Improving health across sectors: Best practices for the implementation of health in all policies approaches

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ABSTRACT

Health is influenced by a broad range of factors beyond the typical remit of public health. It is therefore increasingly recognized that multiple sectors need to be engaged to improve population health. Health in All Policies (HiAP) is an approach to systematically consider health across policies and programs. This study assessed best practices and gaps in HiAP operationalization to inform practitioners aiming to incorporate HiAP in their work. We used Delaware as a model state to examine operationalization factors in a jurisdiction planning to implement HiAP.

Methods included document review, key informant interviews, focus groups, and a questionnaire conducted in Delaware and virtually. Thematic analysis was used to analyze qualitative data to provide information on best practices and gaps in existing HiAP programs and context in Delaware. Descriptive statistics were used to examine collaboration in Delaware and to support or refute qualitative findings.

We identified two gaps that can hinder HiAP implementation: 1) HiAP practitioners do not adequately use strategic communications to increase buy-in across sectors; 2) practitioners do not fully recognize the importance of being adaptable throughout HiAP implementation, which hinders sustainability. Qualitative findings from Delaware offer insight to these gaps and opportunities to address them.

Refining the essential elements of HiAP to add: 1) strategic communications across sectors and 2) flexibility throughout HiAP implementation may point the way to more successful adoption of HiAP approaches across jurisdictions. This research demonstrated the importance of examining local perspectives on HiAP before implementation based on a jurisdiction's context.

1. Introduction

A community's ability to be healthy depends on more than healthcare. (Hood et al., 2016)Population health is influenced by a range of factors including education, transportation, employment, and the environment. (Foundation, 2017; Centers for Disease Control and Prevention, n.d)For example, active transportation is associated with a lower risk of obesity (Robert Wood Johnson Foundation, n.d)and unstable housing is linked to increased stress and depression. (Maqbool et al., 2007)The COVID-19 pandemic has amplified the connections between

population health and other sectors (Ozili, n.d; Sahu, 2019; The National Academies of Science Engineering and Medicine, 2020; Liu et al., 2020) and elevated the importance of examining multiple perspectives to understand the context and capacity to address a problem.

It is therefore essential for public health practitioners to collaborate across sectors to improve health. Health in All Policies (HiAP) is an adaptable approach for equity-focused, multi-sector collaboration that can improve the public's health (Rudolph et al., 2013; Association of State and Territorial Health Officials. THE STATE OF HEALTH IN ALL POLICIES. Jama., 2013) and provides a platform to work with diverse

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partners for positive change. HiAP is designed to address the social determinants of health through the systematic integration of health and equity into cross-sector decision-making. (Rudolph et al., 2013).

In 2013, Rudolph et al. identified five key elements[1]* of HiAP approaches: 1) promoting health, equity, and sustainability; 2) supporting inter-sectoral collaboration; 3) benefiting multiple partners; 4) engaging stakeholders; and, 5) creating structural or procedural change. (Rudolph et al., 2013)There is compelling and growing evidence that HiAP positively affects health and equity through effects on systems, policies, and programs. HiAP has led to systems changes such as more multi-sector collaboration, increased accountability of policymakers, and enhanced capacity across government agencies to integrate health into decision-making processes. (Government of South Australia and World Health Organization, 2017; World Health Organization - Pan American Health Organization. Health in All Policies: Case Studies from the Region of the Americas.;, 2014; Centers for Disease Control and Prevention. Health in All Policies. https://www.cdc.gov/policy/hiap/index.html. Published, 2016; Secretary's Advisory Committee on National Health Promotion and Disease Prevention. Healthy People, 2020; World Health Organization. Health in All Policies Framework for Country Action., 2014) Given the impact cross-sector policies and programs – such as housing and economic policies – can have on public health, (Roussos and Fawcett, 2000; Osypuk et al., 2015)HiAP can lead to long-term, positive health effects.

Adoption of HiAP by local and national governments has increased over the last two decades. (University of Maryland School of Public Health Center for Health Equity Workgroup on Health in all Policies, 2018; Association of State and Territorial Health Officials. THE STATE OF HEALTH IN ALL POLICIES. Jama., 2013; Government of South Australia and World Health Organization, 2017)When HiAP adoption does not occur, it is often due to factors such as political context, lack of prioritization by policymakers, resources, or capacity. (Shankardass et al., 2015) For under-resourced public health practitioners, translating a dynamic and nebulous approach such as HiAP into action can pose a capacity challenge. Further, HiAP implementation cannot happen through the singular action of public health, but requires changes in daily roles and policies within each sector.

This study aimed to assess best practices and gaps in HiAP operationalization to inform researchers and practitioners intending to implement HiAP (such as government officials and community leaders). Delaware was chosen as an example jurisdiction to examine how identified best practices and gaps can be addressed in a context considering HiAP implementation. Delaware's existing HiAP champions, lack of a comprehensive HiAP approach, and the state's small geographic (States of Delaware, n.d)and population size (Census Bureau and Survey, 2017) allow it to act as a small-scale model of how other jurisdictions could approach HiAP.

