, either to test or refine them. For instance, Nancy Kreiger's critique of the use of race as a label rather than as a social construction could be used to critique the way caste, tribal- or poverty-related identities manifest in our settings (Krieger, 2000). What is sometimes seen is a *post-facto* theorising without an actual effort to apply these theories at the time of data collection or analysis. In other instances, literature shows no effort at all in adding to or borrowing from existing theory.

9.1.2.5 Inadequate Engagement with Intersections of Multiple Axes of Disadvantages

Barring about three or four studies, intersections of multiple axes of disadvantages have largely been ignored. Not taking cognisance of intersections results in a false assumption of heterogeneity within a population category. This may render invisible those with extreme disadvantages.

9.1.2.6 The Dynamic and Context Specific Nature of Health Inequities is Not Visible in the Research

The nature and patterns of health inequities and the population groups most affected is not static over time and space. But there are few studies that have sought to understand how, for example, poverty affects health across different contexts and how the nature of this relationship has changed over time.

9.1.2.7 Thin on Action/Evaluation

Literature is very scarce on possible interventions or actions to mitigate or address inequities. This is possibly a reflection of there being very little active effort at developing, funding or promoting such interventions. At the same time, critical evaluations of large-scale policies or programmes either related to health equity, or examining reforms with a health equity lens are lacking.

9.1.2.8 The Current Evidence Base Offers Limited Scope for Meaningful Action to Change Health Inequities

For the many reasons discussed above, the current evidence base on health inequities in India does not provide the kind of nuanced information that is needed for policy action to bridge health inequities. While there is nothing wrong with identifying only correlates of an outcome, the problem arises when such research becomes the basis on which policy decisions are made. Given the lack of understanding of mechanisms, strategies are driven by preconceived and invariably expert-driven notions about the reasons for the associations. The resulting intervention may be a poor fit and not succeed in achieving its objectives.

According to the Fundamental cause theory, targeting these superficial or specific associations while leaving undisturbed the underlying causes will only reduce (if at all) the specific association (Link & Phelan, 1996). Other mechanisms and pathways will form to express the continued inequity-generating forces. To give one example, there may be an increase in the institutional delivery rates because of providing cash incentives, but the maternal mortality ratio may not decline significantly. Women may not die of direct obstetric causes which may now be adequately dealt with in the health facilities, but because the underlying poverty, social exclusion and gender inequalities have not been addressed, deaths from severe anaemia, malaria and other indirect causes may become more prominent.

In the next section we draw on the various conceptual approaches discussed in chapter two to understand the mechanisms underlying health inequities in India.

9.2 Multiple Interacting Mechanisms of Health Inequity

Reading across the literature that we have synthesised in the previous five chapters, we have attempted in this section to draw on broader literature and theoretical frameworks to better understand the mechanisms that create, sustain and promote inequities in health. These frameworks may not have been explicitly part of the authors' intentions, but do add explanatory value to the findings they have presented. In this section we thus start with a theoretical understanding that could help discover mechanisms across the pathways and patterns, contributing to building a theory: "a framework of interconnected concepts that gives meaning and explanation" to patterns and empirical observations (Lipsey & Pollard, 1989).

To explain or understand the drivers or reasons for health inequity, it is important to begin with a theoretical understanding of why or how inequity exists in the first place. For this we require engaging empiric reality with previous theoretical contributions. Such undertakings lead to the development of new theory that takes into account the recorded reality, which in turn sets off further iterations of theorisation. Research aiming for change perforce is critical of *dominant* paradigms that invariably tend to sustain the status quo. Indeed, research that is not explicitly

theory-driven tends to by default fall back on such status quo-sustaining belief structures.

Hedstrom and Swedberg (1998), based on Jon Elster's work, state that "the search for mechanisms means that we are not satisfied with merely establishing systematic covariation between variables or events; a satisfactory explanation requires that we are also able to specify the *social cogs and wheels* that have brought the relationship into existence" (Elster, 1989, p. 3 as quoted in Hedstrom & Swedberg, 1998, p. 7).

