IOWA PUBLIC HEALTH DATA NEEDS ASSESSEMENT

Vickie Miene, Nichole Nidey, Jim Torner, Anjali Deshpande

THE UNIVERSITY OF IOWA

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Contents

Executive Summary

The Iowa Department of Public Health (IDPH) has identified the ability to manage, analyze, and act on data to improve operations and health outcomes is a key priority that is woven into and throughout the agency's strategic plan. The Iowa Public Health Tracking Portal, (IPHTP) a public web-based portal, which provides state and county level public health data, is central to this goal. The IPHTP provides the opportunity to share a range of data with a variety of audiences including, public health practitioners, elected officials, educators, researchers and the public. Although currently the IPHTP is vastly underutilized, it has the potential to be a tool that could significantly enhance evidence-based, public health decision-making in Iowa.

The IPHTP was created to provide data at the state and county level for health topics and data resources at IDPH. The foundation of the IPHTP was built upon an Environmental Health Tracking database funded by CDC but has expanded by including additional datasets. A new version of the IPHTP was launched in September 2016. The revised portal includes updated dashboards, new reports including graphs and improved navigation. In spite of these efforts, the portal is vastly underutilized.

Many opportunities exist with the IPHTP to provide data and information to Iowa's public health stakeholders; however, there has not been an evaluation of what will best meet the needs of public health stakeholders. The Iowa Institute of Public Health Research and Policy (IIPHRP) was contracted by the IDPH in October 2016 to provide a public health data needs assessment to better understand the needs of stakeholders and the role of the IPHTP. IIPHRP conducted a mixed methods assessment that engaged multiple stakeholders, from multiple sectors through a combination of on-line surveys, focus group sessions and individual interviews. In addition, the evaluation team reviewed additional data such as IDPH data portal analytics (i.e. overall portal traffic, unique visitors, top pages viewed).

The results of this assessment include short term and long-term recommendations that are intended to provide guidance to IDPH as they identify and dedicate resources to the public health data needs of stakeholders. Full recommendations can be found at the end of the report but an overview of recommendations include the following:

- Develop key indicators of success for the IPHTP and evaluate regularly
- Prioritize resources based on the identification of primary user audiences
- Rebrand the IPHTP specifically to define benefits and purpose of the IPHTP
- Utilize existing meetings, conferences, and social media to create and enhance awareness of the IPHTP
- Develop training (using multiple methods) for specific workforce development and continuing education regarding the use of public health data
- Provide dedicated and ongoing technical assistance and training to users of the IPHTP
- Expand available data, linkage, and mapping functionality
- Develop tools that will allow users to generate one page fact sheets and infographics regarding IPHTP data
- Create a communication plan for the IPHTP to share news, updates, and public health data information
- Develop tools to improve the user experience such as user accounts and short documents that provide trusted resources and technical guidance
- Develop mechanisms to report local data including community needs assessments

Project Overview

According to a summary data work plan document from the Iowa Department of Public Health, there is a lack of timely data available, which is needed by Iowa's public health leaders to make decisions related to health planning in local communities. Although the Iowa Department of Public Health (IDPH) and federal funders have identified many issues affecting population health, IDPH does not consistently provide access to data related to these topics necessary for effective planning. Additionally, the Iowa Public Health Advisory Council, a stakeholder group that advises the IDPH Director, has identified data, including county and sub-county level data, as an unmet need. In addition, IDPH receives requests for confidential data sets as well as counts and other types of data analysis, from both internal and external partners. It is anticipated that these requests will increase as the need for programmatic and complex planning data increases.

IDPH has identified the ability to manage, analyze, and act on data to improve operations and health outcomes as a key strategic priority. The Iowa Public Health Tracking Portal, (IPHTP) a public web-based portal, which provides state and county level public health data, is central to this goal. The IPHTP provides the opportunity to share a range of data with a variety of audiences. The IPHTP was created to provide data at the state and county level for health topics and data resources at IDPH. The foundation of the IPHTP was built upon an Environmental Health Tracking database funded by CDC. A new version of the IPHTP was launched in September 2016. The revised portal includes updated dashboards, new reports including graphs and improved navigation. In spite of these efforts, the portal is vastly underutilized.