2. Methods

This study had two distinct, though related, aims: (1) assess best practices and gaps related to how HiAP is being operationalized broadly nationally and internationally; and (2) consider such operationalization in a specific context (Delaware) to provide practical strategies for further use. To address the first aim, methods included document review and key informant interviews. To build upon the findings from this broad review, we conducted an additional document review, key informant interviews, focus groups, and a questionnaire within Delaware. An overview of the methods is found in Table 1. The Boston University Institutional Review Board considered the study exempt (IRB # H-38147). Questionnaire, interview, and focus group participants

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[1] * Key elements refer to components of HiAP that must be in place for the approach to be considered HiAP, whereas best practices refer to factors that support a stronger approach but are not necessarily essential.

Table 1
Methods Overview.

Method	Data Source	Recruitment	Objectives
Document review	*Inclusion Criteria*: English language Grey literature Any publication date Topics: HiAP, Delaware, collaboration *Exclusion Criteria*: Not available in English	Publicly available records found via search engines (e.g. PubMed, Google) and reference lists of identified sources 14 documents reviewed	*Aim 1*: Identify best practices and gaps of existing HiAP programs *Aim 2*: Explore Delaware's context related to public health, politics, economics, and collaboration
Key Informant Interviews (Out-of-State, virtual)	*Inclusion Criteria*: Directly involved in HiAP work, internationally or nationally, for at least one year or in key leadership role Available in the study timeframe Age 18 or older *Exclusion Criteria*: Not directly involved in HiAP Worked in HiAP for less than one year or not in key leadership role Working primarily in Delaware Does not speak English	Purposive and snowball sampling	*Aim 1* Explore best practices and gaps of existing HiAP programs Add in-depth information and fill in gaps from document review
Key Informant Interviews (Delaware)	*Inclusion Criteria*: Working primarily in Delaware in: a public health-related field; a collaborative body; or the state legislature or high-level political position In position for over one year or in key leadership role Available in the study timeframe Age 18 or older *Exclusion Criteria*: Working primarily in any area other than those listed under inclusion criteria Working primarily outside of Delaware In position for less than one year or not in key leadership role Does not speak English	Purposive and snowball sampling 10 HiAP experts recruited 20 Delaware stakeholders recruited	*Aim 2* Identify detailed information about Delaware's context related to public health and collaboration Identify facilitators and barriers to HiAP adoption and implementation
Focus Groups (Delaware)	*Inclusion Criteria*: Working primarily in Delaware in any field outside of public health In position for over one year, in key leadership role, or unique contribution Available in the study timeframe	Purposive sampling followed by snowball sampling 30 participants recruited	*Aim 2* Identify multi-sector views on HiAP Explore facilitators and barriers to HiAP involvement

(continued on next page)

Table 1 (*continued*)

Method	Data Source	Recruitment	Objectives
	Age 18 or older Exclusion Criteria: Working primarily in public health field Working primarily outside of Delaware In position for less than one year or not in key leadership role or not unique contribution Involvement in key informant interviews Does not speak English		
Questionnaire	*Inclusion Criteria*: Focus group participants *Exclusion Criteria*: Not a focus group participant	Focus group participants (n = 30)	*Aim 2* Collect relevant demographics Identify current state of collaboration in Delaware

provided informed consent.

3. Data collection methods

3.1. Document review

Document review for aim one examined grey literature on HiAP practices to gain insights into real world experiences with HiAP and applied findings. Documents reviewed were from 2009 to 2018 and included case studies and white papers on multi-sector efforts and HiAP. We limited our review to the past ten years to remain as current as possible, while recognizing that HiAP is a relatively emergent topic. Documents were identified through searches on PubMed, Google, and from reference lists of identified sources. Search terms included "Health in All Policies" added to "adoption", "implementation", "international", and "United States". Seven documents, from international and national contexts, were reviewed.

A second set of documents were identified through the same databases described above and reviewed to assess the possibility of HiAP in Delaware. These documents were identified using a similar approach but limited to the state of Delaware and included reports that provide an overall understanding of Delaware government, statewide systems, and previous experience with HiAP and existing collaborations. Search terms included "Delaware" added to "politics", "economy", "collaboration", and "public health". Our process revealed seven Delaware-specific documents. Documents were reviewed until saturation (when researchers were no longer identifying relevant new or varying data from each additional data source) was reached. (Grady, 1998; Baker et al., 2018).

3.2. Key informant interviews

Two sets of key informant interviews supported the two aims. First, semi-structured key informant interviews were conducted with HiAP subject matter experts and practitioners from international and national HiAP efforts (n = 10) to provide an overview of best practices and gaps and build on findings from the document review. Interviewees were recruited using purposive (based on research identifying interviewees with extensive HiAP work who met the inclusion criteria) and snowball sampling. See Appendix A for interview guide.

