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Questioning global health in the times of COVID-19: Re-imagining primary health care through the lens of politics of knowledge

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The advent of the COVID-19 pandemic and the inequitable response to it has created a space for rethinking the knowledge translation that informs current health policy formulation and planning. Wide recognition of the failure of global health governance and national health systems has led to calls for reviving the Primary Health Care (PHC) agenda for post-COVID health systems development. Despite the joint international declaration on PHC made four decades ago, it has had limited application. This paper argues that the recent attempts to rethink PHC will prove inadequate without analysing and learning from the politics of knowledge (PoK) underlying global health policy and planning. Even with the growing relevance of the spirit of the Alma-Ata Declaration (1978) and its operationalisation as detailed in the report of conference proceedings, reassessment of reasons for its limited implementation continues to be located largely in the political economy of the medical establishment, the international economic order or in national governance flaws. Failure to address the dominant knowledge paradigm in the Alma Ata articulation of PHC has contributed to its limited application. This calls for expansion in the analysis from knowledge translation to generation and hierarchisation of knowledge. The paper discusses how the application of PoK as an analytical lens helps understand the power equations underlying the process of knowledge generation and its translation into policy and practice. Beneath the techno-centric and commodified health system is the dominant 'knowledge' system whose foundations and assumptions ought to be interrogated. By following a PoK approach, a reorientation of thinking about the relationship between various forms of knowledge and knowledge holders is anticipated. A new health service system design is outlined—translating the spirit of PHC of 1978 into a 'PHC Version 2.0'—that addresses the PoK gap in operational terms, with an approach to guide all levels of healthcare. It suggests how the world can be empowered to respond better by engaging with diverse ontologies and epistemologies to conceptualise knowledge and frame policies. Further, in the contexts of Asia, Africa and Latin America, it can contribute to the development of self-reliance to democratise general health policy and planning in the post-pandemic period.

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Introduction

As the COVID-19 pandemic exacerbated the ongoing healthcare crisis, there is a call for a thoughtful engagement of the practice of global health/public health with its ontological and epistemological foundations (El Bcheraoui et al., 2020). The dominant narratives informing pandemic control (modelling projections and containment measures) across the world were largely informed by a knowledge base operating in the contemporary global health framework. Given the tremendous health and social consequences of the pandemic and, ironically, its control measures, the push for change in the structure and operationalization of global health is high on national and international agendas (Hassan et al., 2021). Various experts have indicated the need for reviewing and restructuring global health (Casale, 2020; Dentico, 2021). There is also a perennial contestation over the approaches to health systems design developed by various global health (or erstwhile international health) actors (Sarkar, 2019), which defines the operative schema of national health services. The most significant example is the call for Primary Health Care (PHC) approach developed in the Alma-Ata Declaration (1978) for rebuilding national health systems invoked regularly during health system crises.

The COVID-19 catastrophe was unprecedented, but the current crisis is also a result of issues that have been plaguing the healthcare system for a long time. Forty years after the adoption of the PHC approach to attain Health for All, access to quality healthcare continues to be a distant goal for the majority of the world. Health services are becoming unaffordable for the largest economies and their middle class (Dickman et al., 2017; Dutton et al., 2018). Inequalities in health indicators and inequities in access to health care are growing (Barreto, 2017). Unsafe practices compounded by profiteering and corruption abound (Vian, 2007; Berger, 2014). Having recognised these challenges prior to the pandemic, the third Sustainable Development Goal which seeks to achieve better health and well-being invoked Universal Health Coverage (UHC)—the dominant global health slogan since the 2000s (World Health Organisation, 2005)—as its major strategy. However, the WHO-UNICEF-led Global Conference at Astana in 2018 declared the PHC approach to be foundational for achieving UHC and the health-related Sustainable Development Goals (World Health Organization, United Nations Children's Fund, 2018). The experience of the COVID-19 pandemic reinforced the demand for the PHC approach as an alternate conceptualisation of health systems design (World Health Organisation, 2021). The World Bank has called for reimagining PHC as a "once-in-a-generation chance for structural health system change" (World Bank, 2021). A recent publication in the British Medical Journal also argued that the COVID-19 pandemic demands the visions of PHC be translated into action for strengthening health systems (Rifkin et al., 2021).

Nevertheless, the last 40 years have witnessed limited implementation of the PHC approach (Rao, 2009). Acknowledging that the spirit of the Alma-Ata Declaration of 1978 is highly relevant in the present and for the agenda to be carried forward, it is imperative to examine the reasons for its limited implementation before and during the pandemic. Existing analyses show an academic preoccupation with categories like actors, sectional interests, and financing in global health (Navarro, 1984; Phadke and Shukla, 2006; Labonté et al., 2017). There is a limited reflection on the intellectual processes that legitimise the collaboration of actors, alignment of agendas, and matching of financing for any policy, programme, or conduct of governance. Thus, knowledge as the intellectual content underlying global health policy is a point of departure in this analysis of the global health/public health complex.

We argue that the PoK reflected in the PHC documents and discourse and the Knowledge Translation underpinning the global health systems development policy from 1978 to the 2000s created a path dependency that has constrained the UHC initiatives and led to the COVID-19 debacle of health care.

