

Topp SM, Schaaf M, Sriram V. et al Power analysis in health policy and systems research: a guide to research conceptualisation. *BMJ Global Health* 2021; 2021;0:e007268. doi:10.1136/ bmjgh-2021-007268

SUPPLEMENTARY FILE 3: Extended Summary of Methodologies for Studying Power in Health Policy and Systems Research

<i>Methodology and methods</i>	<i>Applicability to studying power in HPSR</i>	<i>Strengths</i>	<i>Methodological Considerations</i>
<p>Ethnography The study of how humans in groups interact, behave, experience and perceive; and how meaning and value are established.</p>	<p>Ethnography seeks to build rich and holistic understanding of people's perspectives, practices, and cultural context (Hammersley and Atkinson 1995) and focuses on depth over breadth, immersive observation in natural settings (e.g., non-experimental conditions), exploratory (rather than hypothesis testing) research, and efforts to identify and analyse the meaning and function of human action in context (Creswell and Poth, 2017, Agar 1997). Ethnography can thus examine how power is manifested through, for example, the unequal distribution of resources, the privilege or denigration of individuals or sub-groups, and the development and normalization of forms of knowledge (Jain and Jadhav 2009).</p>	<p>Ethnography can expose power's function in key HPSR spheres, such as policymaking processes (Irwin and Smith 2019; Nambiar 2013), healthcare decision-making in the home (Nyamongo 2002), relationships among actors in healthcare settings (Kapilashrami and McPake 2013), and informal practices that shape the delivery and receipt of health care and other social services (Pigg 2013). Ethnography has been shown to enable research on political issues of legitimacy, moral universes, tacit knowledge, and local discourses (Hagene 2018).</p> <p>While ethnography has its origins in the colonial project and has been frequently used to "study down" (Nyoka 2019), more recently, ethnography has been employed to "up, down and sideways" (González and Stryker, 2014), wherein researchers focus on the practices and moral worlds of the powerful, providing insight into how power is constructed, solidified, and wielded (Mishra and Nambiar 2018).</p>	<p>Who gets 'to do' ethnographic research should also be recognised as a matter of power and position. In their analysis, researchers must also be attentive to whether people can choose to participate in ethnographic research, dispute the conclusions made, or influence how ethnographic research findings are shared and used.</p>
<p>Case study A form of empirical inquiry characterised by an "intense focus on a single phenomenon"</p>	<p>Case studies are particularly useful in situations where boundaries between the phenomenon of interest and the context are blurred. In relation to power in</p>	<p>By combining an interpretivist (seeking to understand individual and shared social meanings) and critical (questioning one's own and others' assumptions) analytical approach researchers may use this methodology to consciously account for</p>	<p>Case studies are ubiquitous in public health, but are often a summary of a program, rather than the intended in-depth exploration of social</p>

Topp SM, Schaaf M, Sriram V. et al Power analysis in health policy and systems research: a guide to research conceptualisation. *BMJ Global Health* 2021; 2021;0:e007268. doi:10.1136/ bmjgh-2021-007268

<p><i>within its real life context” (Yin 2014)</i></p>	<p>HPSR, case study research has most commonly been used to produce explanatory accounts focussing on different actors’ expressions of power (both formal and informal, overt and covert) to answer ‘how?’ and ‘why?’ certain health policy or system features exist, and to assess efforts to change power dynamics (L Gilson, Orgill, and Shroff 2018; Shiffman and Smith 2007). Since case studies typically draw on and triangulate between multiple sources of data, this approach may be equally useful for exploring sources of power (how power emerges) and dimensions of power (how power is channelled) within a health system or health policy sphere, including across time (Sriram et al. 2018).</p>	<p>the ways in which broader social and political environments influence both macro- and micro-power dynamics (Rotarou and Sakellariou, 2017, Doolin 2004). Comparative case studies can be usefully used for theory building or theory testing, especially when cases are selected for the purposes of comparing or contrasting across certain dimensions (Malajovich et al. 2012). Case studies may also be used for assessing causality using more objective formats such as process tracing (Blatter and Haverland 2014).</p>	<p>phenomena. Researchers seeking to employ case studies should be particularly attentive to aligning the purpose of enquiry with case selection, and ensuring rigor in examination of the case as well as in the application of the particular methods chosen (e.g. in-depth interviews or observation). It is also important to appropriately ‘bound’ the case in such a way that one can focus on the phenomenon at hand, but also understand the deeper mechanisms of power at play. Analysts should also ensure that there is sufficiently rigorous interpretive analysis (Yin 2014).</p>
<p>Discourse analysis The study of how language and structures of meaning -- whether written or spoken -- are used in social contexts.</p>	<p>This research method can illuminate the construction and communication of health systems “software”, such as values, beliefs, and assumptions (Sheikh et al. 2011) through word choice, linguistic style, conversational codes (taking turns, interrupting, reacting) and non-verbal components of speech (pauses, tone of voice, gestures).</p>	<p>In closely examining the use of language in texts (such as laws, policy and national strategy documents, news media articles) and oral communication (such as transcribed interviews, debates or speeches) discourse analysis brings attention to the ways in which communicative acts construct shared understandings of what is normal (Steel, 2019, Sacks, 1995) and what is possible, legitimate, or true (Foucault 1972). Discourse analysis includes the study of omitted meanings and tracks contents and references that</p>	<p>Discourse analysis is often conducted together with other methods. While it produces important observations on the trajectories taken by conceptualizations, from inception to oblivion, and the central role they may play in shaping policies initiatives, Discourse analysis needs to be complemented (corroborated or invalidated) with observations of</p>