We then conducted key informant interviews with Delaware stakeholders (n = 20), who provided in-depth information regarding the state's public health and collaboration context, and helped identify facilitators and barriers to HiAP implementation (including perceptions of HiAP). Interviewees were recruited using purposive (based on roles in multi-sector and public health organizations for individuals who met the inclusion criteria) and snowball sampling with representation from the state, collaborative bodies, health-related organizations, and policymakers. See Appendix B for interview guide.

All interviews were conducted by phone, Skype, or in-person by the same trained researcher. For both sets of key informants, interviews were conducted until saturation was reached. (Grady, 1998; Baker et al., 2018).

3.3. Focus groups

Focus groups concentrated on people working across sectors in Delaware and were conducted to identify multi-sector views on HiAP in Delaware (including perceptions of HiAP). Participants outside of public health were recruited from the public sector, private sector, and community-based organizations to obtain a wide range of viewpoints. Participants (n = 30) came from 12 disciplines (including agriculture, transportation, housing) and were recruited using purposive and snowball sampling. The hour-long focus groups were conducted by the same trained researcher. Eight focus groups were held – six in-person and two via Zoom – until saturation was reached. (Grady, 1998; Baker et al., 2018) Focus groups were small due to the nature of holding mainly in-person focus groups statewide and accommodating the schedules of professionals. See Appendix C for focus group guide.

3.4. Questionnaire

Twenty-six of the 30 focus group participants completed a questionnaire, the results of which were used to examine cross-sector collaboration in Delaware and to augment qualitative findings. The questionnaire included demographic questions and the Wilder Collaboration Factors Inventory, which assesses collaboration based on 22 factors. (Mattessich and Johnson, 2018)The 44-question tool took participants approximately 15 min to complete prior to the focus group and they answered questions based on a collaborative effort they were currently involved in within Delaware. The tool did not need to be adapted for use in this study.

3.5. Data analysis

Data analysis began during document review and fieldwork, and continued throughout. Interviews and focus group conversations were recorded and transcribed. All qualitative data, including document review, were managed using NVivo 12.0, using one codebook. The analytic strategy for qualitative data was thematic analysis, which was used to identify and compare themes across data sources. (Riessman, 2008) Inductive coding was used to allow themes to emerge throughout the analytical process and deductive coding was used to examine the findings in relation to relevant theories. Deductive coding was conducted by two study team members with substantial inter-rater reliability (Cohen's kappa co-efficient of 0.65). (Hallgren, 2012) Triangulation of methods was used to check the internal validity of each data source. Findings from document review, out-of-state interviews, in-state interviews, focus groups, and quantitative data were compared. The qualitative methods used led to the identification of themes and patterns across HiAP sources, which informed identified best practices and gaps in implementation. Results of the questionnaire were analyzed using descriptive statistics (frequencies and means) in accordance with the recommended approaches. (Mattessich and Johnson, 2018).

4. Results

Results are organized into three areas: 1) HiAP implementation best practices, 2) gaps in HiAP implementation, and 3) perceptions of HiAP in the example jurisdiction of Delaware. The first two areas respond to our first aim. The third area responds to our second aim.

4.1. HiAP implementation best practices

Eleven HiAP best practices were identified and synthesized into a succinct list to inform future HiAP efforts (Table 2). Best practices for HiAP include: achieving short-term wins to build credibility, engaging community to combine bottom-up and top-down approaches, and securing adequate staff and funding to carry out work. It is also important to evaluate HiAP efforts, promote a shared understanding of the social determinants of health and equity, and continuously build relationships across sectors.

While not every HiAP initiative may need to use all eleven best practices to meet their goals, the document review found and the interviews confirmed that adopting more best practices increases the likelihood that a HiAP effort will advance its mission and be sustained. For example, South Australia's HiAP logic model highlights each of the listed best practices except for engaging community and achieving short-term wins (although both may occur in practice). South Australia's effort has lasted over a decade and demonstrated outcomes such as increasing policymaker's understanding of their effect on health. (Government of South Australia and World Health Organization, 2017).

4.2. HiAP implementation gaps

Interviews and the document review from aim one demonstrated two consistent gaps in HiAP implementation. The first gap is

Table 2
HiAP Best Practices.

