



The Impact of Health Policies on the Integration of Public Health and Family Medicine in Healthcare Administration.



Fahad Attih Ali Alzhrani¹, Khalid Saadi Alharbi¹, Mutlaq Ghazai Awad Almutairi¹,
Fahad Saud Marzoq Alotaibi², Ameen Ridha Ali Al Ghareeb¹, Khalid Fahad Almutairi³,
Abdullah Fahad Almuraysil¹, Abdul Qader Attih Ali Al-Zhrani⁴, Hussain Ahmad Alsheef², Majdah Fahd
Alqahtani⁵, Hend Ahmed Ghulam Mujtaba Murtadha⁶, Asma Mahmoud M. Ali⁶, Wafaa Fahad Bedeer
Almutairi⁶, Monzir Abdulrahim Alfattani⁷

¹ Public Health Department, Ministry of Health, Saudi Arabia

² Dammam Health Network, Ministry of Health, Saudi Arabia

³ Alqassim Cluster, Public Health Department, Ministry of Health, Saudi Arabia

⁴ Dammam Medical Complex in the Eastern Province, Ministry of Health, Saudi Arabia

⁵ EHC, Family Medicine, Dammam, Ministry of Health, Saudi Arabia

⁶ Maternity and Children Hospital - King Salman Bin Abdulaziz Medical City, Medina, Saudi Arabia

⁷ Ministry of Health, Saudi Arabia

Abstract

Embroidery with cords is considered a decorative technique that gives a distinctive appearance to the garment.

Background: Health policies are integral in shaping the integration of public health and family medicine, providing a framework for improving healthcare administration. Policies created by governmental bodies are essential in guiding actions and setting standards, impacting both public and private sectors. Effective health policies are grounded in principles that ensure equity, evidence-based practices, and efficient implementation, which are crucial for improving healthcare outcomes and addressing health disparities.

Aim: This article explores the impact of health policies on the integration of public health and family medicine within healthcare systems, focusing on how policy formulation can enhance the effectiveness of these services.

Methods: The article reviews various public health policies, including their guiding principles such as evidence-based decision-making, prioritizing health equity, and ensuring practical implementation. It examines real-world examples of policies like Health Impact Assessments (HIAs) and the role of multisector collaboration in public health policy development.

Results: The integration of public health and family medicine has been positively influenced by well-designed policies that emphasize evidence-based strategies and health equity. Policies such as the legalization of safe consumption spaces and the Supplemental Nutrition Assistance Program (SNAP) have demonstrated the practical application of health equity principles and their role in improving public health outcomes.

Conclusion: Health policies play a crucial role in promoting the integration of public health and family medicine. Effective policy design, with a focus on research, equity, and strategic implementation, is key to achieving sustainable health improvements. The collaborative efforts of various sectors and stakeholders contribute significantly to the successful integration of these systems.

Key Words: Health policies, public health, family medicine, healthcare integration, health equity, evidence-based policy, multisector collaboration.

1. Introduction

A standardized set of principles that guide particular actions is referred to as "policy" (3-5). While private or institutional policies are created by companies for their own internal use, public policies are usually created by governmental bodies. Public policies frequently have legal force behind them, and both public and private sector enterprises and individuals must abide by them. On the other hand, private institution-created policies are not legally binding, but they may require compliance inside the company. Public policies can be made at the federal, state, or municipal levels of government in the United States. In general, policies created by higher levels of government,

such state or federal agencies, must coincide with those implemented by lower levels, like municipal authorities. Moreover, "ceiling preemption," which prevents lesser levels of government, like state governments, from passing laws in particular areas, may be used by higher levels, like the federal government (6). Innovation in policy may be stifled by this mechanism, especially at the local level. Legislation, regulation, and litigation are the three main categories of legally binding governmental policies. Elected legislative bodies, like the US Congress, state legislatures, or local councils, draft legislation, also known as statutory law. The general principles laid down in legislative acts are further developed by regulations issued

*Corresponding author e-mail: abokhald-9@hotmail.com (Fahad Attih Ali Alzhrani)

Receive Date: 06 December 2024, Revise Date: 12 December 2024, Accept Date: 19 December 2024

DOI: 10.21608/ejchem.2024.342271.10937

©2024 National Information and Documentation Center (NIDOC)

by administrative authorities at the federal, state, or local levels. The final category, litigation, describes how court rulings have influenced public policy. Furthermore, presidents' or governors' executive orders are legally enforceable documents that circumvent the traditional legislative and regulatory procedures and allow for quick changes to policy. It is important to remember that not all public policies have legal force behind them. Usually, administrative agencies issue these guideline documents. Despite being unenforceable, such guidelines frequently offer direction and interpretive clarity, particularly in areas where statutory or regulatory rules are unclear.