Topp SM, Schaaf M, Sriram V. et al Power analysis in health policy and systems research: a guide to research conceptualisation. *BMJ Global Health* 2021; 2021;0:e007268. doi:10.1136/ bmjgh-2021-007268

		are kept hidden or are altogether avoided (Sieleunou et al. 2017; Yazdannik, Yousefy, and Mohammadi 2017). Discourse analysis can problematize dominant paradigms in global health, such as the ways that standard epidemiological “exposures” and factors can obscure the role of power asymmetries.	events and actual decisions and their impact. Illuminating and critiquing structures of power demands researchers reflect on their own status, assumptions, cultural perspective, and social identity (Hodges, Kuper, and Reeves 2008).
<p>Political economy analysis</p> <p>An approach that focuses on power (state structures, government and the law) and resources (labour, capital, trade and production) how they are distributed and contested in different country and sector contexts, and the resulting implications for policy and development outcomes (Reich 2019).</p>	<p>Political economy can draw on both quantitative and qualitative methods to: i) explore the nature of the political landscape through mapping the power and position of key actors and ii) how the distribution of power and resources influence processes that sustain and transform patterns of relationships and through this, the feasibility of policy reform over time (Collinson 2003; Reich 2019). Political economy analyses may also be applied to strengthen policy processes by, for example, surfacing potential allies or opponents for policies and developing strategies to engage politically with key stakeholders (Reich 2019).</p>	<p>Political economy analysis is particularly appropriate for exploring the role of material and productive power in the development, implementation of (and interaction between) national and international health policies and systems (Reich, 2019), and for illuminating the intent behind particular policies (i.e., political power, financial motives, etc). Political economy analysis can reveal contradictions between political declarations and actual practices; as in the analysis of informal illegal fees charged to patients, that in some contexts are fundamental for the economy of the system, despite the official declared intentions to stop them (Croke 2012).</p>	<p>When using political economy to analyse power in health systems, researchers should be aware of the risk of an objectivist application of this methodology that could mask the researchers’ own positionality. Researchers should also be aware of the tendency in global health to view issues as apolitical or ahistorical, and should seek to embed examination the historical and structural reasons behind inequity.</p>
<p>Participatory Action Research</p>	<p>PAR seeks fresh insight into injustice by positioning those</p>	<p>By exploring and recognising different sources of power (e.g. social position, cultural knowledge)</p>	<p>Applying PAR to study power demands that researcher /</p>

Topp SM, Schaaf M, Sriram V. et al Power analysis in health policy and systems research: a guide to research conceptualisation. *BMJ Global Health* 2021; 2021;0:e007268. doi:10.1136/ bmjgh-2021-007268

<p>Aims to understand and improve the world by changing it; this is accomplished by overcoming the separation of researcher (subject) and people being studied (object).</p>	<p>affected by problems as both the primary sources of information and the primary actors in generating, validating and using knowledge for action (Loewenson et al. 2014). PAR can be used for studying power as a subject; however, its aim is to actively contribute to transforming power relations in the study of any topic in HPSR, and in other fields.</p>	<p>and applications of power (e.g. via citizen-led collective action (Hernández et al. 2020), PAR not only enables new <i>understandings</i> of power but can itself <i>change</i> power relations. This may be achieved by: (1) shifting control over the construction of knowledge and truth from the historically privileged to the historically marginalized (Aryeetey et al. 2013; Mathias et al. 2019) (2) increasing researcher / participant understandings of injustice (conscientization (Freire 1974) activism, and solidarity (e.g., (Minkler 2000); in pursuit of (3) transforming the relationships and power within systems and institutions.</p>	<p>participants grapple with questions of collectivism, community, and solidarity. This includes critically examining how ‘community’ is defined and bounded in a given setting, the relative risks and benefits borne by those involved, whether sufficient commitment and resources are in place for meaningful action, alignment of interests in terms of research and action outcomes, and whether researchers are genuinely able and willing to shift power (Khanlou and Peter 2005).</p>
<p>Actor Interface Analysis Focuses on individual actors and their power struggles, which are embedded in the often-neglected lived experiences of the policy actors (Long 2001; Schutz 1962).</p>	<p>When used to study health policy, Actor Interface Analysis examines how interactions between experiences among different types of actors and in the context of certain policies, shape the implementation and outcomes of the policy. Where actors interact, power struggles such as collaboration, contestation, conflict or resistance can be located and analysed.</p>	<p>This methodology brings an ‘actor-centric’ lens to the study of power in policy implementation as compared to other (more institutionally-focused) methodologies and helps to examine how policy related decisions and action are shaped by the actors’ struggles or their power practices set against their lived experiences (Long 2001; Lehmann and Gilson 2013). This approach thus provides a robust conceptual as well as methodological entry point for the examination of the expressions of power (power dynamics), their underpinning elements, and their impacts on the policy process.</p>	<p>This methodology requires the researcher to develop a detailed understanding of the policy, and a deep understanding of the lived realities of all actors (not just their understanding and perspective on the policy issues). The very precise focus of analysis (specific actors, in specific relationships, reacting to specific policies) may limit analytic generalisation.</p>
<p>Stakeholder analysis Explores the positions, interests, relationships</p>	<p>Stakeholder Analysis is an actor-oriented methodology. This methodology is useful for</p>	<p>Stakeholder analysis is most commonly used <i>prospectively</i>, as a tool for researchers and practitioners seeking to understand the feasibility</p>	<p>Assessing power and interests of stakeholders requires ‘interpretive judgements’ (Lucy Gilson et al. 2012)</p>