While explaining the mechanisms driving social exclusion in social health protection schemes in India and in a few African countries, Vermeiren and Soors (2014) posit that "to explain tangible social events we must rely on a number of elementary mechanisms, as one is not enough. Often the mechanisms counteract one another, sometimes they work together" (p. 3 of 12). Such insights into the mechanisms of social exclusion are also found in a range of other approaches to inequity like the eco-social theory with its emphasis on uncovering the way in which injustice is literally embodied in biology, or in the work using the intersectionality lens for example that forces us to engage with the reality that multiple axes of oppression are invariably converging on individuals and each such axis may have varying effects in different times and places.

There is often an assumption that mechanisms and their interactions too are at the level of these variables. Such an assumption may be due to the large number of research approaches that aggregate variables obtained through surveys, and then examine the interaction between these variables. Social action however, is brought about through human action; variables capture an empirical level of observations of these actors. Mechanisms on the other hand rest within the interplay between social structures, institutions and configurations of these in association with the agency exercised by actors within these structures. Thus unveiling mechanisms entails a completely different order of research and analysis.

While the earlier chapters have summarised the knowledge on drivers of health inequity in India, it is important to acknowledge the complexity of *isolating* mechanisms within a given context. The complex nature of inquiry into social systems requires that we understand that (one or more) mechanisms do not work in isolation, but in active interaction within a given context. Consequently, the mechanism(s) of social change is(are) likely to be a combination of mechanisms of various kinds working in tandem, either reinforcing, countering or even insulated from each other's effects. For example, macroeconomic reforms of the 1990s could have driven changes in the configuration of private hospital networks, pharmaceutical innovation and private practitioner behaviour in a certain way. And these macroeconomic configurations are in constant interaction with local social norms and over time could influence solidarity within or across social groups in each setting, further triggering inter-individual competition in a previously cohesive community. In Bunge's words, all uni-factorial (in particular uni-causal) explanations of social change are at best partial. Various mechanisms are constantly interacting, across various societal levels (ranging from individuals to households,

neighbourhoods, communities, geographies and administrative hierarchies) to result in the patterns that researchers seek to describe and explain.

In this book, as is the case with literature on health inequity as well, we have considered health inequities along major axes such as caste, socio-economic position, gender and other vulnerabilities. Such distinctions are useful in describing or understanding the phenomenon. For individuals, families, neighbourhoods and larger geographies and times that experience inequity, these distinctions between axes of inequity are a mirage, hiding away or stereotyping an experience that is a unique admixture of what researchers see as multiple and distinct drivers of these inequities. Moreover, given that many of the research methods that researchers use are more suited for describing or understanding population level phenomena, research on health inequities tends to be shorn of the dynamic range of interactions at various levels (across individuals, organisations and within and across micro–macro institutions). Hence, it is useful to organise mechanisms operating across macro (institutional) levels and micro (individual) levels allowing for a comprehensive assessment of the interplay across these levels.

A synthesis of the literature as done in the five preceding chapters and the emerging mechanisms collected at the end of each chapter suggests that any attempt to arrange these mechanisms into a coherent framework that can be used to engage with the issue of health inequity requires to be multilevel, interactive and dynamic. Such a framework needs to engage with the fact that, "…social change is likely to be biological, psychological, demographic, economic, political, and cultural-either simultaneously or in succession" (Bunge, 1997).

We would like to reiterate that such frameworks need to be clearly recognised as epistemological or pedagogical tools rather than ontological statements. The idea is not to describe the truth, but to evolve ways of arranging empiric facts in order to unveil the complex mechanisms underlying their relationships over time and space, and through this process attempting at building usable and actionable knowledge, that in its turn is subject to empiric findings and further iterations of praxis.