Effective Public Health Policies:

In order to improve health outcomes, public health policy reforms must consider a few fundamental principles. When guided by these principles, public health policy—which includes laws, rules, programs, and initiatives meant to accomplish public health objectives—becomes more effective. These principles offer an organized method to direct successful policy formulation, and they are based on the writers' vast expertise in public health policy and the policy sciences literature. Below are some examples that show how these ideas are applied in real-world situations. Effective interventions are shaped by research, according to the first principle, which emphasizes the use of evidence to inform policy. Preventing Injuries in Maryland: A Resource for State Policy Makers, for example, is a thorough resource that provides policymakers with in-depth knowledge of Maryland's injury issues as well as practical, evidence-based remedies. The publication's sections bridge the gap between research and policy implementation by addressing the specific impact on Maryland, the larger U.S. context, and evidence-based solutions [7]. The second premise entails making health equity a top priority when formulating policies. This idea is demonstrated by Health Impact Assessments (HIAs), which address social determinants of health and current inequities while assessing the possible health implications of new policies or programs.

The Supplemental Nutrition Assistance Program (SNAP) HIA, which was carried out as part of the 2013–2014 federal Farm Bill reauthorization under the Agricultural Act of 2014, serves as an illustration of this. The evaluation drew attention to health disparities, especially those related to food security, and shaped policy debates to rectify them [8–10]. The significance of creating policies with execution in mind is emphasized by the third premise. As an illustration of the necessity of strategic planning in policy design, consider the legalization and establishment of safe consumption locations in several U.S. jurisdictions. In Canada and Europe, these locations have effectively decreased overdose deaths and public drug use; however, there is public and legal opposition to their adoption in the United States. The concept is demonstrated by Baltimore's approach to designing safe consumption areas. Potential obstacles were addressed when a local foundation worked with research specialists to create a thorough implementation plan specific to Baltimore's requirements [11]. The fourth guideline, which comes last, emphasizes the importance of employing proactive research and policy translation techniques. By converting data into practical weapon policy recommendations, the Consortium for Risk-Based weapon Policy exemplifies this idea. The consortium successfully conveys research findings to policymakers through initiatives like state forums, state-

specific policy memorandums, legislative advocacy, and technical assistance, encouraging the adoption of evidence-based firearm laws like the gun violence restraining order law [12–13]. When taken as a whole, these guidelines offer a strong foundation for developing effective public health policies that meet the requirements of society while overcoming implementation and equity obstacles.

Use Evidence to Inform Policy

Policymaking is a complex process that is impacted by a number of variables, including political priorities, stakeholder interests, and practicality. However, while developing and promoting health policy solutions, the public health community should be grounded in solid research findings. While noting that the strength and scope of evidence might vary across public health issues and may change over time, policy formulation should ideally make use of the best available research evidence [14]. Insights from comparable policy mechanisms in other fields or nations might offer helpful direction for new public health issues where there may not be as much scientific evidence to support policy solutions [15]. All policies should include procedures for continuous monitoring and evaluation, especially those that are new, poorly researched, or customized for certain subpopulations. In the end, this supports their wider acceptance across jurisdictions by guaranteeing that their efficacy may be evaluated and implementation improved as needed [16, 17]. Several evidence-based policies have proven their ability to successfully address public health issues. The Community Preventive Services Task Force, for example, produced "The Community Guide," which provides a database of research-based conclusions that can guide the creation of public health policies. Such evidence-based policies have the potential to significantly improve population health in the short and long term when they are regularly implemented [18].

Consider Health Equity

The idea that every person, regardless of their circumstances, should have the chance to attain optimal health outcomes is known as health equity [19]. Addressing the social determinants of health—the circumstances in which people are born, grow, live, work, and age—and recognizing the structural factors, including racism, that influence how these variables are distributed are necessary for incorporating equity into policies [20]. For example, residential segregation brought about by discriminatory housing regulations in the US has resulted in significant racial health disparities, such as greater rates of child poverty and unfavorable birth outcomes for Black children relative to their white counterparts [21]. Equity can be advanced by policies aimed at destroying these deeply ingrained political, social, economic, and physical determinants of health [22]. Proposals for urban development, for instance, must take into consideration the possible effects of gentrification and displacement on historically underprivileged groups, acknowledging their wider health consequences [23]. In addition to addressing any potential unforeseen outcomes, policymakers should think about how a policy would affect opportunities and access for underprivileged communities. To guarantee that progress is made toward health equity goals, equity considerations should be incorporated into all stages of the policy lifecycle, including design, implementation, assessment, and monitoring. Such progress can be measured with the aid of indicators, such as the proportion

of policies that address socioeconomic determinants of health [24].