Topp SM, Schaaf M, Sriram V. et al Power analysis in health policy and systems research: a guide to research conceptualisation. *BMJ Global Health* 2021; 2021;0:e007268. doi:10.1136/ bmjgh-2021-007268

<p>and power relations of different stakeholders in a particular policy or practice context.</p>	<p>examining the sources and power differentials of key policy and health system actors from frontline healthcare workers to national level policy makers (L Gilson, Orgill, and Shroff 2018).</p>	<p>and prospects of a given policy and develop responses to likely challenges in formulating or implementing that policy (Abihiro and McIntyre 2013).</p> <p>Both qualitative and quantitative methods, including network analysis (Heydari et al. 2018) can be used, and it can be useful for examining power struggles, for example, when trying to understand who will contest or oppose a policy (Lucy Gilson et al. 2012; Schmeer 1999).</p>	<p>which require a strong understanding of the context and analyst positionality. This method has less of a focus on identifying or explaining specific ‘interfaces’ than in Actor Interface Analysis.</p>
<p>Big data analytics Examines high volume, high diversity, biological, clinical, environmental, and behavioural information collected from single individuals to large cohorts at one or several time points (Auffray et al. 2016)</p>	<p>Big data analytics can demonstrate patterns in health outcomes, decision making and behaviours (OECD 2014), health policy (e.g. resourcing, implementation fidelity and outcomes (Schintler and Kulkarni 2014) and health system function (e.g. patient and provider behaviours) (Pastorino et al. 2019; Shafqat et al. 2020)</p>	<p>When applied in conjunction with a power lens big data analytics can reveal important (and often masked) trends or patterned experiences, prompting further explanatory work or evaluative action (Kolkman 2020). For example, Yu et al (2019) use big data analytics to explore the influence of private medical providers in promoting unnecessary medical interventions (Yu et al, 2019); while Santana show how health insurance data can be modelled as a social network to reveal the role of physician networks in referral decisions (Santana et al. 2018).</p> <p>Big data analytics could also help identify systemic discrimination, information asymmetry, patient-provider dynamics and their influence on care quality and responsiveness. Galetsi et al observe their potential for traditional decision making within the doctor-patient relationship (Galetsi et al., 2019). Shah et al, too demonstrate how</p>	<p>Given its volume and velocity, as well as its potential interest to profit seeking entities, big data presents unique challenges for ethics, boundaries, and reflexivity. In particular, researchers should consider the potential mis-uses of the data, the extent to which the data manipulated accurately represents the factors of interest (construct validity), and which individuals and groups are overlooked in analyses that focus on the mean (or median), a challenge that is inherent to most quantitative analyses (Vayena et al. 2018).</p> <p>Adaptations of the objectivist life-cycle of big data research (<i>formulate question / data collection / data</i></p>

Topp SM, Schaaf M, Sriram V. et al Power analysis in health policy and systems research: a guide to research conceptualisation. *BMJ Global Health* 2021; 2021;0:e007268. doi:10.1136/ bmjgh-2021-007268

		analysis of online physician reviews (OPRs) could promote inclusion of patient ‘voice’ and preferences in otherwise largely quantitatively driven process-evaluations of healthcare quality (Shah et al. 2020).	<i>storage & transfer / data analysis / report & visualization / evaluation</i>) include Socio-Technical Systems (STS) perspectives (Muhammad, Teoh, and Wickramasinghe 2012) and Actor Network Theory (ANT) (Iyamu and Mgudlwa 2018).
Social network analysis The quantitative study of relationship patterns among actors, i.e., people, groups or organizations (Blanchet and James 2012; Hawe, Webster, and Shiell 2004)	This methodology draws from sociology and mathematical foundations of graph theory to examine the structure and patterns (Borgatti et al. 2009). Social network analysis can enable the study of power by illuminating how the nature of actors and connections (number, strength, type) enable forms of power such as money, pressure, influence, and knowledge to be concentrated, spread, blocked or engaged. In addition to helping understand the nature of relations between and among actors in a system, social network analysis supports examination of how relationships influence the structure of a system (Borgatti et al. 2009).	The value of SNA lies in its ability to illuminate underlying structures and networks that formally and informally influence practices, policy and programs (Blanchet and James 2012). Examples of the application of SNA to investigate power include understanding health sector reforms (Wang 2013), identifying institutional networks and their involvement in the devolution of financial resources (Etemadi et al. 2017) and exploring the relative importance of personal relationships as compared to formal hierarchical positions (Shearer, Dion, and Lavis 2014).	Quantifying relationships can be resource intensive and mask nuances in the relationships and dynamics between actors. Reflexivity in conducting social network analysis demands that researchers are self-critical and transparent about their decisions on boundaries for which actors they will include and exclude and how they choose to measure and define connections (Laumann et al., 1989).
Social epidemiology A subfield of epidemiology concerned with the relationships	Techniques from epidemiology are productively applied to questions of power in health systems by	For example, research into the impact of the U.S. Civil Rights Act revealed how elevated maternal mortality rates among Black women in the U.S. south was due in part to hospitals denying them	The use of epidemiological methods to study power requires careful thought about how constructs are defined and measured, such as, for