Knowledge translation and politics of knowledge

Knowledge plays a pivotal role in the path of development, and thus, in policy-making and governance (Cooper and Packard, 1997; Colebatch, 2015). Conventionally, the uptake of scientific health research into action is knowledge translation with regard to biomedical clinical practice and related policy decisions (Straus et al., 2009). Public health, classically defined as the "science and art of preventing disease, prolonging life and promoting physical and mental health and well-being through organised community efforts…….and development of the social machinery which will ensure to every individual in the community a standard of living adequate for the maintenance of health" (Winslow, 1920) produces an additional body of knowledge. From the 'science' of public health, the process of knowledge translation contributes to shaping the 'art' of public health. In this regard, biomedical, epidemiological, social, and systemic knowledge is further mediated by technological, institutional, normative, cultural, political, and financial factors in the process of knowledge translation for its implementation (United Nations Research Institute for Social Development, 2021). This makes knowledge translation a complex process across the different fields of clinical practice, public health activities, health policy, systems design and implementation (Grimshaw et al., 2012).

Critics of policy processes as 'knowledge translation' have argued that this is a technocratic view that presumes that the knowledge applied is worthy in itself and need not be interrogated (Greenhalgh and Wieringa, 2011; Morgan-Trimmer, 2014). They contend that this narrows the analytical question by ignoring the social, political, and cultural processes underlying knowledge generation and its adoption to be translated into policy.

Diversity of epistemological traditions/perspectives and their hierarchisation is evident in the scholarship and practice of global health/public health particularly in the focus of research, nature of data generated, interpretation of data and then its translation into Public Health policy, programmes and service design (Pearce, 1996; Susser and Susser, 1996; Qadeer, 2000; Krieger, 2001). The diversity reflects biomedical versus social science approaches; social location and interest groups like feminist perspectives on autonomy and health care; laypeople versus expert perspectives; benefit-risk assessment by industry versus resident citizen groups; the global perspective versus national and local contextual diversity; knowledge generated from the perspectives of the historically colonised countries (now the LMICs) versus the colonisers (now HICs); and various health knowledge traditions and their underlying worldviews, ontologies and epistemologies. The diverse knowledge sources and their framings receive differential patronage from the state, the market, and powerful technical professional groups leading to hierarchical relations. This determines choice of knowledge for translation in terms of policy, governance decisions and systems design (Banerjee, 2021; Bhakuni and Abimbola, 2021; Sujatha and Payyappallimana, 2022). Despite the plurality of knowledge traditions related to human health, the prevailing dominant paradigm legitimised by the state, market, and technical professionals shapes societal acceptance of a particular form of knowledge creating an apparent hegemony. Yet, a range of other knowledge and perspectives reflecting the binaries mentioned above continue as living and emerging traditions. They may be marginal in a

society or quite substantial in practice but are invisible in mainstream discourse. The Foucauldian proposition of 'knowledge as power' is pertinent for this PoK. The translation of knowledge into policy and practice is ultimately a social and political process that is decided by the dominant paradigm of the times and the specific context of practice at national and local levels (Rawlinson, 1987). This makes it necessary to understand the barriers to the incorporation of knowledge plurality and complementarity in systems design (Peralta, 2018). To this end, the power relations constraining the democratisation of knowledge need to be identified and examined.

Thus, knowledge translation in public health research is not merely about communicating research knowledge to policymakers and governance actors (Morgan-Trimmer, 2014). Its expanded conceptualisation further raises questions such as: Are existing methodologies of knowledge generation and assessment of what constitutes proof or legitimate evidence appropriate for different forms of knowledge in health? What forms of knowledge and whose decisions determine what are considered to be valid foundations for medical and healthcare choices and practices (Brosnan and Kirby, 2016)? Does knowledge translation lead to structural devaluation of certain types of knowledge over others (Smith-Merry and Gillespie, 2016)? Does evidence-based practice mean ruling out experiential knowledge possessed by the practitioner in the field and of the 'non-scientific' people (Pope, 2003)? Can systematic reviews or research synthesis be the only unit of knowledge translation without exploring the influence wielded by knowledge partnership at the macro-level between researchers, practitioners, policymakers, and commercial interests (Greenhalgh and Wieringa, 2011; Grimshaw et al., 2012)? PoK is a field of enquiry that engages with these questions, drawing on insights from a range of disciplines including sociology, science and technology, political science and philosophy.

The role played by the dominant knowledge in the creation, adaptation, and legitimatisation/standardisation of formal institutions and more importantly, the way they problematise a given situation, gives rise to particular 'solutions' (Gaitonde et al., 2019). For instance, in the Indian context, when dominant institutions problematise public systems as 'inefficient', an obvious solution provided is privatisation. In such a conceptualisation, strengthening the public sector becomes an illegitimate solution. When microeconomics and management science are accorded importance, reducing average time spent in hospital by individual patients becomes the most significant indicator of 'efficiency' even if it involves cutting corners in patient care. However, when systemic equity and justice are primary criteria, assessment of efficiency is estimated in terms of input costs to output as a number of patients served and persons covered. Then the problematisation reverses in favour of public systems that serve more at a lower cost invoking the cause of efficiency and human rights. For holistic understanding of a system, an acute discernment of power vested in its discourse is required. Thus, a PoK approach attempts to trace how power relations shape knowledge production, translation, and circulation, and whether they exacerbate epistemic injustice in the process.

We propose to use this PoK approach to analyse the Alma Ata document and its implementation, which will allow us to identify the complexity and understand the societal/social–economic–political powers that inherently influence the processes of knowledge translation in public health/health policy. It goes a step ahead to question the priorities and process of knowledge creation itself and investigate which types of knowledge get selected and processed for translation, why and how. Drawing from such learnings, we argue that systems must be designed appropriately for knowledge generation, translation and governance to work in favour of all people's health and wellbeing in the spirit of the Alma Ata declaration.