Best Practice	Overview
Achieve Short-Term Wins	Early wins are important to build trust and credibility with stakeholders.
Adapt to Context	HiAP approaches are flexible to meet the needs of any context. All HiAP approaches must consider how to adopt and implement HiAP based on context.
Be Flexible	As contexts change, HiAP needs to change with them. HiAP approaches need to be ready to pursue new windows of opportunity. This is critical for sustainability.
Build Relationships	Relationships across sectors are the foundation of HiAP. Relationship building needs to take place throughout the intervention and be allocated significant time.
Communicate Co-benefits	Co-benefits (the positive outcomes of HiAP that will benefit each partner) need to be clearly and consistently communicated to stakeholders. Health cannot be seen as the sole driver of the approach.
Engage Community	Integrate the voice of community into HiAP to combine both bottom-up and top-down approaches.
Evaluate	HiAP outcomes need to be measured to make consistent improvements and to show observable outcomes to stakeholders. Evaluations are an ongoing challenge for HiAP.
Identify Champions	Champions, both administrative and political, need to provide vocal support in order get significant buy-in and secure resources.
Promote Shared Understanding	Stakeholders need to understand the social determinants of health and equity in order to be motivated to be involved in HiAP.
Secure Resources	Adequate staffing and financing are necessary to advance HiAP. This is consistently a challenge.
Use formal and informal approaches	Many HiAP initiatives aim to have a formal structure in place (e.g. legislation), even if there is low stakeholder buy-in and few results. A combination of formal and informal approaches is strongest.

communications as HiAP practitioners do not adequately use strategic communications to increase buy-in across sectors. The second gap is flexibility since practitioners do not fully recognize the importance of being adaptable throughout HiAP implementation, which hinders sustainability.

4.3. Communications

Interviews and the document review reveal that HiAP practitioners do not adequately utilize strategic communications when engaging external stakeholders. External stakeholders include potential HiAP partners across sectors and the community in which HiAP is implemented.

Effective communications among external stakeholders is critical for generating a shared understanding of HiAP work. (Association of State and Territorial Health Officials. THE STATE OF HEALTH IN ALL POLICIES. Jama., 2013; Government of South Australia and World Health Organization, 2017)As one HiAP expert stated: "I think that probably our biggest challenge is providing information to people, and training, so they understand [our work]. […] We found that we put in significant time and energy, spending time with our partners to kind of bring them to a place that they really understand the approach and what it is that we're doing and why".

Communications are important to promote co-benefits with potential partners. One document explained that, "many 'first generation' HiAP initiatives experienced a long gestation period during which much of the work was to convince other actors of the co-benefits of working together". (Government of South Australia and World Health Organization, 2017)Further illustrations include how communications can help regularly disseminate information about observable outcomes and how using intentional messaging can reduce the complexity of the approach.

Some HiAP practitioners recognize the importance of communications and convene cross-sector meetings or develop informational materials. For instance, Vermont's HiAP initiative developed an infographic of the state's health and equity framework to use in communications with cross-sector partners. (Vermont, 2017)HiAP communications tend to occur sporadically, without a specific plan or strategy. The findings suggest that practitioners do not use comprehensive, strategic communications (such as those developed through theory-based communications plans) to advance HiAP.

4.4. Flexibility

An important, if under-recognized, HiAP practice is being flexible in how the approach is carried out. The importance of flexibility is noted across interviews and the document review but is not recognized as essential to HiAP's success. Notably, flexibility is also listed as a best practice, which highlights its role as essential to HiAP success. Flexibility can include modifying the tactics used to achieve aims, such as focusing on educational efforts rather than changing decision-making structures. One report from the National Association of County & City Health Officials includes the following suggestion to HiAP practitioners: "Prepare for the unexpected. Investing the time to prepare for unknown future circumstances is important for success in HiAP" (National Association of County and City Health Officials (NACCHO) (2014)). Practitioners need to be prepared for changes in funding, stakeholders, and changing political priorities.

Key informants noted that by being flexible throughout the approach, HiAP can be adapted to fit current priorities. One HiAP expert said it was important they were "being really clear about the vision and using whatever vehicle was available". This quote acknowledges an aspect of flexibility includes clearly identifying HiAP goals and feasible avenues to achieve those goals. For example, HiAP efforts may live within wider efforts to promote environmental sustainability, active transportation, or general wellness. (Rudolph et al., 2013; Association of State and Territorial Health Officials. THE STATE OF HEALTH IN ALL

POLICIES. Jama., 2013; Government of South Australia and World Health Organization, 2017)The document review of HiAP initiatives found and interviews confirmed that to advance HiAP principles sustainably, health and equity need to be integrated into decision-making in ways that best reflect the context at any given time.

4.5. HiAP perceptions in Delaware

Delaware was used as an example to consider HiAP operationalization in a specific context. Interviewees and focus group participants in Delaware were asked about their perspectives on HiAP to inform potential facilitators and barriers to implementation. A range of responses was found. For example, interviewees were largely supportive of HiAP and adopting it in the state. However, there was no consensus on *how* to implement HiAP in Delaware.

Ideas for implementing HiAP ranged from an executive order to small, incremental projects. Practitioners expressed interest in both top-down and bottom-up approaches. For example, some thought a mandate would best advance HiAP while others did not believe policymakers were interested in doing so. Further, one practitioner favored focusing on high-level legislative while another stated that community-level change is "the heart of" HiAP. Another practitioner recommended a different approach, stating: "I would go to heads of the foundations and the departments and say, 'We really want you to integrate [HiAP] across all of your funding streams'". The variety of perspectives on how to move HiAP forward represented a disconnect among practitioners of how to operationalize the approach.