Topp SM, Schaaf M, Sriram V. et al Power analysis in health policy and systems research: a guide to research conceptualisation. *BMJ Global Health* 2021; 2021;0:e007268. doi:10.1136/ bmjgh-2021-007268

<p>between social factors, including social hierarchies and social phenomena, and health.</p>	<p>examining the impact of health and social policy on health status.</p> <p>Indicators of health status are the primary outcomes of interest, and can be used to explore and highlight policy priorities for health system actors such as health service coverage, financial protection, and inter-personal quality of care (Berkman, Kawachi, and Glymour 2014).</p>	<p>entry (Almond and Chay 2006). Other quantitative and mixed methods research has shown how insurance, user fees, fee exemptions and other mechanisms for payment influence inequities in health care access and utilization (Atchessi, Ridde, and Zunzunegui 2016; De Allegri et al. 2015).</p>	<p>example, making “experience of caste-ism” or “experience of racism” as the exposure of interest, rather than caste or race (O’Brien et al. 2020).</p> <p>Moreover, it is important to avoid “black-box epidemiology” which detects associations between exposures and outcomes, without adequate theorizing and measurement of the mechanisms and explanation for these outcomes (Jackson and Arah 2020; Wemrell et al. 2016).</p>
<p>Historical research Historical research aims to generate systematic explanatory narratives relating to past events, places or people. Historical evidence includes visual, audio and text-based materials (archival material, communications, policy documents and project reports) and first-person accounts (oral histories). Principles from case study research such as process tracing,</p>	<p>The inclusion of historical methods can surface underlying structures and systems of power as they have developed over time. In the context of HPSR, social historians may focus on the ways that health and other social policies and systems shape inequities (Szreter 1988) or, the ways that different groups accepted, adapted, and subverted the dictates of colonial medicine (Anderson 2014; Sivaramakrishnan 2006) or neo-colonial or internal colonial forms of public health practice (Cueto and Palmer, 2015; Stepan, 1991. Economic and political historians trace the impact</p>	<p>The study of history can illuminate broad power-related themes that continue to be relevant, such as the interface between individual liberty and domestic governmental health objectives (e.g. Colgrove, 2004); medical experimentation, social control, and scientific racism (Gutiérrez and Fuentes 2009; Reverby 2012); corporate profit-making, governmental interference, and population health (Reubi and Berridge 2016); and global health as a vehicle for state-craft, diplomacy, population control, and Western-centric conceptions of charity (Birn 2014; Chorev 2012; Connelly and Connelly 2009; Packard 2016; Quevedo Velez 2001).</p> <p>Such themes have immediate relevance as they shape phenomena such as how vaccination and</p>	<p>Using a power lens in the approach to archival research requires a consideration of “how attentions were trained and selectively cast” in the storing and cataloguing of material remains (Stoler, 2009, p. 1); relationships of power shape what is saved in official archives versus what is lost or destroyed. Insofar as traditional historical approaches can privilege written work, it may elide the perspectives of historically oppressed groups. To combat this tendency, alternative methods such as participatory oral historical or community-based sourcing of visual, audio and text-based records not</p>

Topp SM, Schaaf M, Sriram V. et al Power analysis in health policy and systems research: a guide to research conceptualisation. *BMJ Global Health* 2021; 2021;0:e007268. doi:10.1136/bmjgh-2021-007268

<p>discourse analysis, and other methodologies and methods delineated here could inform how the material is both sourced and analysed.</p>	<p>of policy and political changes on health status (e.g. as a social determinant of health), or on the development of institutions (including formal institutions, such as WHO, and institutions as 'rules of the game') on the consolidation of prevailing assumptions and approaches to health policy and service delivery (Agyepong 2018; Woolcock, Szreter, and Rao 2020).</p>	<p>family planning interventions are perceived by those groups who have been on the receiving end of past state-sanctioned abuses. They also offer broader explanatory value as 'cases' for the development of theory related to power (Szreter and Woolcock 2004) and as case studies for contemporary policy debates.</p>	<p>located in 'official' repositories, would open up alternative analytical possibilities. Finally, the tendency in global health to extract "lessons" from history or to use history to justify certain courses of political action, can obfuscate the dynamics of power that shape the creation of historical narratives and their translation into HPSR debates.</p>
--	---	---	---

Topp SM, Schaaf M, Sriram V. et al Power analysis in health policy and systems research: a guide to research conceptualisation. *BMJ Global Health* 2021; 2021;0:e007268. doi:10.1136/bmjgh-2021-007268