In the post-industrial 'knowledge society', knowledge and expertise have come together through legitimisation by the state to govern politics, work and everyday life (Adolf and Stehr, 2016). Global health is not an exception, it is a knowledge umbrella today (Havemann and Bösner, 2018); a distinct social entity with immense power that produces knowledge and influences knowledge mainstreaming through financing of research and peer-reviewed publications, governs actors' behaviours, rationalises finances for the health sector, and shapes policies. So, it is pertinent to ask whether global health is decentralising knowledge through universal outreach or reinforcing centralisation through epistemic dominance. Hence, the central enquiry of this paper is to understand how the dominant knowledge generation, adoption and translation process, overwhelmingly informed by the global health discourse, has influenced the implementation of the PHC approach. We contend that this has created a path dependency drawing from the contradictions internal to the articulation of the PHC approach related to the PoK. Besides the political economy of health care, it is posited that these PoK contradictions are historically responsible for neglect of the primary health care approach, which, if they remain uncorrected, will render limited success to the contemporary efforts at strengthening PHC akin to previous efforts.

Methods

This paper is an outcome of a collective perspective-building exercise undertaken by public health academics who have been engaged in community participation and health systems initiatives in India as health care providers, public health practitioners, and researchers with civil society and social movement organisations, governmental agencies, universities and other research institutions (Priya, 2011, 2018; Gaitonde, 2012; Gaitonde et al., 2020; Ghodajkar, 2013; Sarkar, 2016; Gandhi, 2020; Loewenson et al., 2021). Sharing a common concern on the neglect of the Primary Health Care approach, they came together for collective enquiry, conducted desk research and intensive discussions on the themes of PHC, UHC and PoK. This led to an evolving perspective building that was shared through trans-disciplinary dialogues with other health systems academics and health activists over 3 years, 2017–2019. PoK emerged as an explanatory lens for the limited implementation of the PHC approach, and its understanding was refined over a number of workshops with a diverse range of participants from the year 2017 onwards.[1]

Under this overarching lens of the PoK, a narrative review of literature and document review was conducted, identifying and analysing grey literature, scholarly works and other information sources on health systems design in the realm of the PHC approach. The Alma-Ata Declaration documents (WHO-UNICEF, 1978) were purposively selected to carry out a content analysis and gap analysis as this is historically the most important articulation of an alternative health systems design in the debate of approaches to health systems development across the world. Due to the increased demand for more robust and resilient health systems, especially during the pandemic, the learnings from the gap analysis of the PHC approach are utilised to operationally design an alternative framework of PHC 2.0. Thus, peer-reviewed and grey literature along with explicit and tacit knowledge of a community of public health practitioners and analysts have formed the basis of a gap analysis of the Alma-Ata documents of PHC to illustrate the path dependency at work sans any meaningful engagement with the PoK.

The PHC approach and politics of knowledge

The idea of PHC acquired prominence through the innovative Alma Ata documents of 1978 that championed the call of 'Health

for All (HFA) by 2000 AD' through a PHC approach. Foregrounding the four principles of equity, community participation, appropriate technology and inter-sectoral coordination, PHC was proposed as an instrument to "close the gap between the *haves* and *have-nots*, achieve more equitable distribution of health resources, and attain a level of health for all the citizens of the world that will permit them to lead a socially and economically productive life" (WHO-UNICEF, 1978). Despite its limitations as a negotiated document across the geo-political divides of that time, it was successful in legitimising two central ideas—one, health is mediated by factors beyond those that are medical in nature, and therefore, development in other sectors as well as inter-sectoral coordination is essential for HFA; and two, the desirability of quality health services and health workers close to the community and community's participation in taking care of its own health. Thereby it implicitly shifted the exclusive locus of health knowledge away from the doctor and hospital to para-medics, community health workers and communities (Priya et al., 2019).

Re-reading history: a gap analysis. The causes for the limited adoption of the PHC approach have been located largely in the political economy of the medical establishment, the international economic order or in national governance flaws (Navarro, 1984; Phadke and Shukla, 2006; Labonté et al., 2017). Also, community participation, adoption of appropriate technology and inter-sectoral engagement were found to be the weakest strands in PHC implementation (Lawn et al., 2008). Lately, there is a demand for recognising "community health systems" and acknowledging various resources and skills available in community settings that can be utilised in the healing process (Emerson and Nabatchi, 2015).

In an attempt to complement these analyses with insights obtained using the PoK lens, we seek to understand the knowledge that has been instrumental in guiding the framing of the Alma Ata documents that articulated the PHC approach. Further, this paper attempts to develop the dimensions of PoK that will be able to effectively shape the health systems in the spirit of PHC (Priya et al., 2019).

The spirit of the Alma-Ata document (WHO-UNICEF, 1978) includes social justice, people's empowerment, and economic sustainability. With health visualised as an individual and collective attribute and an outcome of societal conditions, the document framed health services from the perspective of overall development. Emphasis was placed on contextually relevant healthcare, appropriate technologies and healthcare providers at levels as close as possible to the users. This led to the development of primary-level health services including community outreach across the world. Further, this ensured provisioning of mass healthcare by extending the legitimacy of health knowledge holders and practitioners from doctors and hospitals to paramedics and communities. However, its impact on health services was limited due to the political economy of the medical-industrial complex that continued to dominate. We argue that this was allowed by the Alma Ata report due to its lack of explicit acknowledgement of the PoK and addressing of its inequitous consequences in operational terms. This contributed to the subsequent limitations in knowledge translation and continuing legitimacy of the path to techno-managerial care.