Design Policy With Implementation in Mind

Public health policy must be designed with practical issues at the forefront in order to be implemented successfully. The effectiveness of a policy is ultimately determined by how it is implemented, even though its enactment—such as the signing of legislation—is sometimes seen as the conclusion of the policy-making process [25]. Policies that have exact laws, unambiguous compliance standards, and well-defined target groups have a higher chance of success than those that don't [26, 27]. A rule prohibiting the sale of sugar-sweetened beverages in schools, for instance, should clearly state which schools are covered by the law, describe what a sugar-sweetened beverage is, set deadlines for compliance, and spell out consequences for non-compliance. Early in the design phase, policymakers should take implementation factors into account, such as whether the policy will be overseen by new or existing agencies, whether staff training is necessary, and whether administrative adjustments are necessary [28–30]. Policies that require broad systemic changes are typically more difficult and time-consuming to adopt than those that seek small, gradual alterations to current structures. Timelines and resource allocation should be determined by policymakers. For example, policies that create completely new programs will take longer to implement than those that make minor changes to eligibility requirements in programs that already exist [27, 29].

Use Proactive Research-Policy Translation Strategies

Proactive tactics that support the adoption and execution of policies supported by research are necessary to close the gap between research and policy [16, 31]. Policymakers and researchers have different motivations and skill sets, and they work in different professional environments. While policymakers prioritize coalition building, balance a wide range of issues, and negotiate the complexities of political negotiation, researchers tend to concentrate in creating peer-reviewed evidence within certain fields of study [32–34]. Collaboration is made more difficult by the different timeframes of research and policymaking, as the former proceeds methodically while the latter might proceed quickly, especially during constrained legislative windows [35]. These distinctions must be considered by research-policy translation models in order to improve evidence-based public health policymaking. These models ought to provide scholars with knowledge of political environments, policymaking procedures, and methods for interacting with legislators [16, 36–38]. However, training alone is not enough to advance evidence-informed policy; formal partnerships and ongoing coalition building between research and policy players are also necessary. National coalitions devoted to evidence-based policy [41] and partnerships between academic institutions and public health departments [39, 40] are two examples. One example of such a strategy is the Consortium for Risk-Based Firearm Policy. Since its founding in 2013, this collaboration between researchers and an advocacy organization has produced evidence-based firearm laws, such as the law pertaining to gun violence restraining orders. Eight states have enacted the law as a result of the consortium's many initiatives, including holding forums with state lawmakers and advocates [42–44]. By encouraging stakeholder engagement, coordinating advocacy efforts, and raising awareness of evidence-based

solutions, these cooperative models reduce obstacles to policy implementation. Additionally, they support the generation of evidence that is relevant to policy and aid in identifying gaps in public health research, increasing the connection between research and policymaking.

Implications for Public Health

Applying fundamental ideas to the creation and execution of evidence-based public health policy involves a number of parties. In order to create strong cross-sector partnerships, public health departments—which are in charge of many local and state-level public health initiatives—must take a cooperative stance by involving stakeholders from other government sectors, like transportation, education, and urban planning. Population health and well-being are greatly impacted by decisions made in non-health-related sectors [45]. Therefore, decision-makers and stakeholders from various sectors must be involved in order to advance public health through policy reforms. Multisector approaches are becoming more and more common in American communities, frequently led by state and municipal health authorities [46]. When assessing the possible health implications of proposed policies, projects, or programs that come from outside the health sector, tools like Health Impact Assessments (HIAs) have become useful. These evaluations offer practical suggestions to reduce hazards and improve health results [47]. Furthermore, addressing underlying disparities and empowering health departments to take a more thorough approach to health equality can be achieved by incorporating a variety of sectors in choices that impact the socioeconomic determinants of health [8].