The IPHTP provides significant opportunity to share data (both public and secure data) with a large audience including, public health practitioners, elected officials, educators, researchers and the public, to significantly enhance evidence-based public health decision-making in Iowa. The IPHTP includes both an open and a secure portal. The open portal provides analyzed data to the public on a variety of public health topics. A secure portal allows local public health and other public health practitioners access to suppressed data and additional analytic tools. Data available on the tracking portal are limited, and programmatic and external feedback has identified some key areas for expansion, which could add value to the portal. The tracking portal currently only utilizes 10% of all data sets collected by IDPH, leaving a large gap between data collection and data access. [1]

The Iowa Institute of Public Health Research and Policy (IIPHRP), at the University of Iowa, College of Public Health was contracted by the Iowa Department of Public Health to develop, conduct, and analyze a data needs assessment to determine how the IDPH can better meet the needs of its stakeholders. The purpose of the needs assessment is to understand the data needs of stakeholders (internal and external) specifically to identify desired data sets and indicators, desired tools for data manipulation, and desired data visualizations. Stakeholders include local public health practitioners, educators, contractors, health departments, legislators and internal IDPH personnel.

Many opportunities exist with the IPHTP to provide data and information to Iowa's public health stakeholders; however, there has not been an evaluation of what will best meet the needs of public health professionals. The results of this assessment, including short term and long term actionable recommendations, will help IDPH identify strategic areas to improve and expand data access both internally and externally to IDPH, including, but not limited to, the IPHTP. The findings from this

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[1] IDPH tracking portal work plan, March 2016

evaluation are intended to enhance the Iowa Public Health Tracking Portal through improved functionality and data expansion. Additionally, findings will provide insight to the datasets, topics, indicators, types of analysis, and data presentation needed by stakeholders for their work.

Methodology

IIPHRP conducted a mixed methods assessment that engaged multiple stakeholders, from multiple sectors through a combination of on-line surveys, focus group sessions and individual interviews. In addition, the evaluation team reviewed additional data such as IDPH data portal analytics (i.e. overall portal traffic, unique visitors, top pages viewed). The evaluation team also reviewed information regarding data requests that come into IDPH. The methods and data collection tools follow below.

Stakeholders

Broad stakeholder identification was completed through directed conversations with the College of Public Health (CPH) evaluation team and the IDPH data management team. The CPH evaluation team members are provided in Table 1 below.

Table 1: College of Public Health Evaluation Team Members		
Principal Investigator	Jim Torner, PhD	Department Executive Officer and Professor, Epidemiology
Project Director	Vickie Miene, MS, MA	Deputy Director, IIPHRP
Consultant	Anjali Deshpande, PhD, MPH	Professor, Epidemiology
Graduate Research Assistant	Nichole Nidey, MS	PhD Candidate
Graduate Research Assistant	Joy Woods	MPH Candidate

The IDPH Data Management team members are provided in Table 2 below:

Table 2: IDPH Data Management Team Members	
Director of Data Management	Betsy Richey, PhD, MPH
Retired	Martha Gelhaus
IDPH Chief Information Officer	Lon Laffey
Environmental Epidemiologists	Tim Wickam, MPH
Data Management Business Analyst	Bill Brant
Planning and Performance Manager	Jonn Durbin, MA, CPM
Informatician	John Satre
Lead Database Architect	Jeff Hoyem
Deputy Director	Sarah Reisetter, JD, MPA

During joint meetings of members of the CPH and IDPH evaluation team, brainstorm sessions generated lists of key stakeholders from multiple sectors and who had multiple data needs. Key stakeholders identified through this method included:

- Local county public health departments
- Iowa Department of Public Health key personnel and data users such as:
  - The Data and Informatics Community of Practice
  - Program managers and staff
  - Executive leadership
  - Healthy Iowans staff
  - Community Health Needs Assessment (CHNA) and Health Improvement Planning (HIP) staff
  - State Innovation Model staff
- Educators
- Iowa Legislators
- Other Public Health Users including community foundations, boards of health representatives and community agency representatives other than local public health that use public health data

In addition, as we engaged with stakeholders for purposes of conducting the survey and focus group activities, additional stakeholders were identified.