It should be recognised that the Alma-Ata report (WHO-UNICEF, 1978) was neither adequately explicit about the inherent value of 'people's knowledge and perceptions', nor about 'people's empowerment', despite its emphasis on 'community participation' and health services being 'acceptable to the people'. Its articulation maintained an uncritical epistemic

supremacy of conventional expert-led biomedicine. It accepted the hegemonic position of 'modern' medical science and technology which require people to be educated to use them appropriately. This led to PHC strategies designed to attain 'health *for* the people' and 'health *with* the people', but rarely 'health *by* the people'. This neglect resulted from biomedicine being considered as the sole legitimate health-related knowledge and therefore, medical professionals as the natural knowledge leaders of the health system (Priya, 2022). Further, presenting PHC as a vision for the first level of care rather than for the whole health system led to it being largely perceived as addressing the lowest, i.e. the primary institutional level without affecting the structure and content of secondary and tertiary hospital services.

There were other inconsistencies observed in the document too. Though the focus of the document rested on primary-level care, it was still considered located at "the periphery", while secondary and tertiary levels remained "the centre" of health services (Ghodajkar et al., 2019), as in Fig. 1. Doctors and hospitals remained the bearers of supreme knowledge that had to be taken to the periphery through 'outreach' services. 'Iatrogenesis' [i.e. the ill-health generated as a result of medical interventions (Illich, 1977)] and the 'unaffordability' of services due to the proliferation of the medical industry and private sector went unaddressed; professional ethics was not mentioned; the environmental consequences of development which had not yet crystallised in public discourse by the 1970s were missing.

While the centrality of the community is underlined as a value in the Alma Ata declaration, calling it peripheral is an internal contradiction. However, this contradiction is in consonance with the exclusion of laypeople's health-related knowledge and practices in operational designs. Also, it led to a lack of in-depth attention to 'the community level' and its complexities as well as the operational requirements to strengthen health actions within it (World Health Organization, 2009; Savatagi et al., 2022). The 'community' was perceived as a homogenous entity, overlooking the hierarchies and contestations within it (such as class, race, caste, and gender). These contradictions of the Alma Ata document sowed seeds contributing to its limited implementation, further compounded by the antipathy to CPHC and democratisation of PoK of the medical–industrial complex and its professional, political, technocratic, and commercial interests.

The negotiated drafting of the Alma Ata documents had resulted in the omission of the politics of governance and critiques of the dominant biomedical knowledge and its practice. These gaps allowed the misinterpretation of the spirit of PHC as a mere techno-managerial systems design devoid of its dimensions of power. This allowed Selective PHC with an 'essential basic healthcare package' to be argued for as a feasible approach for implementing PHC (Walsh and Warren, 1979) over the more complex social, political, and cultural task of Comprehensive PHC. It initially got reduced to GOBI-FFF[2] which attempted to bring biomedical understanding to benefit vulnerable women and children through globally orchestrated mass 'campaigns' for non-medical and medical interventions (Chen, 1988; Wisner, 1988). Hence, the requirement to understand people's context, local resources, self-reliance and wider determinants of ill-health was eliminated from the PHC approach. The next advancement was the propagation of the new epidemiological tool of DALYs-based cost-effectiveness analyses that posited prioritisation of public health agendas based on decontextualised global epidemiological datasets and demonstrated the advantage of medical technological interventions over upstream non-medical interventions while claiming the application of the principle of 'equity' (World Bank, 1993; Priya, 2001; Barker and Green, 1996; Rao, 2009). This further skewed the system against local priorities and community-led initiatives (Banerji and Andersen, 1963;

Banerji, 1995; Peralta, 2018). Empowerment, thus, was presented by the knowledge generators and translators of the dominant public health system as the ability to "consume" global expert-defined "entitlements", rather than gain actual control over their own health and its determinants. The 'selective' translation of PHC suited the technocratic health bureaucracies, the political leadership and health professionals as it did not demand any significant shifts in power equations even when it led to engagement with the underserved communities. These were the communities who were considered reticent in utilising 'modern medicine' and contraception, or a more empathetic understanding was that they were the 'unreached' and therefore, GOBI-FFF was to be implemented in a top-down orchestrated 'campaign mode' (Chen, 1988). The larger shifts in approach to health care required for translation of Comprehensive PHC into policy and practice—the need for bottom-up knowledge and its application, health technology assessment for 'appropriateness', and changes in secondary and tertiary level services as supportive of the PHC approach—were side-lined. Traditional healers were referred to as community influencers to be utilised for primary-level conventional biomedical services with appropriate training, rather than as holders of useful knowledge:

"Traditional medical practitioners and birth attendants ….are often part of the local community, culture and traditions and continue to have a high social standing in many places, exerting considerable influence on local health practices. With the support of the formal health system, these indigenous practitioners can become important allies in organising efforts to improve the health of the community … It is, therefore, worthwhile exploring the possibilities of engaging them in Primary Health Care and of *training* them accordingly." (WHO-UNICEF, 1978, p. 33; emphasis added).

It provided a tenuous thread to a third strand that attempted to use the PHC discourse to promote medical pluralism in health systems development (Payyappallimana, 2010; Shankar, 1985). Thus, there was the dominant operational policy translation of the concept of PHC to Selective PHC, a significant conceptual acceptance but marginal operational translation of Comprehensive PHC, and an even more marginal translation to a system of Comprehensive PHC with a plurality of knowledge (Priya, 2018).