For academic practitioners, producing research that is pertinent to public health policy is simply one aspect of advancing it; another is successfully translating and disseminating findings to practitioners, advocates, and legislators. Keeping lines of communication open between scholars and public health professionals facilitates the sharing of useful information that can guide advocacy campaigns and policy discussions. This dialogue guarantees that scholarly investigations consider the pragmatic requirements of stakeholders and policymakers. However, because these translational initiatives are not widely acknowledged by conventional academic promotion criteria, some faculty members are reluctant to participate. More academic involvement in policy advocacy may be promoted by institutional changes that recognize and reward translational work and policy engagement as scholarly contributions [48]. The crucial duty of preparing the upcoming generation of public health leaders to spearhead successful policy change falls on academics. Although it is acknowledged that one of the fundamental roles of public health is policy formulation [49], practitioners often indicate that they require more training in this area [50]. Competencies in policy sciences, such as policy analysis, communication, implementation, evaluation, and research translation, as well as an awareness of the political aspects of policymaking, are essential for future public health leaders. Additionally, incorporating evidence translation and health equality training into educational programs will guarantee that future leaders are suitably equipped to spearhead significant changes in public health policy. In conclusion, policy change is a potent tool for addressing both current and new public health issues in the US. The four aforementioned principles offer a fundamental structure for

maximizing the efficiency of policy initiatives in attaining significant and long-lasting advancements in public health.

The Impact of Health Policies on the Integration of Public Health

Health policies play a pivotal role in integrating public health systems with broader healthcare infrastructure. Integration ensures streamlined service delivery, efficient resource use, and enhanced outcomes. This process, however, demands policies that balance healthcare goals with public health objectives while addressing systemic and operational challenges.

Importance of Policy Integration

Effective health policy integration merges objectives from public health and healthcare to create coherent, unified strategies. This integration involves harmonizing policy instruments such as funding mechanisms, regulatory frameworks, and technological infrastructure. For instance, during the COVID-19 pandemic, integrated policies were essential to synchronize public health measures like contact tracing and vaccination with healthcare service delivery. However, achieving integration requires overcoming barriers such as misaligned goals, inadequate funding, and fragmented governance systems [51, 52].

Core Strategies for Integration

Integrated policies typically incorporate shared governance models, robust health information systems, and collaborative leadership. Examples include:

- **Governance and Leadership:** Joint leadership structures with clear mandates enhance accountability and coordination. Shared governance also allows for a balanced allocation of resources between healthcare providers and public health agencies.
- **Technological Infrastructure:** Modernized health IT systems enable real-time data sharing and analysis, supporting initiatives like disease surveillance and emergency response.
- **Community Engagement:** Inclusive policy development processes ensure that community needs are reflected in public health strategies, enhancing acceptance and effectiveness [51].

Case Studies and Lessons Learned

In the U.S., integration efforts during the COVID-19 pandemic highlighted the importance of cohesive policy frameworks. Measures such as federal mandates for health data interoperability and emergency response coordination demonstrated the potential benefits of integrated policies. However, these efforts also exposed challenges, including the need for sustained investment in public health infrastructure and better training for interdisciplinary teams [52].

Challenges and Recommendations

Achieving effective integration is hampered by:

- **Fragmentation:** Disconnected systems hinder collaborative initiatives and lead to resource inefficiencies.
- **Funding Gaps:** Inconsistent and insufficient funding undermines the sustainability of integrated programs.
- **Cultural Differences:** Differing priorities between public health and healthcare stakeholders can impede cooperation.

To address these issues, policymakers must adopt a holistic approach that includes:

- Establishing sustainable financing mechanisms.
- Promoting interdisciplinary education and training.
- Strengthening legislative frameworks to support integration across sectors [51, 52].

The integration of public health into broader health systems is a complex but essential endeavor. Health policies that prioritize shared goals, robust governance, and technological innovation can drive this process. Learning from past experiences, such as responses to global health crises, can guide the development of integrated systems that improve population health outcomes and resource efficiency.

The Role of Family Medicine in Healthcare Systems:

Family medicine forms the backbone of primary healthcare by delivering comprehensive and continuous care to individuals and families. Its integration into healthcare systems ensures a holistic approach that considers biological, psychological, and social factors affecting health. Family medicine's patient-centered focus fosters strong relationships between physicians and patients, which enhances care quality and patient satisfaction. Integration allows family medicine to serve as the first point of contact for patients, bridging gaps between primary care and specialized services. This role is critical in addressing public health challenges, including the prevention and management of chronic diseases, which account for a significant burden on healthcare systems globally [53]. Moreover, the principles of family medicine align with health systems aiming for equity, quality, and efficiency, making it a vital component of comprehensive health strategies.

Health Policies Promoting Integration:

Health policies play a pivotal role in embedding family medicine into healthcare frameworks. Universal Health Coverage (UHC) policies, such as those underpinned by the Alma-Ata and Astana Declarations, prioritize family medicine as a cornerstone of equitable care delivery. These global frameworks emphasize the importance of accessible primary care for achieving "health for all" [54]. In addition, workforce development policies have addressed shortages in family physicians through targeted initiatives. For instance, the U.S. Teaching Health Center Graduate Medical Education Program incentivizes family medicine residencies, particularly in rural and underserved areas, thereby enhancing healthcare access. Payment reforms, such as value-based care models introduced under the Affordable Care Act, further reinforce family medicine integration by aligning reimbursement with care quality and outcomes. These policies collectively foster continuity of care, improve patient outcomes, and support broader public health objectives [55].