References

- Abihiro, Gilbert Abotisem, and Di McIntyre. 2013. "Universal Financial Protection through National Health Insurance: A Stakeholder Analysis of the Proposed One-Time Premium Payment Policy in Ghana." *Health Policy and Planning* 28 (3): 263–78. <https://doi.org/10.1093/heapol/czs059>.
- Agyepong, Irene A. 2018. "Universal Health Coverage: Breakthrough or Great White Elephant?" *The Lancet* 392 (10160): 2229–36. [https://doi.org/10.1016/S0140-6736\(18\)32402-4](https://doi.org/10.1016/S0140-6736(18)32402-4).
- Almond, Douglas, and Kenneth Chay. 2006. "The Long-Run and Intergenerational Impact of Poor Infant Health: Evidence from Cohorts Born During the Civil Rights Era," January.
- Anderson, Warwick. 2014. "Making Global Health History: The Postcolonial Worldliness of Biomedicine." *Social History of Medicine* 27 (2): 372–84. <https://doi.org/10.1093/shm/hkt126>.
- Aryeetey, Genevieve C., Caroline Jehu-Appiah, Agnes M. Kotoh, Ernst Spaan, Daniel K. Arhinful, Rob Baltussen, Sjaak van der Geest, and Irene A. Agyepong. 2013. "Community Concepts of Poverty: An Application to Premium Exemptions in Ghana's National Health Insurance Scheme." *Globalization and Health* 9 (1): 12. <https://doi.org/10.1186/1744-8603-9-12>.
- Atchessi, Nicole, Valéry Ridde, and Maria-Victoria Zunzunegui. 2016. "User Fees Exemptions Alone Are Not Enough to Increase Indigent Use of Healthcare Services." *Health Policy and Planning* 31 (5): 674–81. <https://doi.org/10.1093/heapol/czv135>.
- Auffray, Charles, Rudi Balling, Inês Barroso, László Bencze, Mikael Benson, Jay Bergeron, Enrique Bernal-Delgado, et al. 2016. "Making Sense of Big Data in Health Research: Towards an EU Action Plan." *Genome Medicine* 8 (1): 71. <https://doi.org/10.1186/s13073-016-0323-y>.
- Berkman, LF, I Kawachi, and MM Glymour. 2014. *Social Epidemiology*. Second. Cambridge, MA: Oxford University Press.
- Birn, A.-E. 2014. "Backstage: The Relationship between the Rockefeller Foundation and the World Health Organization, Part I: 1940s-1960s." *Public Health* 128 (2): 129–40. <https://doi.org/10.1016/j.puhe.2013.11.010>.
- Blanchet, Karl, and Philip James. 2012. "How to Do (or Not to Do) ... a Social Network Analysis in Health Systems Research." *Health Policy and Planning* 27 (5): 438–46. <https://doi.org/10.1093/heapol/czr055>.
- Blatter, Joachim, and Markus Haverland. 2014. "Case Studies and (Causal-) Process Tracing." In , 59–83. https://doi.org/10.1057/9781137314154_4.
- Chorev, N. 2012. *The World Health Organization between North and South*. Ithaca, NY: Cornell University Press.
- Collinson, S. 2003. "Power, Livelihoods and Conflict: Case Studies in Political Economy Analysis for Humanitarian Action." HPG Report 13. London, UK: Humanitarian Policy Group, Overseas Development Institute.
- Connelly, M, and MJ Connelly. 2009. *Fatal Misconception: The Struggle to Control World Population*. Cambridge, MA: Harvard University Press.
- Creswell, JW, and CN Poth. 2017. *Qualitative Inquiry and Research Design: Choosing Among Five Approaches*. SAGE Publications.
- Croke, Kevin. 2012. "The Political Economy of Child Mortality Decline in Tanzania and Uganda, 1995–2007." *Studies in Comparative International Development* 47 (4): 441–63. <https://doi.org/10.1007/s12116-012-9120-9>.
- De Allegri, Manuela, Justin Tiendrebéogo, Olaf Müller, Maurice Yé, Albrecht Jahn, and Valéry Ridde. 2015. "Understanding Home Delivery in a Context of User Fee Reduction: A Cross-Sectional Mixed Methods Study in Rural Burkina Faso." *BMC Pregnancy and Childbirth* 15 (1): 330. <https://doi.org/10.1186/s12884-015-0764-0>.
- Etemadi, Manal, Hasan Abolghasem Gorji, Hannaneh Mohammadi Kangarani, and Kioomars Ashtarian. 2017. "Power Structure among the Actors of Financial Support to the Poor to Access Health

Topp SM, Schaaf M, Sriram V. et al Power analysis in health policy and systems research: a guide to research conceptualisation. *BMJ Global Health* 2021; 2021;0:e007268. doi:10.1136/bmjgh-2021-007268