The post-2000s period saw the rise of the idea of UHC which with several iterations has come to be restricted to 'ensuring medical care to all without financial catastrophe' via expansion of medical insurance coverage (WHO, 2009; Baru, 2012; Sanders et al., 2019). The question, 'why medical expenditures were becoming increasingly unaffordable despite cost-effectiveness exercises' was never asked. From Alma-Ata to UHC, physical iatrogenesis along with social and cultural iatrogenesis (Illich, 1977), remained unacknowledged. On the other side, the state and private commercial interests of the medical–industrial complex came together to shape knowledge as they wanted: to 'serve' the population as passive consumers.

However, despite this onslaught, people's own wisdom prevailed and non-dominant forms of knowledge continued to be in practise. For instance, while the national and global governance responses to COVID-19 involved primarily top-down command and control measures or market approaches with individualised risk-management advisories to 'stay home and keep your family safe', the world witnessed an unprecedented level of community action of solidarity and support too. People's responses ranged from personal preventive measures using home remedies and traditional medicine to a wide variety of community-driven efforts such as awareness campaigns, tele-consultations, and social support measures (Lowensen et al., 2020; Priya et al., 2022).

While this persistence is either ignored or seen as an aberration, we argue that it is more productive to view this persistence as a means of filling the gaps of dominant healthcare, and as resistance to its multi-faceted iatrogenesis.

Traditional health knowledge systems: a case in point. Historically, all societies and communities have developed modes of health care (promotive, preventive, curative, palliative) followed by the state emerging as a major provider to the masses in the last two centuries. While this has increased access to conventional ('modern') medicine tremendously, it has induced delegitimisation and displacement of the prevailing popular knowledge and practices in parallel.

The value of traditional knowledge, both folk and codified, lies in them being closely related to ecological worldviews (Payyappallimana, 2010). Required material resources are available in natural surroundings and have been traditionally accessible to all including the poorest sections whose livelihoods and life patterns bring them in close contact with nature. These systems are close to popular cultures that people identify with and are also considered to be safer and sustainable (WHO, 2002). They have also made significant contributions to the development of pharmacology and pharmacopoeia of 'modern' biomedicine (Rubira, 2011). Their 'whole systems approach' rather than the analytical reductionist approach of conventional biomedicine provides an epistemic holism that 'systems biology' and its medical applications are just beginning to explore (Payyappallimana et al., 2020).

This epistemic diversity has been asserted since the colonial era of the 19th and 20th centuries in India and elsewhere (Hunt, 1999; Sivaramakrishnan, 2006; Sharma, 2013; Bala, 2014). The contingencies involved in making healthcare accessible to large masses of Asian countries such as China, and during the course of the HIV epidemic in Africa brought in official support in the second half of the 20th century leading to WHO's policies on traditional medicine (WHO, 2002, 2014). The ongoing relevance of these knowledge systems is reflected in the resurgence of 'bioprospecting' by pharmaceutical companies (Mgbeoji, 2006). Yet, neither in PHC 1978 nor in UHC 2018 does global health discourse give this epistemic pluralism any space and therefore, the two discourses of universally accessible health care and resurgence of traditional health knowledge systems run in parallel. The Astana declaration and its supportive documents demonstrate some move towards recognising the value of traditional knowledge, but there is little by way of operationalising its use (Priya, 2022). The challenges faced by various national health systems during the COVID-19 pandemic also displayed similar disjunctions, making a vast repository of knowledge base, human and institutional resources redundant in the official response (Sujatha, 2021).

COVID-19 management as anti-thesis of the PHC approach. The management strategies of the COVID-19 pandemic illustrated the antithesis of the PHC approach in the choice of knowledge adopted for policy and its translation into techno-managerial measures designed for the prevention of cases as well as care for those manifesting symptoms. These manifestations in the backdrop of the Astana Declaration of 2018 (which espouses UHC-with-PHC) demonstrate the consequences of Selective PHC and of the subsequent global health discourse that informed health systems development, denying the validity of multiple epistemologies, people's knowledge and practices, bottom-up and context-sensitive plural solutions.

During the initial period of the COVID-19 catastrophe, pandemic management in India and across the world was largely

dominated by a global narrative of lockdowns informed by modelling exercises conducted by global health institutions (Ferguson et al., 2020). The overall experience of pandemic management displayed an ahistorical, decontextualised and narrowly focused medicalised understanding that involved controlling the spread of the virus through lockdowns and provisioning of treatment through scale-up of ICUs and ventilators ignoring the wider social, economic and health impacts. Reliance on the development of a vaccine to contain the virus transmission and reduce serious cases and deaths prevailed, ignoring the role of natural immunity completely. A false dichotomy was often created between saving lives and saving livelihoods to legitimise the tradeoffs (Prasad et al., 2020). Questions that ought to have been asked were, "What works best, for whom, under what conditions, what are the unintended consequences and who pays the costs?" (Priya et al., 2020a). In addition to the immediate firefighting, long-term public health thinking about the pandemic and its impact was required. Instead of the command and control approach to public health witnessed in global and national responses to the pandemic, there were demands from many quarters for a comprehensive public health approach that would competently address different social needs and health requirements of different sections of people, with participatory decision making and action (IPHA, IAPSM, IEA, 2020; Loewenson et al., 2020; Priya et al., 2020a; Prasad et al., 2020; Priya and Dasgupta, 2020).