In our analysis the essential features of such an emergent framework needs to adequately conceptualise multilevel and multidirectional pathways, needs to engage with intermediary structures that modulate and translate a number of forces in different dimensions into their ultimate biological expression with which we are ultimately interested, as well as engage at the individual level with the complexity of identity in a situation of multiple interacting or interlocking axes of oppression.

One of the typologies that helps organise various social mechanisms is Hedstrom and Swedberg's (1998) typology that begins with macro–micro–macro model, commonly adapted from *Coleman's boat* (or bathtub in European literature), referring to its origins in the work of the American educational sociologist and theorist, James Samuel Coleman (Fig. 9.1).

Social mechanisms operating at macro-level could influence behaviour of individual actors thus shaping certain forms of mechanismic interaction driving macro–micro changes. This is characterised as type 1 (situational) mechanism. The various household or individual level effects in a given context due to larger institutional drivers is one way of viewing situational mechanisms. The effects of neo-liberal

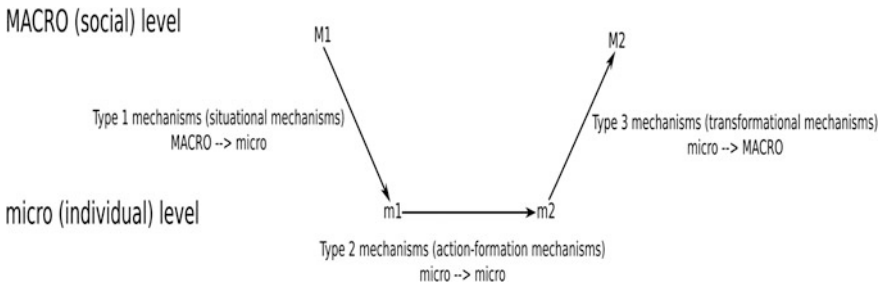

Fig. 9.1 Coleman's boat. Redrawn from Vermeiren and Soors (2014) based on their adaptation from Coleman (1986) and Hedstrom and Swedberg (1998)

macroeconomic policies on within-household or across household interactions and behaviours are other examples. Typically, situational mechanisms require an active application of theory in framing research questions and studying them. They also require larger time-frames to be able to study changes across decades. Very few studies explicitly sought to investigate situational mechanisms or macro–micro interactions by defining this as the problem a priori. A few studies however did acknowledge and frame arguments implicating neo-liberal economic policies at the macro-level as possible explanations for patterns seen in NSSO data (Selvaraj & Karan, 2009). However, disentangling variable and intersectional micro-effects within or across households of such macroeconomic policies were not found among the studies we reviewed. In the gender axis, son preference and intimate partner violence were both seen as an internalisation of oppression and hence wider societal/institutional mechanisms reinforcing discrimination based on caste or gender could be seen as a macro–micro driver of such inequity. Among the other socially constructed vulnerabilities (PLHA and internal migration) the macro–micro and micro–micro processes are clearly visible although not explicitly studied or explained. For example, the role of economic policies that facilitate *markets* around sale and trafficking of women (the sex industry); their role in destabilising livelihood security; the pressures of urbanisation and geographic inter-state and inter-district inequity and its role in fuelling internal migration; all clearly illustrate the hidden part of the iceberg which is often missed out while investigating these vulnerabilities.

While social structures reinforced over generations and centuries may not be easily countered by simple interventions, acknowledging and mitigating the ill-effects of health inequity is a foundational element of a health system. Evidence however shows that the health system either reproduces or reinforces health inequities. Again, the health system's mitigatory (or reinforcing role) in health inequity could be seen as a macro (institutional) interaction having effects at the individual level.

The second type of mechanisms is the action-formation mechanisms, which operate across individuals (micro–micro). These are mechanisms that typically operate within communities or households and draw upon individual agency.

