

Evidence-Based Health Policies and Its Discontents – Comparative Global and Indian Perspectives with a Focus on the COVID-19 Pandemic

INTRODUCTION

Public health in the 21st century is evolving into a social movement toward the empowerment and maximization of population health through the equitable allocation of scarce resources and a proportionate distribution of responsibilities toward mitigating risk. Public health in its most aspirational context transcends the traditional goals of preventing disease and prolonging life and strives to multiply the economic and social potential of the population and maximize their health-related quality of life to the utmost possible extent.^[1] The landmark Adelaide declaration in 1988 was a culmination of these explicit concerns for achieving health and equity through the reduction of socioeconomic disparities and infusing considerations of health in all policies.^[2] In the contemporary zeitgeist, effective public health policies are considered the most efficacious means of improving the health status of communities and alleviating the negative consequences of pervasive health inequalities derived from the unequal distributions and exposure to adverse social determinants of health.^[3] However, policy making is contentious since the proponents may clash on conceptual, ideological, and political worldviews particularly in the context of healthcare when resources are limited and demand often outstrips availability.^[4]

Ever since the 90s, the idea that public policies should be representative of the best available scientifically proven evidence in a transparent and balanced manner gained traction. Subsequently, evidence-based health policies (EBHP) were conceptualized on the principles of evidence-based medicine with sensitivity for community preferences in the quest for achieving rational, efficient, effective, just, equitable, and sustainable health policies.^[5] The phenomenon of EBHP has acquired near universality in recent years although the extent and standards of the available evidence are frequently disputed by scientists, administrators, and politicians. Scientists have tools for critical appraisal of the evidence but may fail to build academic consensus toward advancing a uniform policy. Administrators may concur with the value of the available evidence but are frequently confronted with the feasibility of implementing the intervention, especially in resource-constrained settings, which has accelerated the domains of operational and implementation research. Moreover, in the real world, policy makers may also need to select one of the multiple interventions having proven efficacy and potential beneficence in populations. More importantly, politicians when considering evidence as an input for policy-making can

either opt for a process that prioritizes research findings or consider scientific evidence as just one of the inputs which needs to be balanced against their ideological or realpolitik considerations.^[6] In this commentary, we assess which factors promote alignment of political choices of policy-makers with the uptake of evidence-informed interventions? What barriers and challenges have historically subverted the formulation and implementation of evidence-based policies? Finally, we also assess the pattern of the contemporary challenges in the implementation of evidence-based policies during the COVID-19 pandemic with a comparative global and Indian perspective.

TRANSLATING EVIDENCE INTO POLICY: BARRIERS AND CHALLENGES

Scientific evidence that is applicable for formulation or modification of health policy may be quantitative (epidemiological) or qualitative. Under ideal settings, the translation of evidence into effective health policy is seamless wherein scientists can directly approach and influence policymakers to reform policy for health promotion by either appealing to their personal authority or findings from research evidence. However, in the real world, several barriers and challenges impede the process necessary to achieve the formulation and implementation of evidence-based policies.

First, the temporal lag between dissemination and uptake of research has enormous historical precedence. For instance, Doll and Hill through their landmark epidemiological research generated credible evidence in associating cigarette smoking with lung cancer although in their own assessment the immediate impact rather than uptake into policy was limited to a global outpouring of research on the subject.^[7] Unfortunately, under mundane circumstances, such powerful, incontrovertible scientific evidence for propelling healthy policy is rare which renders swift recruitment of scientific evidence into policy even more problematic. Nevertheless, during the COVID-19 pandemic, policies such as early cessation of international travel, compulsory use of masks, and use of antigen testing were evidence-influenced policies that were adopted in India even prior to the recommendation by the World Health Organization. These measures signify the applicability of the precautionary principle preempting robust public health action.

Second, public health evidence may lack the generalizability and gold standard of randomized controlled trials in clinical

medicine because of the diversity of multiple social groups, and administrative, geographical and environmental diversity.^[7,8] In contrast, policymakers prefer definitive interpretations that suggest irrefutability which is devoid of uncertainty while the scientific record rarely entails such unanimity among experts, especially when it comes to opting for the most efficient and effective solutions for public health problems.^[9,10] For instance, during the COVID-19 pandemic, groups of scientists were polarized between the position encapsulated by the John Snow Memorandum prioritizing sustained mobility restrictions to inhibit the transmission of SARS-CoV-2 as opposed to the Great Barrington declaration which advocated “focussed protection” of the vulnerable while permitting the gradual progression into a state of infection-induced herd immunity.^[11] Conflicting expert opinions invariably imply that policy makers, many of whom are not trained or well-versed with the appraisal of scientific evidence, are left with the onerous task of adjudicating on health-related decisions which may potentially impact millions of lives.