In the context of patient care of COVID-19 cases, strong PHC-led health systems, usually the first point of contact, could not only have addressed the essential healthcare needs of most of the uncomplicated cases but could also have played a significant role in arresting the spread of the pandemic through monitoring, detection and prevention of early signs of an outbreak (WHO, 2021). In fact, around 80% of the COVID-19 patients had only mild illness, about 15% required oxygen support and only 5% needed intensive care. A bottom-up PHC approach would have mobilised community-wide networks of frontline health workers and local volunteers to provide the much-needed psychosocial support and pertinent advice on home-care after the diagnosis of COVID-19 (through laboratory tests) minimising the unnecessary rush to hospitals by those testing positive but with mild symptoms (Kulldorff et al., 2020). Simultaneously, the suffering and deaths of moderate and serious cases would have been minimised by the latter's monitoring of danger signs and linking of complicated patients with advanced facilities as required. Instead, the focus was on converting tertiary care centres into designated COVID hospitals, creating extra ICU beds and over-stretching hospital capacity, overburdening the health workforce and severely jeopardising treatment of other complicated illnesses. However, the primary-level workers were intensively utilised for the administration of the vaccines against COVID-19 after they became available.

The current form of knowledge governance with global health's singular techno-managerial solutions was at play instead of a comprehensive, contextualised, people-centric public health reasoning. This hegemonic practice places simplistic epidemiological uni-causal germ theory thinking over the reality of complex multi-causal epidemiology and technological solutions on people. Therefore, the vaccine is presented as the panacea and lockdown as the only legitimate interim measure, countering any need for epidemiologically informed context-specific preventive efforts and/or provision of primary-level supportive care for those asymptomatic or mildly affected, and over-dependence on ICUs and ventilator support (Priya and George, 2022). In this hierarchical relationship, complementarity of solutions is not acceptable and the knowledge adopted for translation into action is mediated by the PoK, the unequal distribution of power among the global community of nations and the medical industrial complex; a greater legitimacy for the positivist disciplinary moorings of mathematical modelling and the uni-causal germ theory; and a denial of validity to diverse strategies and measures suited to heterogeneous economic, social and cultural contexts.

Against this backdrop, this gap analysis asserts that, if the PHC approach is to be effectively implemented, it must be reconfigured to address the PoK underlying the relationship between conventional biomedicine and other knowledge systems as well as between the communities' cultural and experiential knowledge and that of the biomedical professionals. In the next section, we adopt a PoK lens to propose a health systems design for PHC 2.0 that could reorient the translation of the PHC approach into context-appropriate policy and practice.

PHC version 2.0
The various gaps identified using a PoK lens led to the recognition of two critical issues of knowledge translation for effective operationalisation of PHC: (i) that the health care systems design needs to reflect the centrality of individual-household-community-level in a more operational and nuanced way, and (ii) that cohering theoretical and conceptual issues need to be explicitly stated to uphold the spirit of the Alma-Ata Declaration in its translation into policy and practice.
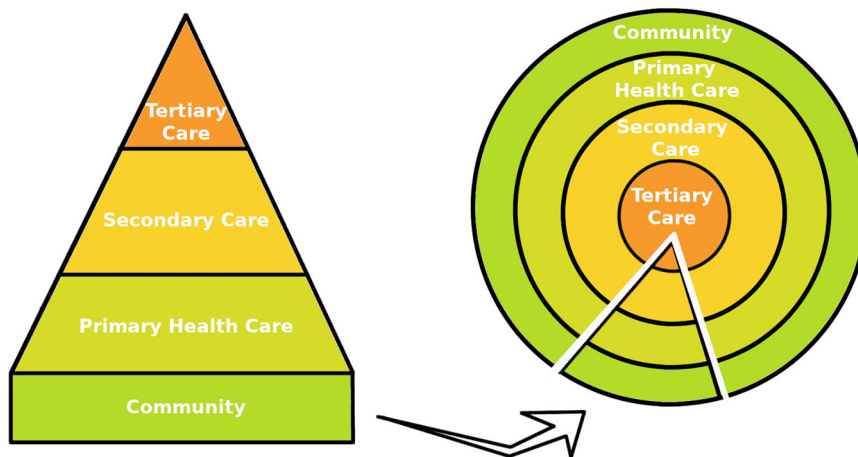

Fig. 1 Primary Health Care service design according to the Alma Ata Declaration. Source: Modified from the authors' initial work; Ghodajkar et al. (2019).
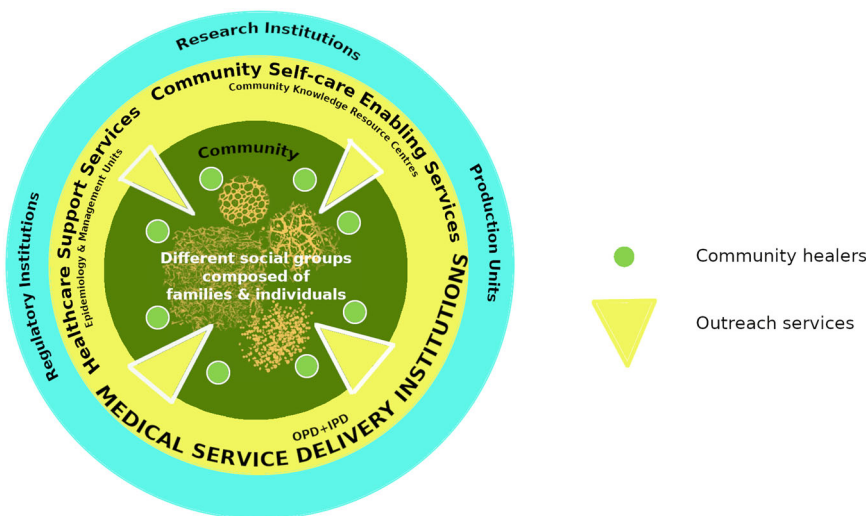
Fig. 2 The proposed PHC 2.0 design. Source: Modified from the authors' initial work; Ghodajkar et al. (2019).