Intra-household interactions typically fall in this domain and are driven by individual desires, beliefs and opportunities. Intra-household healthcare decision-making, resource allocation and prioritisation of problems within health or between health and competing interests such as child's education or elderly care for example are driven by such mechanisms. Individual psycho-social practices shaped by cultural norms are also typically situated in this mechanism. The individualisation and breakdown of solidarity within or across households due to entrepreneurial pressures, is another example. A positive example could be state-led efforts encouraging communitisation or participatory platforms. Action-formation mechanisms have been postulated and studied in the literature we reviewed. Some of the studies investigated the role of social cohesion in promoting equity or protecting neighbourhoods or groups from inequity (Houweling et al., 2013; Story & Carpiano, 2015; Subramanian et al., 2007).

These inter-individual or micro–micro interactions are possibly better developed in gender and caste. Discrimination by gender and caste, albeit reinforced by social structures that span generations and timescales, ultimately manifest in interactions between individuals at the micro-level. Among the literature on health inequity by caste, three prominent mechanisms stand out as being the underlying driver of caste inequity, but clearly also interacting with other axes: Identity/discrimination/internalisation of oppression and differential opportunities and unequal access to resources and power based on a particular caste. In studies on gender, the role of women's autonomy in shaping access to women's access to household power, decision-making and resources has been explored but the wider institutional mechanisms reinforcing these have not been explored. Although maternal autonomy manifests at an individual or household level, the role of wider social structures in shaping and facilitating such individual- or household-level autonomy across generations cannot be ignored.

In the case of research on health systems, there is a huge gap in any research on human resources and precious little on human behaviours: the culture and ethos of service delivery that govern relationships between patients and different levels of providers; also little understanding of everyday functioning of and encounters within health systems. Many processes related to health service provider interaction with each other or with patients are likely to be pathways at the micro-level (micro–micro). Apart from some research on unequal maternal health advice given and a few papers on discrimination at the point of service delivery, very little research exists on inter-individual or micro-drivers of health inequities within the Indian health system.

And finally, in type 3 (transformational) mechanism, we see how individual action within and between people could be transformed into an intended or unintended collective outcome (micro–macro). These are typically scenarios when emancipatory action occurs through inter-individual interaction resulting in a transformative action at a higher level, typically at organisational or societal levels. Questioning and/or striving to change well-established social structures, norms and practices through people coming together is an example. Well-designed interventions that lead to impact could be situated here. Participatory action research for

example is an example of a methodology that could trigger or align with such transformative mechanisms. Typically, among the studies we reviewed, there have been a few papers exploring social cohesion and its effects either through measuring cohesiveness, or through exploring theoretical frameworks on cohesion as possible explanation for patterns of inequities seen. Other papers have explored possible transformative mechanisms through studying civil society or community based organisation's engagement in participatory platforms or through action rising upwards from the grassroots level, either in the form of locally managed community health insurance programmes or self-help groups coming together (Houweling et al., 2013; Story & Carpiano, 2015; Subramanian et al., 2007).

In addition to these three processes (M → m, m → m and m → M), interactions across macro-processes (M → M) may also be envisioned. Indeed, this is often the case where various macro-institutional or policy processes often interact. The linkages between macroeconomic processes with those related to health professional education and market forces within health for example are crucial in explaining various downstream effects at individual and household levels, as well as in explaining deficiencies in public health systems.

The model's ability to serve as an abstract and a *meta* framework within which to map and understand any of the several mechanisms operating within individuals or the collective and its ability to embrace both structure and agency with equal importance makes it ideal to explain and understand mechanisms underlying a range of interacting axes of inequity. It is important to reiterate that "macro" and "micro" do not necessarily indicate particular levels in a hierarchy, but merely serve as place holders in order to delineate multiple interacting levels. Thus it is possible to use Coleman's boat at different levels from the global to the household, with each level in turn being linked to a higher or lower level as the case may be.