Focus group participants in Delaware, all of whom work outside of public health, were generally unfamiliar with the term HiAP. Once HiAP was described, many respondents found it to be complex. Several noted they thought HiAP was already occurring in some way, and pointed to recent upstream work undertaken by the state. Several were supportive of the general idea of HiAP but felt how HiAP is executed is what truly matters. For example, one stated, "So that's how people look at things – what does it do and [how does it] affect me? It's tough, what you're trying to do makes a lot of sense but implementing it may be real difficult".

5. Discussion

This study outlines considerations for public health practitioners to enhance HiAP implementation. Two conclusions from this work are that HiAP implementation may benefit from 1) updating Rudolph et al.'s five key elements of HiAP to include communications and flexibility and 2) examining local perspectives on HiAP before implementation to inform the approach based on a specific context.

Rudolph et al. introduced the five key elements in 2013 and, nearly a decade later, the elements need to be revisited based on current research and the findings of this study. This study is the first to recommend an adaptation to Rudolph et al.'s key elements. While this study generally supports those elements, two updates are needed based on the results: a sixth element, flexibility, should be added and communications should be considered across all six elements (Fig. 1).

While nominally mentioned in some HiAP documents (National Association of County City Health Officials. Health in All Policies: Experiences from Local Health Departments., 2017; Association of State and Territorial Health Officials. THE STATE OF HEALTH IN ALL POLICIES. Jama., 2013; Government of South Australia and World Health Organization, 2017)and interviews, the relevant literature rarely acknowledges the key role flexibility plays in keeping HiAP relevant and sustainable. Flexibility is accepted by practitioners as vital to HiAP's success and should be systematically integrated into existing and future efforts. If HiAP approaches are shaped around local context at the start, they need to continue to be molded to the environment as it changes over time. Practitioners may consider conducting regular environmental scans of their jurisdictions to determine contextual changes (such as shifts in political priorities), consider how they affect HiAP goals and sustainability, and how to adapt accordingly.

Further, communications should be considered across all six of the updated HiAP elements. Despite consensus that communications need to be used to promote HiAP, few HiAP documents discuss strategic communications– purposefully using communications with external stakeholders to advance adoption and implementation efforts. (Rudolph et al., 2013; Government of South Australia and World Health Organization, 2017) Strategic communications are lacking in practice and should be integrated to advance HiAP's key elements. For example, achieving the third key element – benefitting multiple partners – is challenging due to the difficulty of communicating HiAP's benefits to cross-sector partners. Using strategic communications, practitioners can develop a comprehensive communications plan, including developing messaging that reflects the partners' knowledge and values, and more effectively communicate advantages to multiple partners. Practitioners would benefit from embedding strategic communications across each element to advance HiAP.

The findings of this paper align with research outside of public health that focuses on complex and collaborative systems. For example, collaborative governance highlights the importance of building relationships, shared understanding and short-term wins. (Ansell and Gash, 2007) HiAP practitioners and researchers should build on this paper and relevant research in other fields to further incorporate lessons learned from similar collaborative models.

Engaging directly with professionals and residents in a jurisdiction provides an opportunity for HiAP practitioners to proactively assess gaps and consider how to integrate best practices. Specifically, HiAP practitioners can build on the strengths of a jurisdiction and plan for the challenges by identifying residents' HiAP perspectives. For example, we learned in the study from Delaware that many residents were unfamiliar with HiAP. As we think about the critical nature of including strategic communications in HiAP implementation, Delaware HiAP practitioners can build a communication plan centered on increasing HiAP knowledge, to increase buy-in statewide. Examining context prior to implementation provides an opportunity to tailor HiAP to the jurisdiction.

The COVID-19 pandemic underscores the need for public health to work collaboratively across sectors to improve health and equity. The foundation of HiAP – to benefit multiple partners, work across sectors, and engage with non-traditional stakeholders – is applicable to a public
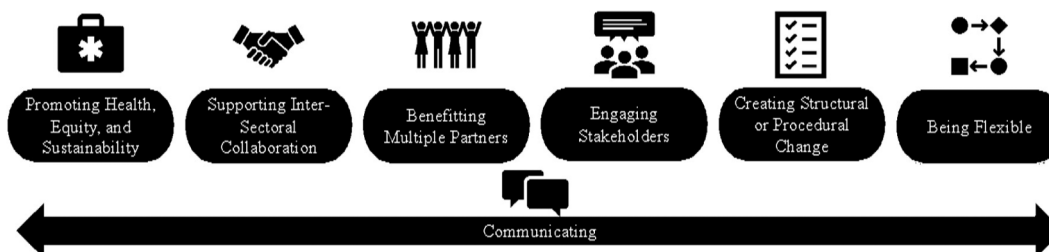

Fig. 1. Key Elements of Health in All Policies.

health system that, at times, struggles to meaningfully connect beyond its own boundaries. HiAP centers equity in its approach, a critical component as COVID-19 exacerbates longstanding health and racial inequities. Local, state, and national leaders can use the findings presented here as they continue to improve their COVID-19 response, as some have begun to do (Ware and Kerner, 2021), and inform recovery.