Survey

An online survey tool was developed to assess five core areas of interest including general knowledge of the Iowa Public Health Tracking Portal (IPHTP), general stakeholder data needs, data consumption preferences, data collection activities, dissemination and use of data, and data sharing protection and confidentiality policies. In addition, the survey included an "about me" section that helped define basic demographics about the respondent, their agency (or if IDPH their position), geographic coverage area and overall competency using the portal and working with data.

IPHTP knowledge

Stakeholder data needs

Data consumption preferences

Data collection

Dissemination and use of data

Data sharing protection and confidentiality policies

Respondent demographics

Members of the CPH evaluation team and the IDPH data management team jointly developed questions for the survey and focus groups. Questions were brainstormed, reviewed for clarity, revised and reviewed again to assure that information collected would be useful and informative to the overall goal of helping IDPH determine the data needs of stakeholders. The on-line survey was piloted with a small group of personnel who possessed a unique understanding of public health data and stakeholder needs. The pilot testing group included a recently retired Public Health Director, an educator, a recently retired CEO of a community-based agency, an IDPH data management team member and an IDPH staff member. The pilot resulted in making changes to the questions, in particular to change some of what the pilot testers
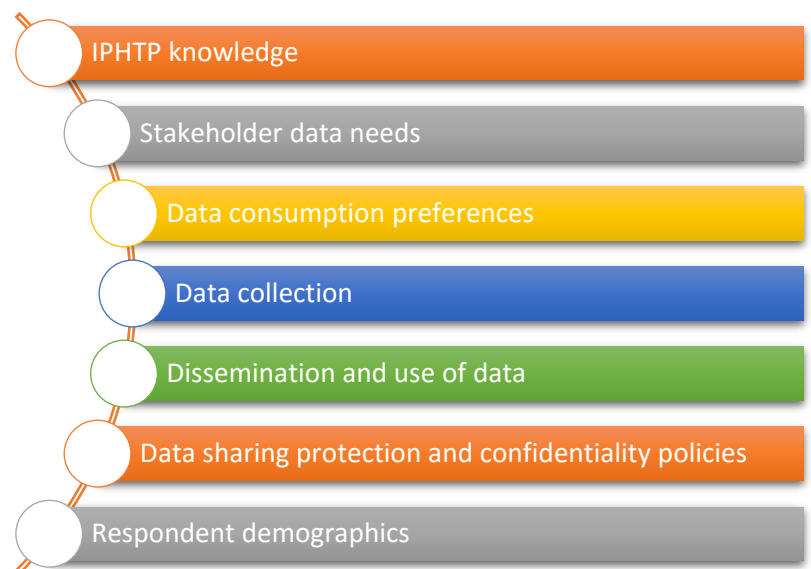
called industry jargon, to more nonprofessional terms. The revised questions were piloted with the same group a second time and significant clarity was reached.

Outreach to complete the survey was done via email. The on-line survey was sent to four groups. The Community Based Stakeholder group and the IDPH personnel group received a comprehensive survey that took respondents about 15 minutes to complete. The legislative representatives and educators received a shorter survey that took less than five minutes to complete. Survey questions can be found in Appendix 1.

The first group, "Community Based Stakeholders" (CBS) included local public health directors and data analysts (where available), and community based agency leaders other than public health representatives such as private foundation leaders and representatives from local health boards. In addition, the survey was sent to members of the IDPH Advisory Board. From CBS, 82 persons were sent the survey through a secure online link.   A total of 57, CBS responded to the survey, a response rate of 69%. See Figure 1 – *What type of organization best describes who you are employed by?*