For the authors of this chapter, the Coleman's boat offers two more important reasons to be an important component of any explanatory attempt. One is its conceptualisation of *feedback* in terms of the micro–macro pathways, and the other is the presence of micro–micro pathways.[1] The fact that these are in addition to macro–micro pathways, and that all three are given equal prominence and validity is crucial to what we would like to call its liberatory potential. That the micro can impact on the macro shows that actions at the lower level in a hierarchical situation can affect the higher level, meaning that individual action can impact on the institutional level and indeed institutional action can impact on the larger systems level. Thus there is a clear pathway for research and institutional and programme design to have transformative potential even as they are influenced by the level above them. Equally importantly the positing of micro–micro interactions does two things. The first is that it allows for many micros, thus allowing for the heterogeneity of effect of the influence of the macro on the micro. Second, it allows for

[1]Of course both types of interactions are well described in systems thinking and other multilevel theories of system change like the transitions theory.

such influence to potentially feedback to the macro-level too. This is in contrast to the overbearing nature of the macro–micro pathway in most research.

We turn now to the institutional level. A number of conceptual frameworks highlight the importance of this level. Probably one of the most prominent is that of Ostrom (2009). In this framework, institutions are seen as mechanisms for problem solving or redistribution of resources. What is important from our point of view is that the "rules" by which an institution functions are evolved from the society in which these institutions are embedded, or indeed from whence these institutions evolved.

A number of thinkers talk about the way in which institutions mediate between the larger macro-level systems of oppression to the actual pathways that translate these socially structured relationships into health outcomes. In our opinion one of the most comprehensive theories in this regard is the eco-social theory by Nancy Krieger and its concept of embodiment (Krieger, 2005). Another sociologist/philosopher whose approach has been used in the study of inequity and intersectionality is Pierre Bourdieu, especially in his use of the concept of "habitus" and "field" (Anna, Callahan, & Kang, 2013; McNay, 1999).

While both Krieger and Bourdieu (among many others) talk about embodiment, Krieger's approach arises from the dialectical and epidemiological traditions (Krieger, 2000). According to her the core concept of embodiment is that we literally embody biologically, our lived experience in the societal and ecological context, thereby creating population patterns of health and disease. The idea of embodiment posits that the determinants of current and changing societal patterns of disease distribution are exogenous to people's bodies and cannot be reduced to allegedly *innate* characteristics, even as individual biological characteristics and variability do matter. This also includes the following three tenets:

- Bodies tell stories about—and cannot be studied divorced from—he conditions of our existence;
- Bodies tell stories and often—but not always—match people's stated accounts; and
- Bodies tell stories that people cannot or will not tell, either because they are unable, forbidden, or choose not to tell.

Reading these various theories together, and looking at the patterns and trends that are emergent in the literature describing health inequity, it is easy to see the way in which advantage and disadvantage are further consolidated through institutional functioning, manifested in the design and the implicit and explicit set of rules governing such institutions. Thus the way in which gender plays out in the health system through the mechanisms of *lack of acknowledgement* as explicated by Sen, Iyer and George (2007), is a great example of the way in which mechanisms may be dissected out.

The institutional focus then allows us to interrogate health systems as crucial intermediaries between the larger macro forces and individual effects. In such a situation health systems, "can choose to either maintain status quo, mitigate the impact of power imbalances on individual and collective health, or contribute to the

empowerment of communities. … Where along the continuum the system is, probably depends on the balance of forces between internal and external determinants, and to some extent, on path dependence (Gaitonde, 2015, p. 115)."