Benefits of Family Medicine Integration:

Integrating family medicine into healthcare systems offers significant benefits, including improved health outcomes and strengthened coordination with public health initiatives. Continuity of care delivered by family physicians reduces hospitalizations, enhances chronic disease management, and lowers healthcare costs. The patient-physician relationship developed in family medicine settings allows for the early detection and management of health issues, improving population health outcomes [53]. Additionally, family medicine is crucial for

public health programs, such as vaccination drives and health education, which rely on trusted healthcare providers to maximize reach and impact. Integrated family medicine also promotes health equity by prioritizing access for marginalized populations. For example, Canada's publicly funded healthcare system ensures that family medicine is universally accessible, thereby addressing health disparities and enhancing social justice in healthcare.

Challenges in Policy Implementation:

Despite its benefits, integrating family medicine into health systems faces several challenges. Care fragmentation remains a significant issue, with insufficient coordination between primary care and specialized services often leading to inefficiencies and gaps in care delivery. Policies must prioritize mechanisms to bridge these disconnects through better communication and interdisciplinary collaboration. Resource limitations, particularly in low- and middle-income countries, further hinder the effective integration of family medicine. These constraints manifest as shortages of trained professionals, inadequate infrastructure, and limited financial investments, highlighting the need for robust policy frameworks [54]. Moreover, resistance to change among stakeholders accustomed to traditional models of care can slow progress. Educational campaigns and stakeholder engagement are essential to align perceptions and encourage the adoption of integrated family medicine models.

Global Case Studies on Policy Impact:

Successful case studies provide valuable insights into the impact of health policies on family medicine integration. Brazil's Family Health Strategy is a notable example, where interdisciplinary teams comprising family physicians, nurses, and community health workers deliver comprehensive care at the community level. This model has significantly improved health indicators, such as infant mortality rates and vaccination coverage, by addressing social determinants of health alongside clinical needs [55]. Similarly, the United Kingdom's National Health Service integrates family medicine through its General Practitioner system, ensuring continuity and accessibility. By mandating GP registration for all citizens, the NHS guarantees that family medicine remains the foundation of primary care, enhancing coordination across healthcare levels.[56-58]

Recommendations for Policy Enhancement:

To maximize the benefits of family medicine integration, health policies should focus on workforce development, interdisciplinary collaboration, technological advancements, and equitable resource allocation. Expanding family medicine residency programs, particularly in underserved areas, is essential to address workforce shortages. Policies should also incentivize collaboration between family physicians, specialists, and public health professionals to ensure seamless care transitions. The adoption of digital health technologies, such as electronic health records (EHRs) and telemedicine, can further enhance care coordination and accessibility. Sustainable financing mechanisms, including value-based reimbursement models, are crucial for ensuring the long-term viability of integrated family medicine. Finally, targeted policies must address health equity, ensuring that vulnerable populations have access to high-quality primary care services. Health policies play a transformative role in integrating family medicine into healthcare systems, shaping its capacity to deliver comprehensive and equitable

care. By prioritizing family medicine, policymakers can address key public health challenges, enhance resource efficiency, and improve population health outcomes. Successful models, such as Brazil's Family Health Strategy and the UK's NHS, highlight the potential of integrated family medicine in fostering continuity, coordination, and equity. However, overcoming barriers such as resource constraints and resistance to change will require sustained efforts, including investments in workforce development, technological integration, and stakeholder engagement. By building on these strategies, health systems can fully harness the potential of family medicine to meet current and future health needs.[56-61]

Conclusion:

Health policies are vital to the successful integration of public health and family medicine within healthcare systems. This integration is crucial for achieving a cohesive and efficient healthcare delivery system, which is essential for improving overall health outcomes. The design of health policies must incorporate key principles, such as the use of evidence to inform decisions, prioritizing health equity, and considering practical aspects of implementation. When these principles are properly applied, health policies can foster greater collaboration between various sectors, enhance the effectiveness of public health programs, and lead to substantial improvements in population health. One of the core principles of health policy is the use of evidence-based practices. By grounding policy decisions in robust research, policymakers can ensure that interventions are effective and tailored to the needs of the population. The integration of public health and family medicine is greatly enhanced when policies reflect the best available evidence, such as those seen in Health Impact Assessments (HIAs), which evaluate the health implications of policies from various sectors like housing and transportation. Equity is another fundamental aspect of health policy that significantly impacts the integration of public health and family medicine. Policies that address social determinants of health, such as access to healthcare, socioeconomic disparities, and environmental factors, help to level the playing field for underserved populations. Health policies that prioritize equity ensure that all individuals, regardless of their background or circumstances, have the opportunity to achieve optimal health outcomes. Furthermore, the practical design and implementation of policies are critical. Policies must not only be theoretical but must also be actionable and capable of being executed efficiently. This requires careful planning, resource allocation, and continuous monitoring to assess their effectiveness. Policymakers must also consider the realities of healthcare delivery systems, ensuring that policies are adaptable and scalable to meet the needs of diverse communities. In conclusion, the integration of public health and family medicine within healthcare systems is deeply influenced by the policies that govern them. Effective policies are those that are based on solid evidence, prioritize health equity, and are designed with practical implementation in mind. By adhering to these principles, health policies can drive meaningful change in healthcare systems, leading to improved public health outcomes and greater integration of family medicine and public health services. The future of healthcare depends on the continued development of policies that support these principles and foster collaboration across sectors to address the complex health challenges faced by modern societies.

References:

- Centers for Disease Control and Prevention. Ten great public health achievements—United States, 1900–1999. *MMWR Morb Mortal Wkly Rep.* 1999;48(12):241–243.
- Kochanek KD, Murphy SL, Xu J, Aries E. Mortality in the United States, 2016. *NCHS Data Brief.* 2017;293:1–8. <https://www.cdc.gov/nchs/data/databriefs/db293.pdf>. Accessed 2023.
- Stone DA, Norton W. *Policy Paradox: The Art of Political Decision Making*. Revised ed New York: WW Norton & Company; 2001.
- Kingdon JW. *Agendas, Alternatives, and Public Policies*. 2nd ed New York: Longman; 2003.
- Vernick JS. Injury prevention policy forum. *Inj Prev.* 2006;12(6):382–384.
- Rutkow L, Vernick JS, Hodge JG, Jr, Teret SP. Preemption and the obesity epidemic: state and local menu labeling laws and the Nutrition Labeling and Education Act. *J Law Med Ethics.* 2008;36(4):772–789.
- Johns Hopkins Center for Injury Research and Policy. Preventing injuries in Maryland: a resource for state policy makers. 2012. https://www.jhsph.edu/research/centers-and-institutes/johns-hopkins-center-for-injury-research-and-policy/docs/publications-resources/JHCIRP_POSTbook.pdf. Accessed 2023.