Figure 1: What type of organization best describes who you are employed by?
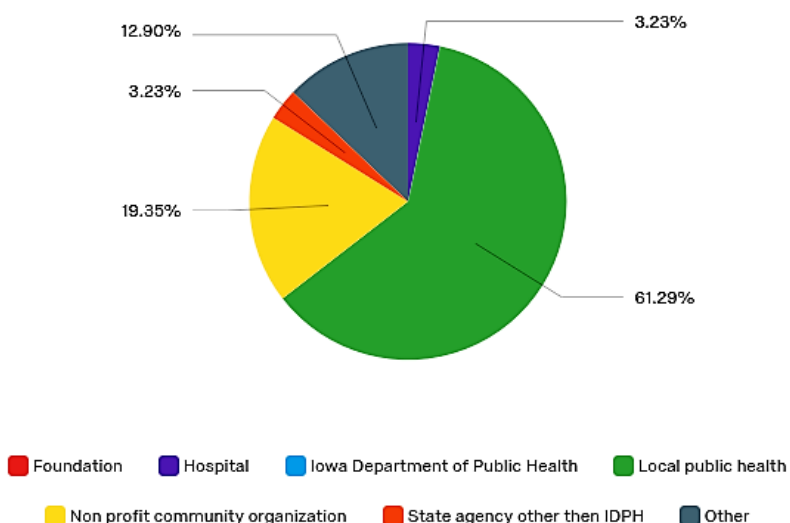
A separate survey was sent to selected IDPH personnel (IDPHP). Program coordinators, program managers, bureau chiefs of the various departments of IDPH as well as the executive leadership were provided the survey via a secure online link.   A total of 59 identified IDPHP were sent the survey through a secure online link.   A total of 47 IDPHP responded to the survey, a response rate of 79%. See Figure 2 – "*What is your employment position at IDPH?* ", for information about the positions held at IDPH by the survey respondents.

Figure 2: What is your position at IDPH?
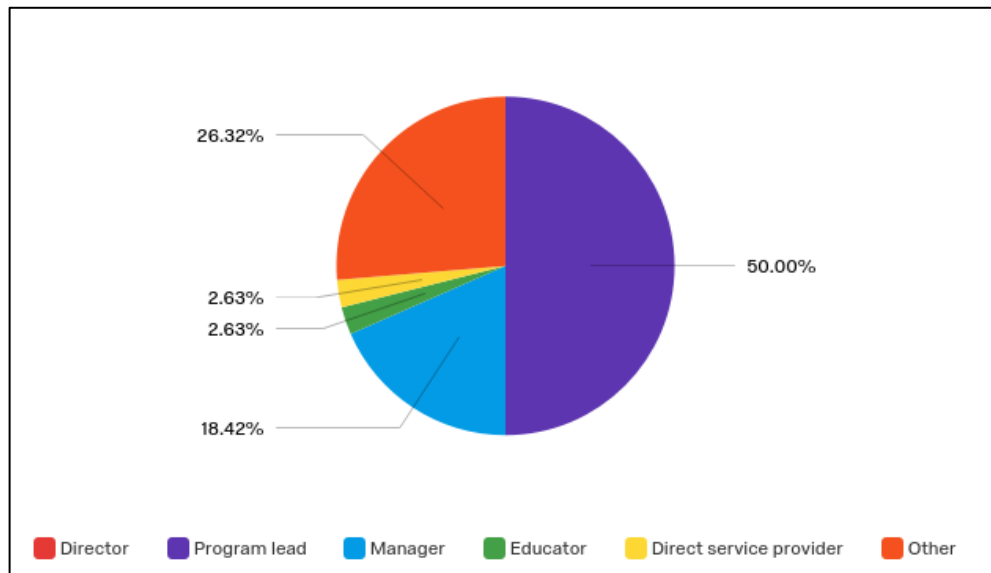
Respondents had 15 days to reply to the survey, which was expected to take less than 15 minutes to complete. A description that accompanied the survey explained the purpose of the survey and encouraged participation. Two reminders were sent to encourage respondents to complete the survey. Results of the survey from these groups provided further clarity and specificity to the individual interview and focus group question development.

Additionally, a short survey was sent to a group of educators (University of Iowa, University of Northern Iowa and Des Moines University). Twelve surveys were sent and nine returned for a response rate of 75%. In addition, one professor who teaches a course, "Public Health Data" at the UI College of Public Health, included a guest lecture about the IPHTP and asked her students to complete the focus group homework assignment and provide feedback regarding the functionality and "user friendliness" of the portal.

Finally, a short survey was sent to elected officials who serve as Legislative Leadership for General Assembly 87 (01/09/2017-01/13/2019) and those who serve on the Health and Human Services Appropriations Subcommittee for General Assembly 87. Thirty-five surveys were sent and 12 received for a response rate of 34%.