Re-conceptualising the core and the periphery: from institutions to individual, family and community level. As previously indicated, the services envisaged in dominant interpretations of PHC limit them to 'peripheral' institutions and their outreach (Fig. 1). There is very little conceptualisation of how the system is going to operationally support existing systems of self-care, family-level and community-level care. In opposition to this, if the community-level is indeed supposed to be the central core and if lay people are to be empowered, their knowledge should be engaged with in a serious and democratic manner in formal knowledge generation and translation. In such a framework, the community acquires the role of the centre with the secondary and tertiary levels as the supportive periphery (Fig. 2).

Therefore, in conceptualising a systems design encompassing the centrality of the smallest and 'closest to home' unit, we propose that the community-level care should be given greater attention in detail. We propose a healthcare systems design of four tiers beginning with self-care (by the individual) as the first, family at the second, and community-level specialised providers as the third tier (including the wide range of traditional folk healers and community health workers). Folk practice and self-care that have remained outside the purview of the state and are largely non-commercialised in nature could provide valuable lessons for systems development (Priya and Shweta, 2010; Priya and Kurian, 2018). Then, the fourth tier is formed by all institutional care providers further classified by the number and degree of technologies and specialisations available (Ghodajkar et al., 2019). The boundaries of the present primary–secondary–tertiary levels have become blurred with the diffusion of technology and specialists, direct accessing of hospitals irrespective of the level of care required, franchising arrangements, and so on. These four tiers with their own individual significance require institutionalisation of mechanisms for mutual learning and knowledge translation across them. This calls for a set of district and sub-district level 'healthcare supportive service institutions' and 'community self-care enabling service institutions' that will strengthen and build organic linkages between institutional and community-driven healthcare. Interestingly, community-care and self-care practices are usually considered as 'non-scientific' when the validation process is based on a technical exercise taking the dominant biomedical knowledge as the sole point of reference. However, people's 'way of knowing' leads to new knowledge generation and standardisation of practice in an organic way and this must not be curbed or merely incorporated into biomedical

research or its categories (Sujatha, 2007). People's knowledge should be studied and understood on its own terms through inter-disciplinary and trans-disciplinary research. This calls for designing and support of facilitating systems of health research. Subsequently, this fifth tier encompassing health systems research institutions, regulatory bodies and technology production units will provide the requisite inputs based on the needs of the other tiers including knowledge translation through interactions between various ontologies and epistemologies.

In the institutional services tier (the fourth tier), the application of the PHC approach requires the adoption of epidemiological rationale and PHC principles for the development of institutions at _all_ levels, from health centres to hospitals. This involves the adoption of appropriate technology as a principle even for hospital services, developing a gate-keeping mechanism at the primary level for availing specialised institutional care, capacitating professional teams for addressing technical as well as social requirements, and giving due consideration to the individual, family and community. We propose a major consideration of the three tiers _before_ institutional services. The proposed first three tiers require enabling support from the state, but not control by the state. These tiers should be better understood, receive more research, legitimacy and assured sustainability of the natural resources required (Priya, 2011, 2012; WHO, 2014). The reversal of core and periphery is not merely to emphasize a particular 'level' of care but is a call for critical appraisal of the knowledge that underlies the present system and for re-legitimisation of other forms and sources of knowledge and knowledge-holders. Our argument is NOT that conventional biomedical knowledge is NON-beneficial (acknowledging that much of it is very useful) but the issue is of a system that legitimises only one form of knowledge at the expense of all other forms, including the traditional and social sciences.

Therefore, there is a need to move to a more democratic knowledge base for the generation of 'evidence' in health care, for provider–patient interactions, public health priority-setting, health technology assessment, as well as for systems design, monitoring and evaluation (Priya, 2013). Given the multi-dimensional experience and perceptions of health and health determinants of lay people, this will lead us to widen the boundaries of health systems to operationalise the current proposal of 'Health in All Policies'. More organically developed health systems research and policy agendas, appropriate technology and its rational use at all healthcare levels, along with the

incorporation of ethics in healthcare, will offer due consideration to people's concerns.

Therefore, a democratic health systems knowledge translation requires new decentralised institutional structures to be established to document, validate and promote local health knowledge and practices linked to health systems research and development (Priya and Shweta, 2010). Formal support should be provided, for example, through the proposed 'Community Knowledge Resource Centres', to restore medicinal plant resources, promote the use of local home remedies through schools, certify folk practitioners and upgrade their skills through peer processes. Also, it is essential to sensitise and reorient the existing health personnel to the value of these local health resources and other 'knowledges', their ontologies and epistemologies (Appelbaum et al., 2006).

Shifting the theoretical and conceptual foundations. Reversing the centre-periphery arrangement also requires a theoretical and conceptual shift, which serves several purposes for the democratisation of health systems. Today, the 'one way of knowing' is the only right way, or 'one solution fits all' are well acknowledged as legitimate and centralising forms of assertion of power and hegemony. It has resulted in an ecological crisis, increasing iatrogenesis, as well as inequities and positions of disempowerment of the marginalised sections (Gøtzsche, 2016; Grenni et al., 2017; Longh et al., 2018). These consequences became very evident during the course of the COVID-19 pandemic.

'Empowering' people through healthcare requires its episteme and content to include 'democratic pluralism' and a transition from 'universal singularity'. The diversity of perspectives in understandings of health and health care and the validity and legitimacy of the diverse worldviews must be acknowledged. This implies that various forms of traditional medicine are acknowledged as knowledge systems in their own right and brought into a framework of dialogue and 'mutual learning' rather than pejoratively examined as merely 'complementary' or for their pharmacopoeia to be drawn upon for pharmacological learnings or pharmaceutical profits (Gaitonde, 2012). Values, assumptions, criteria of quality of care, and understandings of social effectiveness would be part of the cross-learnings.