- Bourcier E, Gould S, Givens M, Heller J, Yuen T. How to advance equity through Health Impact Assessments. http://www.humanimpact.org/wp-content/uploads/SOPHIA_EquityMetricsV2_2016.11.pdf. 2016. Accessed 2023.
- Agricultural Act of 2014. Public Law No 113-79, 113th Congress of the United States 2014. <https://www.gpo.gov/fdsys/pkg/PLAW-113publ79/pdf/PLAW-113publ79.pdf>. Accessed 2023.
- Pew Charitable Trusts. Health Impact Assessment of the proposed changes to the Supplemental Nutrition Assistance Program. 2014. <http://www.pewtrusts.org/~media/assets/2014/11/hiahealthimpactsnapwhitepaper.pdf>. Accessed 2023.
- Sherman S, Hunter K, Rouhani S. Safe drug consumption spaces: a strategy for Baltimore City. *Abell Rep.* 2017;29(7):1–16. <https://www.abell.org/sites/default/files/files/Safe%20Drug%20Consumption%20Spaces%20final.pdf>. Accessed 2023.
- Consortium for Risk-Based Firearm Policy. Guns, public health, and mental illness: an evidence-based approach for state policy. 2013. <https://www.jhsph.edu/research/centers-and-institutes/johns-hopkins-center-for-gun-policy-and-research/publications/GPHMI-State.pdf>. Accessed 2023.
- Consortium for Risk-Based Firearm Policy. Guns, public health, and mental illness: an evidence-based approach for federal policy. 2013. <https://www.jhsph.edu/research/centers-and-institutes/johns-hopkins-center-for-gun-policy-and-research/publications/GPHMI-Federal.pdf>. Accessed 2023.
- Anderson LM, Brownson RC, Fullilove MT, et al. Evidence-based public health policy and practice: promises and limits. *Am J Prev Med.* 2005;28(5 suppl):226–230.
- Sidney MS. Policy formulation: design and tools In: Fischer F, Miller GJ, Sidney MS, eds. *Handbook of Public Policy Analysis: Theory, Politics, and Methods*. Boca Raton, FL: CRC Press; 2007:79–88.
- Brownson RC, Chiqui JF, Stamatakis KA. Understanding evidence-based public health policy. *Am J Public Health.* 2009;99(9):1576–1583.
- Glasgow RE, Green LW, Taylor MV, Stange KC. An evidence integration triangle for aligning science with policy and practice. *Am J Prev Med.* 2012;42(6):646–654.
- Community Preventive Services Task Force. *The Community Guide*. <https://www.thecommunityguide.org>.
- Braveman P. What are health disparities and health equity? We need to be clear. *Public Health Rep.* 2014;129(suppl 2):5–8.
- American Public Health Association. Health equity. 2018. <https://www.apha.org/topics-and-issues/health-equity>.
- Mehra R, Boyd LM, Ickovics JR. Racial residential segregation and adverse birth outcomes: a systematic review and meta-analysis. *Soc Sci Med.* 2017;191:237–250.
- Dubowitz T, Orleans T, Nelson C, May LW, Sloan JC, Chandra A. Creating healthier, more equitable communities by improving governance and policy. *Health Aff (Millwood).* 2016;35(11):1970–1975.
- McAndrews C, Pollack KM, Berrigan D, Dannenberg AL, Christopher EJ. Understanding and improving arterial roads to support public health and transportation goals. *Am J Public Health.* 2017;107(8):1278–1282.
- Heller J, Givens ML, Yuen TK, et al. Advancing efforts to achieve health equity: equity metrics for health impact assessment practice. *Int J Environ Res Public Health.* 2014;11(11):11054–11064.
- Huie PL, Hill MJ. “And the rest is implementation.” Comparing approaches to what happens in policy processes beyond *Great Expectations*. *Public Policy Admin.* 2016;31(2):103–121.
- Sabatier P, Mazmanian D. The implementation of public policy: a framework of analysis. *Policy Stud J.* 1980;8(4):538–560.
- Van Meter DS, Van Horn CE. The policy implementation process: a conceptual framework. *Admin Soc.* 1975;6(4):445–488.
- Raghavan R, Bright CL, Shadoin AL. Toward a policy ecology of implementation of evidence-based practices in public mental health settings. *Implement Sci.* 2008;3:26.
- Matland RE. Synthesizing the implementation literature: the ambiguity-conflict model of policy implementation. *J Public Admin Res Theory.* 1995;5(2):145–174.
- Püzl H, Treib O. Implementing public policy In: Fischer F, Miller GJ, Sidney MS, eds. *Handbook of Public Policy Analysis: Theory, Politics, and Methods*. Boca Raton, FL: CRC Press; 2007:89–108.
- Goering P, Butterill D, Jacobson N, Sturtevant D. Linkage and exchange at the organizational level: a

