Introduction

The concept of Health in All Policies aims to improve the health outcomes associated with policies in an attempt to mitigate health disparities and provide optimal environments for healthier living. This multidisciplinary framework seeks to improve health through effective assessment and reformation of policy for organizations of any level and stature. The importance of integrating health in policy assessment and decision making is a key concept in the growing field of Health Impact Assessment. The World Health Organization defines Health Impact Assessment (HIA) as “a combination of procedures, methods, and tools by which a policy, program, or project may be judged as to its potential effects on the health of a population, and the distribution of those effects within the population.” HIA provides a mechanism for collaboration between various sectors and disciplines bridging the gap between research, policymaking, and implementation of policies, programs, and projects affecting health outcomes. In the United States, while some HIA efforts have focused on proposed public policies, HIA has been used primarily to analyze the health effects of proposed development projects and plans related to community design and transportation.

However promising as an emerging practice in the U.S., HIA has yet to achieve broad integration and consideration within U.S. public policy. A fundamental and expanded understanding of HIA's legal basis may help facilitate the integration of health impact considerations into a broad range of public policies, actions, and institutions. This article introduces a statutory and regulatory framework for HIA under the National Environmental Policy Act of 1969 (NEPA), and provides additional examples of HIA conducted within and outside the context of NEPA. The HIA examples set the stage for the broader question of how HIA might function within existing laws, policies, and processes, such as, What are the legal bases for HIA in existing federal law, state statutes, public regulations, and legal provisions? Answers to such questions may facilitate a broader understanding and approach toward health in all policies.

National Environmental Policy Act: Historical Foundations in Health

There is emerging agreement that a primary legal basis for HIA is articulated within NEPA. NEPA epitomizes the comprehensive and meaningful aspirations of the modern environmental era without neglecting the human element. Its concepts have been replicated in some form into the environmental laws of many states and multiple countries. As demonstrated by its basic statutory framework, and its more detailed regulatory structure, NEPA is concerned with both the ideals of the natural resources conservation movement preceding it, and the pollution and public health concerns substantively embodied in the air and water pollution laws enacted during the same period.

NEPA is intended to create "a national policy which will encourage productive and enjoyable harmony
between [humankind] and [its] environment,” seeking to “stimulate the health and welfare” and “create and maintain conditions under which [humankind] and nature can exist in productive harmony.”9 The basic triggering requirement for NEPA analysis is any proposed “major federal action” that, if implemented, would “significantly affect the quality of the human environment.”10 This includes proposed projects (e.g., interstate highway expansion) as well as policy actions (e.g., national fuel economy standards).

Federal and public participation requirements along with the availability of judicial review have positioned NEPA to be a deliberative, transparent, participatory, and accountable process, designed to identify and address a wide range of potential environmental impacts and alternatives, while providing a forum for both environmental and human health considerations.

Other Legal Bases for Health Impact Assessment
It is important to note that, while environmental analysis through NEPA has expanded since its inception, the assessment and analysis of specific human health impacts remains fairly narrow and falls short of being comprehensive.11 HIA is a tool which can help to focus on human impacts, bridging public health and environmental policymaking.12 By introducing a fresh lens within existing frameworks, decision makers may be equipped with legal context to integrate HIA in important policy decisions. While there are provisions in NEPA to consider HIA in decision making, other existing laws and policies may also clarify authority mechanisms for integration of HIA.

For instance, the Clean Air Act has entry points that may empower communities and public health agencies to articulate relevant human health concerns within local and regional decision-making processes.13 State environmental justice laws and policies may create similar avenues to assess potential impacts to the human environment. As an example, the environmental justice policy in the Commonwealth of Massachusetts states that environmental justice communities deserve “enhanced public participation” and “enhanced analysis of impacts and mitigation” under the state’s NEPA equivalent.14

Health in All Policies — Lessons from HIA Practice
The HIA process is one that has been promoted in part because it provides systematic health analyses in advance of the implementation of programs, plans, and policies. Three examples of HIA in environmental decision making highlight this effort.