Focus groups
Initially, focus groups were planned to include participants from across Iowa, each in an IDPH region, scheduled in coordination with the Regional Community Health Consultant quarterly meeting. However, due to scheduling difficulties, availability of space, and geographic distance, limited response was received from participants so an alternative plan was devised which included individual interviews and focus groups held via Zoom video conferencing. Focus groups (3-10 members) were held with public health personnel in small and large public health offices. Due to the large geographic area, video conferencing and audio conference calling was used to include all who wanted to participate.

Focus groups were held specifically for members of the IDPH staff and included the following breakdown;

- IDPH executive leadership team
- Data and informatics Community of Practice
- IDPH Program managers and coordinators
- IDPH supervisory staff

A pre-focus group assignment (see appendix 2) was provided to all participants ahead of the focus group. Completion of this exercise took approximately 10 minutes and assured evaluators that participants had used the IPHTP at least once, which greatly helped to focus the conversation.

Individual Interviews

Individual Interviews were conducted with identified stakeholders who could not or who elected not to participate in a focus group setting.

Outreach to participate in a focus group or individual interview occurred initially through email invitations. Due to lack of response from the email solicitation, phone calls were made to several public health offices in the state to schedule an interview or focus group discussion. Voice messages were left and two attempts were made. In total, four focus groups and three individual interviews were held with CBS. An additional six focus groups were held with IDPHP.

Summary of Information Acquisition

In total, there were 194 participants from across the state. Table 3 provides specific information about each data collection method. Information from CBS who were identified as public health data users included stakeholders from small and large county public health offices from across the state, other community based agencies, foundations and members of boards of health.

Table 3: Total Assessment Participants	
CBS Survey	57
CBS Focus group/Interviews	26
IDPHP Survey	47
IDPHP Focus group/Interviews	43
Educator Survey	9
Legislative Survey	12
Total Participants	194

Results

Vision Overview

The CPH evaluation team held a focus group with members of the IDPH Executive Leadership (EL) to discuss the long-term vision and role of the IPHTP in our current data thirsty environment. Members of the EL stressed they believe the IPHTP has a unique niche to fill in our current environment. Public Health is changing because the needs of the population are changing. One such change is the conversion to *an internet-based, consumer-driven communications environment*. In this new world, public health's role will become that of a "Chief Health Strategist". In summary, public health currently, is the primary collector of population health information. This role will be reduced as new, diverse and real-time databases emerge. However, the public health role as interpreter and distributor of information will become more pronounced. Governmental public health will have the responsibility for surveying and aggregating the many sources of data and ensuring accessibility of the essential information in understandable formats[2]. The IPHTP therefore can fill a unique niche.

"The vision for IPHTP is to be the go-to resource for health information. We want to draw people in and create a desire among folks to understand public health surveillance and effectiveness"

- Executive Leadership Participant

The need, use of, interpretation and distribution of data has been and continues to be fundamental to the work of the IDPH. The IDPH updated strategic plan places much emphasis on data as evidenced by a review of the plan and recognition that data is woven throughout the plan [3]. In addition, the IDPH EL emphasizes the desire to surpass the expectations of transparency and accountability that are dominant themes in today's society. The IPHTP can also help in this goal.

The struggle to move the IPHTP toward the above potential is determining what is practical, what is of interest, and what direction is going to provide the most return on investment. There is much that can be done from developing infographics and one pagers to summarize data and tell the story, to using the data in the IPHTP for quality improvement practices, to linking various data sets, to becoming a "one-stop-shop" for data users. An additional challenge is funding for the IPHTP. Currently the funding for the portal comes from grant resources that can be vulnerable depending on the political environment. Building enhancements to the IPHTP will require additional and sustainable resources to keep the data current and the users satisfied. One emerging threat for the IPHTP in addition to limited resources is the platform the IPHTP was built upon. The portal is built in SharePoint and in the future, the IPHTP may need to be moved to another platform.