- Services: Social Network Analysis Approach.” *Social Science & Medicine* 195 (December): 1–11. <https://doi.org/10.1016/j.socscimed.2017.10.026>.
- Freire, P. 1974. *Education for Critical Consciousness*. London, UK: Continuum.
- Gilson, L, M Orgill, and ZC Shroff. 2018. “A Health Policy Analysis Reader: The Politics of Policy Change in Low- and Middle-Income Countries.” Alliance for Health Policy and Systems Research and World Health Organization.
- Gilson, Lucy, Ermin Erasmus, Jo Borghi, Janet Macha, Peter Kamuzora, and Gemini Mtei. 2012. “Using Stakeholder Analysis to Support Moves towards Universal Coverage: Lessons from the SHIELD Project.” *Health Policy and Planning* 27 Suppl 1 (March): i64-76. <https://doi.org/10.1093/heapol/czs007>.
- Gutiérrez, Elena R, and Liza Fuentes. 2009. “Population Control by Sterilization: The Cases of Puerto Rican and Mexican-Origin Women in the United States.” *Latino(a) Research Review* 7 (3): 85–100.
- Hagene, Turid. 2018. “The Power of Ethnography: A Useful Approach to Researching Politics.” *Forum for Development Studies* 45 (2): 305–25. <https://doi.org/10.1080/08039410.2017.1366360>.
- Hammersley, M, and P Atkinson. 1995. *Ethnography: Principles in Practice*. Routledge.
- Hawe, Penelope, Cynthia Webster, and Alan Shiell. 2004. “A Glossary of Terms for Navigating the Field of Social Network Analysis.” *Journal of Epidemiology and Community Health* 58 (12): 971–75. <https://doi.org/10.1136/jech.2003.014530>.
- Hernández, Alison, Anna-Karin Hurtig, Isabel Goicolea, Miguel San Sebastián, Fernando Jerez, Francisco Hernández-Rodríguez, and Walter Flores. 2020. “Building Collective Power in Citizen-Led Initiatives for Health Accountability in Guatemala: The Role of Networks.” *BMC Health Services Research* 20 (1): 416. <https://doi.org/10.1186/s12913-020-05259-6>.
- Heydari, Majid, Hesam Seyedin, Mehdi Jafari, and Reza Dehnavieh. 2018. “Stakeholder Analysis of Iran’s Health Insurance System.” *Journal of Education and Health Promotion*. Wolters Kluwer Medknow Publications.
- Hodges, Brian David, Ayelet Kuper, and Scott Reeves. 2008. “Discourse Analysis.” *BMJ* 337 (August).
- Irwin, Rachel, and Richard Smith. 2019. “Rituals of Global Health: Negotiating the World Health Assembly.” *Global Public Health* 14 (2): 161–74. <https://doi.org/10.1080/17441692.2018.1504104>.
- Iyamu, Tiko, and Sibulela Mgudlwa. 2018. “Transformation of Healthcare Big Data through the Lens of Actor Network Theory.” *International Journal of Healthcare Management* 11 (3): 182–92. <https://doi.org/10.1080/20479700.2017.1397340>.
- Jackson, John W, and Onyebuchi A Arah. 2020. “Invited Commentary: Making Causal Inference More Social and (Social) Epidemiology More Causal.” *American Journal of Epidemiology* 189 (3): 179–82. <https://doi.org/10.1093/aje/kwz199>.
- Jain, Sumeet, and Sushrut Jadhav. 2009. “Pills That Swallow Policy: Clinical Ethnography of a Community Mental Health Program in Northern India.” *Transcultural Psychiatry* 46 (1): 60–85. <https://doi.org/10.1177/1363461509102287>.
- Kapilashrami, Anuj, and Barbara McPake. 2013. “Transforming Governance or Reinforcing Hierarchies and Competition: Examining the Public and Hidden Transcripts of the Global Fund and HIV in India.” *Health Policy and Planning* 28 (6): 626–35. <https://doi.org/10.1093/heapol/czs102>.
- Khanlou, N., and E. Peter. 2005. “Participatory Action Research: Considerations for Ethical Review.” *Social Science & Medicine* (1982) 60 (10): 2333–40. <https://doi.org/10.1016/j.socscimed.2004.10.004>.
- Kolkman, Daan. 2020. “The Usefulness of Algorithmic Models in Policy Making.” *SocArXiv*. <https://doi.org/doi:10.1016/j.giq.2020.101488>.
- Laumann, Edward, Peter Marsden, and David Prensky. 1983. “The Boundary Specification Problem in Network Analysis.” *Applied Network Analysis: A Methodological Introduction* 61 (January).
- Lehmann, U., and L. Gilson. 2013. “Actor Interfaces and Practices of Power in a Community Health Worker Programme: A South African Study of Unintended Policy Outcomes.” *Health Policy Plan* 28: 358–66.

Topp SM, Schaaf M, Sriram V. et al Power analysis in health policy and systems research: a guide to research conceptualisation. *BMJ Global Health* 2021; 2021;0:e007268. doi:10.1136/bmjgh-2021-007268