This research has several limitations. First, focus group participants may be susceptible to social desirability bias, adjusting their responses, recognizing other members of the group are listening. (Lavrakas, n.d.) Similarly, the questionnaire was self-administered, which may have led to response bias where the respondent aims to project a better image of themselves or their work than truly exists. (Rosenman et al., 2011) Further, interviewees and focus group participants were not randomly sampled, due to the nature of the study. To address the issues, data were triangulated from the document review, interviews, focus groups, and questionnaires.

An updated HiAP approach can lead to increased collaboration and efficiency and the consideration of health and equity across sectors. Practitioners should consider the lessons learned from this study as they implement new HiAP initiatives and improve existing efforts. By building HiAP approaches that integrate the updated essential elements, public health experts can move towards comprehensively addressing the social determinants of health and, over time, improving health and equity across communities.

CRediT authorship contribution statement

Rachael Cain: Conceptualization, Methodology, Validation, Formal analysis, Investigation, Resources, Writing – original draft, Writing – review & editing. **Jacey A. Greece:** Conceptualization, Methodology, Writing – review & editing. **Sandro Galea:** Conceptualization, Methodology, Writing – review & editing. **Robert A. Knox:** . **Erin K. Knight:** Conceptualization, Methodology, Writing – review & editing. **Allison Manco:** Validation, Data curation. **Amar Parikh:** Validation, Data curation. **David K. Jones:** Conceptualization, Methodology, Resources, Writing – review & editing, Supervision.

Declaration of Competing Interest

The authors declare that they have no known competing financial interests or personal relationships that could have appeared to influence the work reported in this paper.

Data availability

Data will be made available on request.

Appendix A. : OUT-OF-STATE INTERVIEW GUIDE

RESEARCH INFORMATION SHEET.

You are being asked to voluntarily participate in a research study. We are doing this study to hear your thoughts, opinions, and observations about your knowledge and experience regarding Health in All Policies. If you agree, we will ask you to answer questions during this interview, which will take approximately 45 min to one hour.

We will make an audio recording of the interview. If you ask us not to, we won't record you. If you agree to be recorded but later wish to retract a statement you made, you are encouraged to reach out and that statement will be retracted from the study.

We will not use any identity revealing information in any document produced from this research. We will store your information in ways we think are secure. We will store paper files in locked filing cabinets. We will store electronic files in computer systems with password protection and encryption. However, we cannot guarantee complete confidentiality.

If you have any questions, please contact xxx at xxx.

Interview Guide – Out-of-State Stakeholders.

Overall Research Questions.

1. What Health in All Policies adoption and implementation models are appropriate for the state of Delaware?
2. Using the Intervention Mapping Framework, how can such models be adapted to the state?

Read the following to the participant:

I would like to ask you some questions about your knowledge and experience regarding Health in All Policies. This research is being conducted for my Doctor of Public Health dissertation. I will ask you questions and take notes. With your permission, I would also like to record the interview – is that ok with you?

For confidentiality purposes, no identifying information will be used when analyzing this interview. Your employer, but not you or your occupation, will be noted and may be listed in resulting reports.

The interview should take 45 min to 1 h to complete. I appreciate your answering these questions with as much detail as you are willing and able to provide. Please feel free to ask any questions or tell me if you do not understand any of the questions that we ask. There are no right or wrong answers. You can refuse to answer any questions and may end the interview at any time.

IDI details.

IDI number: _____.

Interviewer's Name: _____.

Interviewee Geographic Location: _____.

Interviewee Employer: _____.

Interviewee Occupation: _____.

Length of Time in Occupation: _____.

Location of IDI: _____.

Date of IDI (DD/MM/YYYY): _____/_____/_____.

Start time: _____.

End time: _____.

Interview Questions.

1. How do you define Health in All Policies? What does this term mean to you?

Probe: How does your approach differ from other Health in All Policies approaches you are aware of?

2. What has been your experience or what is your knowledge of Health in All Policies adoption in [interviewee location]?

Probe:

a) Can you provide me with examples of your experience with HiAP adoption? What sectors were involved? How did these partnerships come about?
b) What stakeholders adopted early? Later on? What was the difference between these stakeholder groups?
3. What factors are vital to the successful adoption of Health in All Policies?

Probe: To what extent was HiAP:

a) Seen as better than the status quo? (Relative Advantage)
b) Consistent with values, experiences, and needs of stakeholders? (Compatibility)
c) Difficult to understand or use? (Complexity)
d) Piloted before the region fully committed? (Triability)
e) Providing tangible results? (Observability)
4. What are the challenges to Health in All Policies adoption?