At the individual level, the concept of intersectionality provides a crucial lens through which to understand social inequalities and health inequities. It draws attention to the fact that axes of oppression or vulnerability act simultaneously on individuals. The intersectionality lens draws attention to vulnerable subgroups within a broad category, which may be hidden by averages, and helps reveal the true extent of health gaps that may be missed when single identities are considered. Viewed through this lens, individuals do not draw on social resources in silos and in isolation from others that constitute them. Thus class, caste, gender and other attributes intersect, and individuals draw on privileges in terms of some attributes and disadvantages in terms of others (e.g. Adivasi, college-educated, man) to occupy a position of advantage or disadvantage, in a given context at a particular point in time. In fact, the intersectionality lens is about not viewing caste or gender as labels but as outcomes of systems of privilege and oppression, such as patriarchy, racism, heterosexism. *Power* is central to an intersectional view of inequalities, and the key question with which to query an observed gap is "*what are the power dynamics and systems of privilege and oppression causing the gaps"?* Intersectionality thus offers a more nuanced lens through which to understand the forces underlying pervasive inequities in health.

To us these three—Coleman's boat, the institutional focus and the intersectional lens are critical components to any approach that attempts to engage with the complex phenomena of health inequities in a meaningful fashion. The concept of embodiment, which makes the link between institutions and individual bodies, is an integral part of such an approach.

9.3 Moving Towards a Coherent Body of Knowledge on Health Equity

The critical gaps we find in health inequity literature highlights the need to bring together very fragmented bits of evidence that are separately too weak, but hold a potential to build up together into a coherent and actionable body of knowledge on health inequities. In this section, we first outline how health equity researchers may be guided by a self-critical and conscious choice of analytical approaches, research questions and methodologies. This is followed by a reflection on the changes needed in research funding and architecture to foster research that can produce coherent and actionable evidence on inequities in health.

9.3.1 Theory-Driven Research

More theory-driven research that begins with stating current theoretical understanding of health inequity, and builds upon it drawing from empirical data from the field on one hand, and borrowing from wider body of knowledge (theory) on the other, while critically examining and refining these theories, is the need of the hour in health inequity research. As outlined in the previous section, we think that an approach that draws on a range of theories and frameworks: the Coleman's boat; the institutional focus and the concept of embodiment; and the intersectional lens is well-aligned with the purpose of identifying mechanisms and pathways underlying health inequities. The reasons why have been discussed in detail in the previous section.

9.3.2 Asking the Right Questions

There is clearly a need to relook at the research questions comprising the health inequity research agenda. Rather than remain limited to asking questions such as "why is group x worse than group y", it may be useful to shift our focus to "what are the structures, processes and mechanisms that make group x worse than group y?". Questions about power relationships, resource allocations, everyday managerial decisions that leave people out because they do not *fit* the average picture are needed. At the same time, questions around transformational mechanisms (see earlier sections) as well as research on what kind of policies, structures, governance promotes health equity are much needed.

Many a times the right questions emerge from one's own observations of everyday life. To pursue such questions may require the courage to venture beyond the beaten path and to risk being challenged on the validity of the research.

9.3.3 Methodological Innovations Drawing on Multiple Disciplines

Public health researchers studying health inequities may have to venture beyond the comfort zone of survey research, in-depth interviews and focus group discussions to seek-out methods that allow for voices from the ground to be heard, and learning from people's lived experiences. The research questions that we pose may require us to cobble together unconventional approaches to the collection and interpretation of data, such as photo-voices, Forum Theatre and other participatory and bottom-up approaches to knowledge construction. These would also be ways of minimising power differentials between the researcher and the researched.

Researcher reflexivity is another key requirement especially in the study of issues related to equity and social justice. This is important for understanding how the researchers' social location may have influenced the nature of information collected as well as its interpretation. Sharing the preliminary results of the study with the participants in the study to allow for their inputs into its interpretation would not only establish a more equal relationship between the researcher and the researched. It would also be a way of validating the interpretation and improving the quality of data analysis,

9.3.4 Fundamental Changes in Research Funding and Governance

Moving towards building a coherent and actionable body of knowledge will not happen without a conscious steering and alignments among various actors, at various levels. The lack of such coherence calls for a questioning of the current model of research funding and agenda-setting within and across the global, national and local research community. Innovative and hierarchy questioning approaches like participatory action research and lay epidemiology for example also point the way to altering the dominant research governance structures.