- model of collaboration between research and policy. *J Health Serv Res Policy*. 2003;8(suppl 2):14–19.
32. Brownson RC, Royer C, Ewing R, McBride TD. Researchers and policymakers: travelers in parallel universes. *Am J Prev Med*. 2006;30(2):164–172.
33. Gollust SE, Seymour JW, Pany MJ, Goss A, Meisel ZF, Grande D. Mutual distrust: perspectives from researchers and policy makers on the research to policy gap in 2013 and recommendations for the future. *Inquiry*. 2017;54:46958017705465
34. Caplan N. The two-communities theory and knowledge utilization. *Am Behav Scientist*. 1979;22(3):459–470.
35. National Conference of State Legislatures. Legislative session length. Published December 2, 2010 <http://www.ncsl.org/research/about-state-legislatures/legislative-session-length.aspx>.
36. Crewe E, Young J. Bridging Research and Policy: Context, Evidence and Links. London: Overseas Development Institute; 2002.
37. Gagnon ML. Moving knowledge to action through dissemination and exchange. *J Clin Epidemiol*. 2011;64(1):25–31.
38. Brownell KD, Roberto CA. Strategic science with policy impact. *Lancet*. 2015;385(9986):2445–2446.
39. Conte C, Chang CS, Malcolm J, Russo PG. Academic health departments: from theory to practice. *J Public Health Manag Pract*. 2006;12(1):6–14.
40. Chudgar RB, Shirey LA, Szyner-Taub M, Read R, Pearson RL, Erwin PC. Local health department and academic institution linkages for community health assessment and improvement processes: a national overview and local case study. *J Public Health Manag Pract*. 2014;20(3):349–355.
41. Sabatier PA, Weible CM. The advocacy coalition framework: innovations and clarifications In: Sabatier PA, ed. *Theories of the Policy Process*. 2nd ed Boulder, CO: Westview Press; 2007:189–220.
42. Horwitz J, Grilley A, Kennedy O. Beyond the academic journal: unfreezing misconceptions about mental illness and gun violence through knowledge translation to decision makers. *Behav Sci Law*. 2015;33(2-3):356–365.
43. McGinty EE, Frattaroli S, Appelbaum PS, et al. Using research evidence to reframe the policy debate around mental illness and guns: process and recommendations. *Am J Public Health*. 2014;104(11):e22–e26.
44. Educational Fund to Stop Gun Violence. Extreme risk protection orders. Updated 2018 <http://efsgv.org/extreme-risk-protection-orders>.
45. Institute of Medicine. Applying a Health Lens to Decision Making in Non-Health Sectors: Workshop Summary. Washington, DC: National Academies Press; 2014.
46. Polsky C, Stagg K, Gakh M, Bozlak CT. The Health in All Policies (HiAP) approach and the law: preliminary lessons from California and Chicago. *J Law Med Ethics*. 2015;43(suppl 1):52–55.
47. National Research Council, Committee on Health Impact Assessment. Improving Health in the United States: The Role of Health Impact Assessment. Washington, DC: National Academies Press; 2011.
48. Pollack KM, Frattaroli S, Morhaim D. Working in the legislature: perspectives on injury prevention in the United States. *Inj Prev*. 2009;15(3):208–211.
49. Institute of Medicine. The Future of Public Health. Washington, DC: National Academies Press; 1988.
50. Sellers K, Leider JP, Harper E, et al. The Public Health Workforce Interests and Needs Survey: the first national survey of state health agency employees. *J Public Health Manag Pract*. 2015;21(suppl 6):S13–S27.
51. Frontiers (2022). Policy actions for the integration of public health and health care in the United States. Retrieved from Frontiers.
52. Oxford Academic (2021). Policy integration and the coronavirus disease crisis: lessons for policy design. Retrieved from Oxford Academic.
53. Starfield, B. (1998). *Primary Care: Balancing Health Needs, Services, and Technology*. Oxford University Press.
54. World Health Organization. (2018). Declaration of Astana. Retrieved from <https://www.who.int/>
55. Macinko, J., et al. (2011). The Family Health Strategy, a strong model of primary care in Brazil. *International Journal of Health Services*, 41(4), 593–612.
56. Zahraa Kamil Kadhim Lawi, Feryal Ameen Merza, Shiama Rabeea Banoon , Mohammed Abd Ali Jabber Al-Saady , Aswan Al-Abboodi, Mechanisms of Antioxidant Actions and their Role in many Human Diseases: A Review. *Journal of Chemical Health Risks*, Vol. 11, Page: 45 – 57, 2021,
57. Isam Jameel, Zahraa Kamil Kadhim, Shaima R. Banoon. Review about COVID-19. *Research Journal of Biotechnology*, Vol. 16 (4) April (2021), DOI:10.1016/j.onehlt.2020
58. Maryam Kohansal, Yasemin Khudiar Alghanimi, Shaimaa R Banoon, Abdolmajid Ghasemian, Hamed Afkhami, Abdolreza Daraei, Zhangling Wang, Najmeh Nekouian, Jindong Xie, Xinpei Deng, Hailin Tang. CircRNA-associated ceRNA regulatory networks as emerging mechanisms governing the development and biophysiopathology of epilepsy. *CNS Neuroscience & Therapeutics*, 2024 Apr;30(4):e14735. doi: 10.1111/cns.14735.
59. Zahraa Kamil Kadhim Lawi, Feryal Ameen Merza, Shiama Rabeea Banoon , Mohammed Abd Ali Jabber Al-Saady , Aswan Al-Abboodi, Mechanisms of Antioxidant Actions and their Role in many Human Diseases: A Review. *Journal of Chemical Health Risks*, Vol. 11, Page: 45 – 57, 2021,
60. Zahraa Isam Jameel, Zahraa Kamil Kadhim, Shaima R. Banoon. Review about COVID-19. *Research Journal of Biotechnology*, Vol. 16 (4) April (2021), DOI:10.1016/j.onehlt.2020
61. Maryam Kohansal, Yasemin Khudiar Alghanimi, Shaimaa R Banoon, Abdolmajid Ghasemian, Hamed Afkhami, Abdolreza Daraei, Zhangling Wang, Najmeh Nekouian, Jindong Xie, Xinpei Deng, Hailin Tang. CircRNA-associated ceRNA regulatory networks as emerging mechanisms governing the development and biophysiopathology of epilepsy. *CNS Neuroscience & Therapeutics*, 2024 Apr;30(4):e14735. doi: 10.1111/cns.14735.