Probe: To what extent was HiAP:

a) Seen as better than the status quo? (Relative Advantage)
b) Consistent with values, experiences, and needs of stakeholders? (Compatibility)
c) Difficult to understand or use? (Complexity)
d) Piloted before the region fully committed? (Triability)
e) Providing tangible results? (Observability)
5. What has been your experience or what is your knowledge of Health in All Policies implementation in [interviewee location]?

Probe: Can you provide me with examples of your experience with HiAP implementation?

6. What factors are vital to the successful implementation of Health in All Policies?

Probe: To what extent was there:

a) A common agenda?
b) A shared measurement system?
c) Mutually reinforcing activities?
d) Continuous communication?
e) Backbone support organizations?
7. What are the challenges to Health in All Policies implementation?

Probe: To what extent was there:

a) A common agenda?
b) A shared measurement system?
c) Mutually reinforcing activities?
d) Continuous communication?
e) Backbone support organizations?
8. Is there anything you would like to add?

Probe: Are there any key aspects of Health in All Policies adoption or implementation we have not discussed yet?
Thank you for your time!

Appendix B. : IN-STATE INTERVIEW GUIDE

RESEARCH INFORMATION SHEET.

You are being asked to voluntarily participate in a research study. We are doing this study to hear your thoughts, opinions, and observations about your knowledge and experience regarding Health in All Policies and work in Delaware. If you agree, we will ask you to answer questions during this interview, which will take approximately 45 min to one hour.

We will make an audio recording of the interview. If you ask us not to, we won't record you. If you agree to be recorded but later wish to retract a statement you made, you are encouraged to reach out and that statement will be retracted from the study.

We will not use any identity revealing information in any document produced from this research. We will store your information in ways we think are secure. We will store paper files in locked filing cabinets. We will store electronic files in computer systems with password protection and encryption. However, we cannot guarantee complete confidentiality.

If you have any questions, please contact xxx at xxx.
Interview Guide – In-State Stakeholders.
<u>Overall Research Questions</u>.

9. What Health in All Policies adoption and implementation models are appropriate for the state of Delaware?
10. Using the Intervention Mapping Framework, how can such models be adapted to the state?

Read the following to the participant:
I would like to ask you some questions about your knowledge and experience regarding Health in All Policies. This research is being conducted for my Doctor of Public Health dissertation. I will ask you questions and take notes. With your permission, I would also like to record the interview – is that ok with you?

For confidentiality purposes, no identifying information will be used when analyzing this interview. Your employer, but not you or your occupation, will be noted and may be listed in resulting reports.

The interview should take 45 min to 1 h to complete. I appreciate your answering these questions with as much detail as you are willing and able to provide. Please feel free to ask any questions or tell me if you do not understand any of the questions that we ask. There are no right or wrong answers. You can refuse to answer any questions and may end the interview at any time.

IDI details.
IDI number: _____.
Interviewer's Name: _____.
Interviewee County: _____.
Interviewee Employer: _____.
Interviewee Occupation: _____.
Length of Time in Occupation: _____.
Location of IDI: _____.
Date of IDI (DD/MM/YYYY): ____/_____/_____.
Start time: _____.
End time: _____.
Interview Questions.

1. Tell me about your experience with collaboration in Delaware in the last ten years, as it relates to how often organizations collaborate, who it typically involves, and how the collaboration works.

Probe: Please provide specific examples of your experiences. Are people usually willing to collaborate? Who is collaboration typically with (within department, within organization, within sector, across sectors)?

2. What is currently happening in Delaware with regards to collaboration to improve health? Do multiple sectors (e.g. education, transportation, health) work together regularly?

Probe: Please provide specific examples. If initiatives are occurring, what are they, what are its goals, and who is involved? If nothing is occurring, why do you think this is?

3. What factors have been vital to the success of prior or current collaboration efforts?

Probe: To what extent was there:

f) A common agenda?
g) A shared measurement system?
h) Mutually reinforcing activities?
i) Continuous communication?
j) Backbone support organizations?
4. What are the challenges of prior or current collaboration efforts?

Probe: To what extent was there:

a) A common agenda?
b) A shared measurement system?
c) Mutually reinforcing activities?
d) Continuous communication?
e) Backbone support organizations?
5. What is the interest level in new collaborative initiatives to improve health? What would motivate stakeholders to be involved?

Probe: Are there any key individuals or organizations that should lead the effort? How would you suggest engaging those fatigued by existing meetings, coalitions, etc.?

6. What does the term Health in All Policies mean to you? Have you witnessed any Health in All Policies-related activities in Delaware?