Third, it is well-established that legislators as policymakers outline public health agendas and value scientific evidence in terms of their appeal to their political constituents and possibly in conformance to their worldviews, and beliefs. Historical experiences include the rejection of the findings of the landmark Whitehall II Black Report in the UK, promotion of abstinence-only educational policies among adolescents to delay sexual debut in the USA, or the policy of HIV-AIDS denialism in South Africa which potentially contributed to an estimated in excess of 300,000 deaths.^[12-14] In contrast, in India EBHPs have rarely been undermined by the ideological predisposition of the governing party probably since health policy has rarely been considered a significant electoral issue. Nevertheless, in most developing countries such as India lacking a tradition of emotional and behavioral problem (EBP), governments rarely need to necessarily invoke and marshal incontrovertible scientific proof to justify the enactment or continuity of public policies. An exception was the implementation of the COVID-19 mass vaccination campaign in India where there has been significant political opposition to concerns over safety, efficacy, acquisition, and distribution of the vaccines as the issues associated with vaccine access and shortage riled public opinion across the country.^[15]

Fourth, historically, religious opposition to EBHPs has been encountered globally in some demographics against the use of certain vaccines, drugs, and modern contraception methods. Policy makers are also vulnerable to pressure groups representing certain religious organizations if they constitute powerful electoral constituencies. During the COVID-19 pandemic, religious congregations of the faithful worldwide significantly contributed to the transmission of infection.^[16] Therefore, it has been suggested that “public policies reflect the values of those with the greatest influence, and are imbued with how those groups perceive that the world is, or ought to be.”^[17]

Fifth, the extent of acceptance of EBP by citizens when it curtails their autonomy or overrides their privacy can conflict with the individual’s aspiration for freedom of choice. Most countries globally promoted COVID appropriate behavior such as compulsory adoption of mask, use of contact tracing applications, and compulsory social distancing in their populations to inhibit viral transmission. However, compliance with these directives in several western European countries and the USA was suboptimal or poor compared to that in India which may partly explain the higher COVID-19 burden in the former.^[18] One probable cause of this differential behavior was the Western libertarian ethos which historically resists intrusion of governments in deciding for individual preferences and restricting individual freedom until those behaviors posit the risk of harm to others exemplified by the severe opposition to compulsory helmet laws for motorcycle riders.^[19] In contrast, government-sponsored paternalism in India, wherein, citizens expect governments to actively intervene through legislation for the greater good has historically contributed to the passage of laws such as those facilitating access to abortion services or the ban on secondhand smoke in public places without much acrimony or debate. Similarly, trust in science and the government may also propel greater adherence to measures which promote the collective over the individual or involve restriction of privacy. The popularity of the Aarogya Setu, the indigenous COVID-19 contact tracing app in India which became the largest downloaded app in the world is one such instance.^[20] Similarly, COVID-19 vaccine hesitancy worldwide can correlate with the extent of public trust in scientific experts. There are growing global concerns on the reduced transparency and resultant lack of citizen engagement with public scientists that fuel distrust against validated EBPs.^[21]

Sixth, public health agendas built upon highly credible scientific evidence can be scuttled by vested interests through the generation of counterevidence which attempts to exploit scientific uncertainty as exemplified by the tobacco, sugar, and cola industries.^[22,23] In case of the Covid-19 pandemic, the rampant prescribing of repurposed and alternative drugs and treatment without adequate proof of effectiveness through rigorous double-blind clinical trials is suggestive of biopharmaceutical firms benefiting from the lack of prophylactic and treatment options in the affected populations.^[24]

Finally, the economic implications of health policies can deter policy makers from adopting and implementing effective interventions despite scientific consensus. This particularly includes the usual recommendation of public health experts to substantially expand health budgets in terms of the proportion of GDP to enable the provision of universal health coverage. However, policymakers are hindered, as cutting budgets from other departments may be unrealistic and lack feasibility. During the COVID-19 pandemic, several developing economies were unable to adequately expand their health budgets to meet the existing

and COVID-19 specific health needs of their population due to spiraling economic losses from reduced economic activities. In India, during the nationwide second wave of the Covid-19 pandemic, shortage of intensive care treatment, ventilators, oxygen therapy, and hospital beds reflected a crisis which was potentiated by the failure of adequate prior public health investment. Consequently, limited resources can inhibit the implementation of evidence-based interventions and their incorporation into public health policy.

THE SEARCH FOR BALANCE: EVIDENCE INFLUENCED POLITICS TO SHAPE RATIONAL PUBLIC POLICIES

It is said that “politics is the basic science of public health” as opposed to epidemiology.^[25] Pure unadulterated science constituting the foundation of public health policies is largely a utopian construct which rejects the multiple factors that drive decision-making by politicians.^[21] Consequently, evidence-influenced politics (EIP) is considered a more pragmatic approach for infusing the rationality of science into policies. In India, the vulnerability of the population to COVID-19 was reduced through such EIPs in the past decade which substantially increased health insurance coverage among the poor, increased the pool of postgraduate medical doctors, and enabled direct bank transfer of money for financial support to beneficiaries during periods of prolonged lockdown. In addition, the need for the development of a public health management cadre to enable public health experts to stay at the vanguard of COVID-19 management at the national, state, and district level, facilitating intersectoral coordination and enactment of EBHPs is thereby urgently warranted. Public health advocacy can also fast-track evidence-based health interventions such as the enabling of telemedicine to maintain patient continuity of care during the COVID-19 pandemic.^[26]

In conclusion, the development and implementation of EBHPs for improving population health need careful navigation across obstacles from conflicting political, social, and vested group interests. The elevation of a culture that values scientific evidence as an integral, nonnegotiable, and preferably definitive element of public health policy is necessary to insulate EBPs and EBHPs against nonscientific considerations that undermine public health.

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