- Loewenson, R, AC Laurell, C Hogstedt, L D'Ambruoso, and Z Shroff. 2014. "Participatory Action Research in Health Systems: A Methods Reader." Harare, Zimbabwe: TARSC, AHPSR, WHO, IDRC Canada, EQUINET.
- Long, Norman. 2001. *Development Sociology: Actor Perspectives*. London, UK: Routledge.
- Malajovich, Laura, Maria Antonieta Alcalde, Kelly Castagnaro, and Carmen Barroso. 2012. "Budget Transparency on Maternal Health Spending: A Case Study in Five Latin American Countries." *Reproductive Health Matters* 20 (39): 185–195. [https://doi.org/10.1016/s0968-8080\(12\)39607-9](https://doi.org/10.1016/s0968-8080(12)39607-9).
- Mathias, Kaaren, Pooja Pillai, Rakhal Gaitonde, Kakul Shelly, and Sumeet Jain. 2019. "Co-Production of a Pictorial Recovery Tool for People with Psycho-Social Disability Informed by a Participatory Action Research Approach—a Qualitative Study Set in India." *Health Promotion International* 35 (3): 486–99. <https://doi.org/10.1093/heapro/daz043>.
- Minkler, M. 2000. "Using Participatory Action Research to Build Healthy Communities." *Public Health Reports (Washington, D.C. : 1974)* 115 (2–3): 191–97. <https://doi.org/10.1093/phr/115.2.191>.
- Mishra, Arima, and Devaki Nambiar. 2018. "On the Unraveling of 'Revitalization of Local Health Traditions' in India: An Ethnographic Inquiry." *International Journal for Equity in Health* 17 (1): 175. <https://doi.org/10.1186/s12939-018-0890-1>.
- Muhammad, Imran, S. Teoh, and N. Wickramasinghe. 2012. "Why Using Actor Network Theory (ANT) Can Help to Understand the Personally Controlled Electronic Health Record (PCEHR) in Australia." *InnovaInt. J. Actor Netw. Theory Technol. Innov.* 4: 44–60.
- Nambiar, Devaki. 2013. "India's 'Tryst' with Universal Health Coverage: Reflections on Ethnography in Indian Health Policymaking." *Social Science & Medicine (1982)* 99 (December): 135–42. <https://doi.org/10.1016/j.socscimed.2013.08.022>.
- Nyamongo, I.K. 2002. "Health Care Switching Behaviour of Malaria Patients in a Kenyan Rural Community." *Social Science & Medicine* 54 (3): 377–86. [https://doi.org/10.1016/S0277-9536\(01\)00036-3](https://doi.org/10.1016/S0277-9536(01)00036-3).
- Nyoka, Bongani. 2019. "Bernard Magubane's Critique of Anthropology in Southern Africa: An Introductory Essay." *Journal of Contemporary African Studies* 37 (2–3): 169–90. <https://doi.org/10.1080/02589001.2019.1662892>.
- O'Brien, Rourke, Tiffany Neman, Nathan Seltzer, Linnea Evans, and Atheendar Venkataramani. 2020. "Structural Racism, Economic Opportunity and Racial Health Disparities: Evidence from U.S. Counties." *SSM - Population Health* 11 (March): 100564–100564. <https://doi.org/10.1016/j.ssmph.2020.100564>.
- OECD. 2014. "Unleashing the Power of Big Data for Alzheimer's Disease and Dementia Research." <https://www.oecd-ilibrary.org/content/paper/5jz73kvmvbw-en>.
- Packard, Randall. 2016. *A History of Global Health: Interventions Into the Lives of Other Peoples*. Baltimore, MD: Johns Hopkins University Press.
- Pastorino, Roberta, Corrado De Vito, Giuseppe Migliara, Katrin Glocker, Ilona Binenbaum, Walter Ricciardi, and Stefania Boccia. 2019. "Benefits and Challenges of Big Data in Healthcare: An Overview of the European Initiatives." *European Journal of Public Health*.
- Pigg, Stacy Leigh. 2013. "On Sitting and Doing: Ethnography as Action in Global Health." *Social Science & Medicine (1982)* 99 (December): 127–34. <https://doi.org/10.1016/j.socscimed.2013.07.018>.
- Quevedo Velez, E. 2001. "La Salud Pública En Colombia: Seis Siglos Entre El Interes Internacional y El Desinterés Nacional." *Revista Del Colegio Mayor de Nuestra Señora Del Rosari* 95 (588): 5–29.
- Reich, Michael R. 2019. "Political Economy Analysis for Health." *Bulletin of the World Health Organization* 97 (8): 514–514. <https://doi.org/10.2471/BLT.19.238311>.
- Reubi, David, and Virginia Berridge. 2016. "The Internationalisation of Tobacco Control, 1950-2010." *Medical History* 60 (4): 453–72. <https://doi.org/10.1017/mdh.2016.97>.
- Reverby, SM. 2012. *Tuskegee's Truths: Rethinking the Tuskegee Syphilis Study*. UNC Press Books.
- Rotarou, Elena S., and Dikaios Sakellariou. 2017. "Neoliberal Reforms in Health Systems and the Construction of Long-Lasting Inequalities in Health Care: A Case Study from Chile." *Health Policy (Amsterdam, Netherlands)* 121 (5): 495–503. <https://doi.org/10.1016/j.healthpol.2017.03.005>.