Research on health inequities suffers from a serious lack of funding. Globally, international funding for health research is skewed heavily towards biomedical research. In a paper published in the WHO Bulletin, Pratt and Loff (2012) assert that the current research models are unlikely to be interested in funding research promoting global health equity, because bilateral donors are interested in disease-focused product development research, which would bring economic benefits to the donor country. While this is the case for all health research that is not of a biomedical nature, health equity research faces some specific challenges. As suggested by Navarro (2008), sponsors of research both governmental and private, are institutions that are a part of the status quo, and may have serious conflicts of interests with supporting research on health inequities.

Funding for public health research in India is particularly abysmal. The annual per capita health research funding in India during 2007–08 to 2011–12 including international and national sources was estimated to be less than US$ 1 of which 3% was spent on public health research (Dandona, 2015).

The limited funding that does come in, usually takes the form of research collaborations with universities in the Global North, or bidding on calls for research from donor agencies. There is little scope in such modes of funding for consultative agenda-setting with partner organisations, and none at all for involving research participants or potential beneficiaries in defining their priorities.

An increasing tendency towards trivialising research to a management model is seen in recent years, with every step along the research cycle being tightly controlled in the name of accountability. However, the severe resource crunch in public

health research funding does not leave researchers with many options. Zafrullah Chowdhury's critique of research as a method of colonisation (1981) is even more relevant now. In his essay, Chowdhury had described how Northern-expert led, funded and controlled research in health and family planning in Bangladesh did little by way of finding tangible solutions to local problems. The villages of Bangladesh essentially served as training ground for early career researchers from high-income countries who may eventually return some years later as expert advisors to the local governments and institutions (Chowdhury, 1981). The limited money allocated for international health research, thus may not be available for in-country researchers, especially those not located in premier institutions in metropolitan cities.

Our vision for health equity research, on the other hand, calls for flexible funding, decentralised and participatory agenda-setting, being aware of the power inequalities that underlie health inequities and having the courage to challenge accepted wisdom that upholds the status quo. Thus, the nature of current research funding and governance is incompatible with the kind of research needed for action to bridge the health equity gap.

There are major changes required at every level, from the allocation of resources for research on inequities in health; the people involved in the agenda-setting and in the formulation of the research question; to what theories and assumptions are drawn upon to design the study; the transparency of the analysis; the extent and nature of participation of the affected communities at all stages of the research; in how research results are fed back not only to the policy level, but also to the affected communities; and so on.

We see research as one vital component of the battle against health inequity, as it has the capacity to uncover key mechanisms and effects of the various determinant of health inequity. More importantly given the present context, scientific research has the legitimacy required to be heard in elite spaces where decisions regarding policies and the distribution of resources are taken. Thus there is a critical responsibility of research to play this supportive and facilitatory role in the larger struggle against social injustice and inequity. It is because of this that we reiterate in conclusion, that unless such work is seen as being political at heart, it will remain superficial and impotent before the true task before it, that of enabling a more just and equitable world.

We believe, that the coming together of committed public health researchers who find unacceptable and unjust the avoidable suffering and loss of lives that health inequities represent, can create a bottom-up pressure towards shifting the health research architecture, governance and funding. This book is a call to all like-minded researchers to join this political project.

Appendix

Content gaps in health equity research in India identified through mapping and syntheses exercises

Categories	Content gaps
Population groups	• Dalit and Adivasi populations • Children above 5 years of age; adolescents; elderly; persons living with disabilities (physical and mental); persons living with specific stigmatised health conditions; migrant workers; sex workers; people of non-conforming gender identity and sexual orientation
Health conditions	• Non-communicable and communicable diseases • Mental health • Injuries • Reproductive health issues beyond maternal health • Well-being
Geographic locations	• Urban poor areas • North-Eastern States, Goa

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