In response to a draft EIS by federal highway authorities that considered roadway alternatives to a traffic-heavy Interstate 5 bridge, the Portland Oregon Health Impact Assessment Workgroup conducted a separate HIA to “examin[e] the [draft EIS] for this project through a public health lens to understand the scope and magnitude of...potential health effects.”15 While recognizing that mounting demand would tax the bridge’s capacity, the assessment raised concerns about obesity as an indirect impact from increased capacity for single occupancy vehicle use.16 Remaining sections focused on health risks from the cumulative degradation of air quality, including how increases in particulate matter and air toxins from mobile sources may disparately impact environmental justice communities. Increased traffic noise levels may increase hypertension and interfere with childhood development and learning in these communities.17 Finding that the “air quality and noise sections [of] some federal standards do not protect human health adequately,” the HIA Workgroup called for an evaluation of “peer-reviewed literature to determine whether stricter standards are necessary to prevent harmful health impacts in our community rather than simply following NEPA requirements.”18 In addition to revealing a notable divergence between federal and state decision making, this example highlights the need to re-examine the extent to which public health is built into the complicated structure of environmental law and interpreted administratively and judicially.

The Beltline Health Impact Assessment provides a second example of a prospective HIA. The Beltline HIA evaluated a proposed redevelopment plan in the city of Atlanta, Georgia. Atlanta’s Beltline project consisted of a $1.7 billion public investment affecting transportation, land use, and urban design that impacted approximately 200,000 people who lived within walking distance of the Beltline.19 The proposed 25-year redevelopment project included 700 acres of park improvements, 1300 acres of new green space and parks, 33 miles of trails, 22 miles of transit service,20 encompassing a 6500 acre tax allocation district. The results of the assessment determined that the new parks would not be enough to satisfy the city’s 2030 projected population, if the city expected to remain in compliance with its 6.5 park acres per 1000 people policy. In Atlanta, new parks are often distributed by socioeconomic factors, not geography. For instance, one region of the city, southwest Atlanta, is currently and will continue to be underserved when the Beltline project is complete.21 Nevertheless, the HIA determined that the Beltline project would promote good health and recommended that it be fast-tracked to realize health benefits sooner.
A third example is the Decatur Community Transportation Plan Health Impact Assessment. This rapid HIA was conducted for the city of Decatur, Georgia to outline recommendations for its community transportation plan. The study was funded by the City of Decatur to ensure the explicit consideration of human health impacts in the development of the transportation plan. Results of the HIA demonstrated an increased need to make traffic safety a priority in order to increase physical activity. The HIA identified a lack of connectivity for all transportation modes and a need for cyclists to have safer routes. Lastly, the HIA recommended making the needs of Decatur’s most vulnerable populations an explicit consideration within the planning document. Subsequently, the City established an active living division in its government and hired a planner to facilitate the inclusion and measurement of health effects in City activities and on particular populations.

Conclusion
As the field of HIA emerges, opportunities to ensure broad integration of HIA within the practice of public health are also increasing. HIA provides a mechanism for collaboration between public health professionals, urban planners, and various other sectors and disciplines, bridging the gap between policy making and potential health outcomes. This interdisciplinary methodology is not new for public health practitioners, who recognize that it takes a comprehensive, multidisciplinary approach to address what are often complex, systemic health outcomes and inequities. Whether voluntary or mandated, the HIA process can lead to a better informed decision, by offering evidence-based recommendations that increase positive health outcomes, and limit adverse ones. Better understanding of the legal basis, value, scope, and steps in conducting an HIA, will better position public health practitioners and partners to contribute to such efforts on the state and local level.

Note
The findings and conclusions in this article are those of the authors and do not necessarily represent the official positions of the Centers for Disease Control and Prevention or the Agency for Toxic Substances and Disease Registry.

References
10. See also 40 C.F.R. § 1508.18(b).
13. See, e.g., id. §§ 7475(a)(2), 7479(3) (attainment areas); id. §§ 7503(a)(5), 7501(3) (nonattainment areas); see also id. § 7412(a)(2), (c)(3), (d)(2), (f)(2), (g)(2) (hazardous air pollutants).
15. Id., at 1.
16. Id., at 2.
17. Id., at 5-8.
18. Id., at 11.
21. See Ross, supra note 18.
23. See Ball et al., supra note 19.