Topp SM, Schaaf M, Sriram V. et al Power analysis in health policy and systems research: a guide to research conceptualisation. *BMJ Global Health* 2021; 2021;0:e007268. doi:10.1136/bmjgh-2021-007268

- Santana, Vagner Figueredo de, Ana Paula Appel, Luis Gregorio Moyano, Marcia Ito, and Claudio Santos Pinhanez. 2018. "Revealing Physicians Referrals from Health Insurance Claims Data." *Big Medical/Healthcare Data Analytics* 13 (September): 3–10. <https://doi.org/10.1016/j.bdr.2018.03.002>.
- Schintler, Laurie A., and Rajendra Kulkarni. 2014. "Big Data for Policy Analysis: The Good, The Bad, and The Ugly." *Review of Policy Research* 31 (4): 343–48. <https://doi.org/10.1111/ropr.12079>.
- Schmeer, K. 1999. "Guidelines for Conducting a Stakeholder Analysis." In . Abt Associates.
- Schutz, A. 1962. *The Problem of Social Reality*. The Hague: Mijhoff.
- Shafqat, Sarah, Saira Kishwer, Raihan Ur Rasool, Junaid Qadir, Tehmina Amjad, and Hafiz Farooq Ahmad. 2020. "Big Data Analytics Enhanced Healthcare Systems: A Review." *The Journal of Supercomputing* 76 (3): 1754–99. <https://doi.org/10.1007/s11227-017-2222-4>.
- Shah, Adnan Muhammad, Xiangbin Yan, Samia Tariq, and Salim Khan. 2020. "Listening to the Patient Voice: Using a Sentic Computing Model to Evaluate Physicians' Healthcare Service Quality for Strategic Planning in Hospitals." *Quality & Quantity*, June. <https://doi.org/10.1007/s11135-020-00999-3>.
- Shearer, Jessica C., Michelle Dion, and John N. Lavis. 2014. "Exchanging and Using Research Evidence in Health Policy Networks: A Statistical Network Analysis." *Implementation Science* 9 (1): 126. <https://doi.org/10.1186/s13012-014-0126-8>.
- Sheikh, K, L Gilson, I.A. Agyepong, K. Hanson, F. Ssengooba, and S. Bennett. 2011. "Building the Field of Health Policy and Systems Research: Framing the Questions." *PLoS Medicine* 8: 1001073.
- Shiffman, J., and S. Smith. 2007. "Generation of Political Priority for Global Health Initiatives: A Framework and Case Study of Maternal Mortality." *The Lancet* 370: 1370–79.
- Sieleunou, Isidore, Anne-Marie Turcotte-Tremblay, Jean-Claude Taptué Fotso, Denise Magne Tamga, Habakkuk Azinyui Yumo, Estelle Kouokam, and Valery Ridde. 2017. "Setting Performance-Based Financing in the Health Sector Agenda: A Case Study in Cameroon." *Globalization and Health* 13 (1): 52. <https://doi.org/10.1186/s12992-017-0278-9>.
- Sivaramakrishnan, K. 2006. *Old Potions. New Bottles: Recasting Indigenous Medicine in Colonial Punjab, 1945*. Orient Longman.
- Sriram, Veena, Stephanie M Topp, Marta Schaaf, Arima Mishra, Walter Flores, Subramania Raju Rajasulochana, and Kerry Scott. 2018. "10 Best Resources on Power in Health Policy and Systems in Low- and Middle-Income Countries." *Health Policy and Planning* 33 (4): 611–21. <https://doi.org/10.1093/heapol/czy008>.
- Steel, EJ. 2019. "The Duplicity of Choice and Empowerment: Disability Rights Diluted in Australia's Policies on Assistive Technology." *Societies* 9 (39).
- Szreter, Simon. 1988. "The Importance of Social Intervention in Britain's Mortality Decline c.1850–1914: A Re-Interpretation of the Role of Public Health1." *Social History of Medicine* 1 (1): 1–38. <https://doi.org/10.1093/shm/1.1.1>.
- Szreter, Simon, and Michael Woolcock. 2004. "Health by Association? Social Capital, Social Theory, and the Political Economy of Public Health." *International Journal of Epidemiology* 33 (4): 650–67. <https://doi.org/10.1093/ije/dyh013>.
- Vayena, Effy, Joan Dzenowagis, John S. Brownstein, and Aziz Sheikh. 2018. "Policy Implications of Big Data in the Health Sector." *Bulletin of the World Health Organization* 96 (1): 66–68. <https://doi.org/10.2471/BLT.17.197426>.
- Wang, Guang-Xu. 2013. "Policy Network Mapping of the Universal Health Care Reform in Taiwan: An Application of Social Network Analysis." *Journal of Asian Public Policy* 6 (3): 313–34. <https://doi.org/10.1080/17516234.2013.850229>.
- Wemrell, Maria, Juan Merlo, Shai Mulinari, and Anne-Christine Hornborg. 2016. "Contemporary Epidemiology: A Review of Critical Discussions Within the Discipline and A Call for Further Dialogue with Social Theory." *Sociology Compass* 10 (2): 153–71. <https://doi.org/10.1111/soc4.12345>.
- Woolcock, Michael, Simon Szreter, and V Rao. 2020. "How and Why History Matters for Development Policy." In *History, Historians and Development Policy*. Manchester University Press.

Topp SM, Schaaf M, Sriram V. et al Power analysis in health policy and systems research: a guide to research conceptualisation. *BMJ Global Health* 2021; 2021;0:e007268. doi:10.1136/bmjgh-2021-007268

Yazdannik, Ahmadreza, Alireza Yousefy, and Sepideh Mohammadi. 2017. "Discourse Analysis: A Useful Methodology for Health-Care System Researches." *Journal of Education and Health Promotion*. Wolters Kluwer Medknow Publications.

Yin, RK. 2014. *Case Study Research: Design and Methods*. Fifth. SAGE Publications.