Probe: Please provide specific examples of your experiences. What types of activities occurred, when did they occur, and who was involved? (*If unfamiliar*, HiAP is "… a collaborative approach to improving the health of all people by incorporating health considerations into decision-making across sectors and policy areas." *For example, to address type 2 diabetes, private employers could partner with the state Department of Public Health to offer diabetes screenings and provide diabetes education courses, and partner with the Department of Transportation to identify active transportation options, to increase physical activity. Such initiatives are likely to improve the involved entities' employee health, which increases productivity and reduces healthcare spending over time.)*

7. What factors would be important to adopting Health in All Policies in Delaware? Who would lead the effort?

Probe: To what extent do you believe HiAP would be:

f) Seen as better than the status quo? (Relative Advantage)
g) Consistent with values, experiences, and needs of stakeholders? (Compatibility)
h) Difficult to understand or use? (Complexity)
i) Piloted before Delaware fully committed? (Triability)
j) Providing tangible results? (Observability)
8. Is there anything you would like to add?

Thank you for your time!

Appendix C. : FOCUS GROUP GUIDE

FOCUS GROUP DISCUSSION GUIDE.
Focus Group ID: _____.
Date of Consent: __/__/____.
Date of Interview: __/__/____.
Conducted By: _____.
RESEARCH INFORMATION SHEET.

You are being asked to voluntarily participate in a research study. We are doing this study to hear your thoughts, opinions, and observations about working with other sectors (e.g. transportation working with education). If you agree, we will ask you to participate in the focus group, which will take approximately-one hour.

We will make an audio recording of the focus group for the sake of notetaking. If you ask us not to, we won't record you. If you agree to be recorded but later wish to retract a statement you made, you are encouraged to reach out and that statement will be retracted from the study.

We will ask every-one in the focus group not to talk about the discussions outside the group. However, we can't promise that every-one will keep what you say confidential.

We will not use any identity revealing information in any document produced from this research. We will store your information in ways we think are secure. We will store paper files in locked filing cabinets. We will store electronic files in computer systems with password protection and encryption. However, we cannot guarantee complete confidentiality.

If you have any questions, please contact xxx at xxx.
FOCUS GROUP DIRECTIONS.

Hello, my name is xxx and I will be facilitating this focus group with you. I want to thank you all for taking time to participate in this focus group discussion with me today.

First, I would like to assure you all that I will do everything possible to ensure confidential of this discussion. I will be recording this interview and _____ will be taking notes; however, only first names will be used during the focus group but no identity revealing information will be included in what we publish from this research. **No one has to answer any questions that you do not want to answer.** Any time any of you want to stop participating or stop the recording, you can tell me and we will stop. Any of you can decide not to take part in this focus group at any time without any negative consequences.

Before we begin the focus group, I want to provide direction for how it will be conducted. I will start the focus group by asking the first question and then facilitate from there as I incorporate the rest of the questions I have into the discussion. I would like you to do the majority of the talking and for every-one to participate to the best of their ability and comfort. We want to hear from every-one, so I may ask for different people to share their thoughts on a particular topic or question, especially if I haven't heard from you yet. There are no right or wrong answers to any of the questions asked. Additionally, I ask that you avoid using abbreviations, acronyms, or language specific to your line of work, to ensure that myself and every-one in the room understands what you say correctly.

Do you have any questions before I start?YESNO.
Would you like to participate in this research study? YESNO.
QUESTIONS.

1. Can each of you tell me about your experience working with sectors outside your own? How does your sector work with other sectors?

Probe: Provide a specific example. How often does this occur? Is it ongoing?

2. Why and how did such cross-sector partnerships come about?

Probe: Who was involved? How was it organized?

3. Considering a cross-sector partnership you were involved in or know about, what aspects of the partnership helped it to succeed? Why?

Probe: To what extent was there:

a) A common agenda?
b) A shared measurement system?
c) Mutually reinforcing activities?
d) Continuous communication?
e) Backbone support organizations?
4. Considering a cross-sector partnership you were involved in or know about, what aspects of the partnership hindered its success? Why?

Probe: To what extent was there:

a) A common agenda?
b) A shared measurement system?
c) Mutually reinforcing activities?
d) Continuous communication?
e) Backbone support organizations?

5. What would motivate you to be a part of a multisector group? What would help you sustain it?

Probe: Which of the below are important motivators? Are any more important than the other? The collaboration:

a) Seen as better than the status quo? (Relative Advantage)
b) Consistent with values, experiences, and needs of stakeholders? (Compatibility)
c) Difficult to understand or use? (Complexity)
d) Piloted before the region fully committed? (Triability)
e) Providing tangible results? (Observability)
6. I am doing this research to explore an idea called Health in All Policies, which is a multisector approach to consider how health is impacted by policies across sectors. For example, to address type 2 diabetes, private employers could partner with the state Department of Public Health to offer diabetes screenings and provide diabetes education courses, and partner with the Department of Transportation to identify active transportation options, to increase physical activity. Such initiatives are likely to improve the involved entities' employee health, which increases productivity and reduces healthcare spending over time.

I'm interested in knowing how such an idea would be received in Delaware. Have you heard of Health in All Policies before? What do you think of it?

Probe: How do you think others in your sector would react to this approach?

7. Is there anything else you would like to add?

Thank you for your time!
Facilitator Name/Signature: _____.
Notetaker Name/Signature: _____.
Date: _____.

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