Incorporation of traditional health knowledge is one of the cases for possible epistemic pluralism which will take us closer to realising the PHC principles. Further epistemic diversity has emerged in public discourse with the women's movement, the LGBTQIA movements, indigenous people and other subaltern groups facing historical social discrimination that asserted rights of lay understandings of the body over expert knowledge and control. Community-led monitoring and health perceptions research have brought to light diverse understandings of 'health' and 'wellbeing' as well as related criteria of 'safety' and 'quality' (Banerji, 1993; Priya, 2012; Ghodajkar, 2013; Rangamani et al., 2015). Bottom-up approaches to planning of health services and programmes have adequate proof of concept (Vian, 2007; Priya and Ghodajkar, 2018). All this must be given due consideration in the design, operationalisation and evaluation of health systems. Moreover, epistemic pluralism of subaltern worldviews and otherwise will take us closer to realising the principle of community empowerment, and give importance to development models that are ecologically sensitive and strengthen non-exploitative social relationships (Priya and Kurian, 2018).

Conclusion
The Primary Health Care (PHC) approach to health systems was conspicuous by its absence in the COVID-19 pandemic response. Despite the averments of the Astana Declaration for the resurrection of PHC along with UHC in 2018, COVID-19 management in 2020 demonstrated the path dependency created by a centralised, top-down knowledge base devoid of a pluralist, community-centred vision of health systems design (Priya et al., 2020a, 2020b; Priya and George, 2022).

There is no denial that the medical–industrial complex has played a pivotal role in the advancements in health technologies and their extensive access. However, it has been the determinant of iatrogenesis and over-medicalisation adding to the unaffordability of medical care and exclusion of other forms of healthcare. Therefore, not only is 'regulation' required, but biomedicine's hegemony over the knowledge system for translation into health care ought to be challenged. Although it may be argued that a paradigmatic shift (Kuhn, 1970) is emerging from within the system, change in discourse requires social and political assertion by counter-hegemonic visions and subaltern practices also (Foucault, 1980). We call for an acknowledgement of the PoK to enable more democratic management of multiple epistemologies in knowledge production and translation into health systems designs.

The re-iteration of PHC as relevant to attaining UHC and the Sustainable Development Goals at the Astana Conference (WHO, 2018) or for powering health systems fit for the post-COVID world (World Bank, 2021) does create an opportunity. Potentially, it can redirect the understanding of PHC as *an approach* for the health services system as a whole and not merely for the most basic *level* of healthcare. However, even the Astana declaration exemplifies the PoK by dichotomising 'scientific' and 'traditional' knowledge (People's Health Movement, 2018; WHO-UNICEF, 2018), omitting any questioning of the epistemic supremacy of biomedicine or offering operational strategies for epistemic pluralism. All the organisational structures and operational measures illustrating a more comprehensive and democratic PHC approach (suggested above) have been implemented in some measures across countries and/or by civil society/communities. Together, they provide a different vision of healthcare and require a more democratic PoK. Therefore, there is a need for a PHC Version 2.0 which brings the PoK into its theoretical and conceptual foundations.

There are no easy solutions to such complex issues as healthcare systems. Holistic systems thinking and experiences from diverse contexts are necessary. Most importantly, the challenge for knowledge translation lies in giving up the puritanical insularity of 'universal, objective science' as knowledge, creating institutional structures that enable democratic pluralism, and adopting bottom-up and dialogic processes for effective, contextually sensitive policy-making towards Health for All, including for pandemic control.

Notes
1 Two consecutive workshops were held in 2017 and 2018 on Politics of Health attended by people from diverse disciplinary backgrounds, such as public health academics, research scholars of economics and political science, members from non-governmental organisations and community-based organisations (working on health, gender, human rights, nutrition, ecological issues), members of multilateral organisations (such as the World Bank) and development related think-tanks. They reviewed and deliberated on several health charters including the Alma-Ata Declaration (Priya et al., 2019). The need to examine the politics of health at the discursive level emerged prominently during the workshops. After these workshops, the framing of Politics of Knowledge (PoK) and its application, specifically within the domain of health, was developed further by the present authors over the next two years. Next, the PoK lens was employed to undertake a preliminary analysis of the Alma-Ata document and

presented at the mid-annual meet of Medico Friends Circle (a national network in India of medicos and civil society actors, public health practitioners, analysts and activists, civil society organisations and individuals interested in public health issues) in 2018. It was hosted by the Jawaharlal Nehru University and attended by public health experts and activists from across the country. Thereafter a workshop on PoK was held at the World Congress on Bioethics in the same year. Inputs from these workshops and further analysis informed the publication of a series of three articles on PoK and Alma-Ata by the present authors (Priya et al., 2019; Gaitonde et al., 2019; Ghodajkar et al., 2019). The papers were then presented at the annual conference of Medico Friends Circle, India in 2019. The PoK lens thus developed also informed the current research on COVID-19 by many of the contributing authors (Prasad et al., 2020; Priya et al., 2020a, 2020b; Priya and Das, 2020; Sarkar et al., 2020; Loewenson et al., 2021).

2 GOBI-FFF is an acronym that originated in the early 1980s for a selective package of PHC services from WHO and UNICEF. This includes growth monitoring, oral rehydration, breast-feeding, immunisation, female education, family spacing, and food supplementation (GOBI-FFF) (Marcos, 2004).

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