IDPH data portal analytics

Overall, portal traffic, including unique visitors, the most frequently viewed pages and bounce back activity was reviewed for the period of August 2016 through March 2017. The information indicates low user traffic for both the secure (SEC) and the public (anonymous)(ANON) portal site. Figure 3 shows
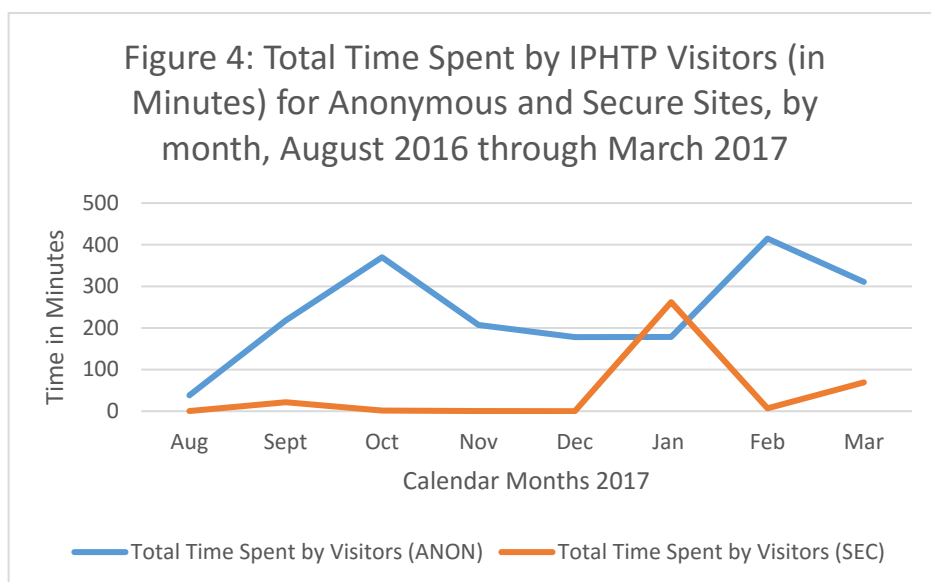
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[2] The high Achieving Governmental Health Department in 2020 as the Community Chief Health Strategist, Public Health Leadership Forum, convened by RESOLVE with funding from RWJF

[3] IDPH Strategic Plan Updated 2017

Figure 3: IPHTP Unique Visitors for Anonymous and Secure Sites, by month, August 2016 through March 2017
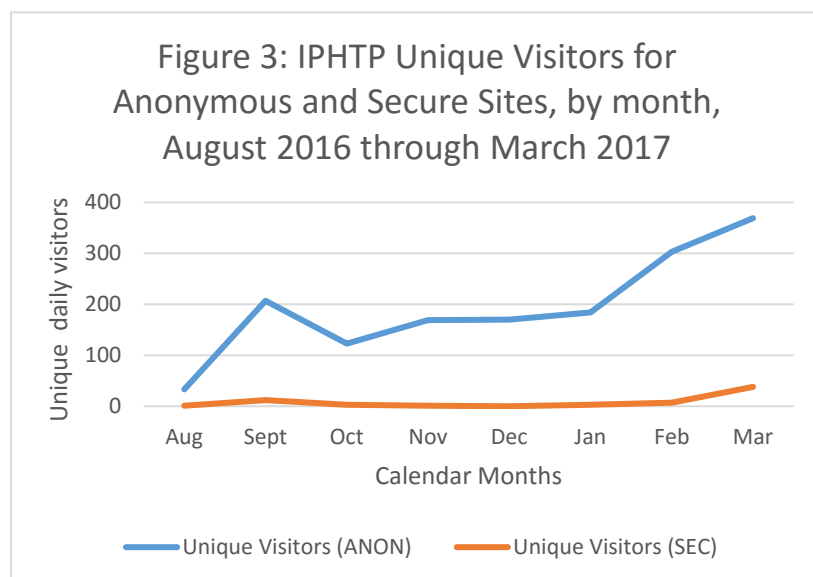
unique visitors to both sites, and although overall usage is best described as low, there was an overall increase in site traffic during August and September of 2016 and during the first quarter of the 2017 calendar year.

Figure 4 shows time spent by unique users during the same timeframe of August 2016 through March of 2017. There was an increase of users (Figure 3) and increase of time spent (Figure 4) in the months of August, and September 2016 and again in January and February 2017. This could be due to the attention dedicated to the portal by IDPH during marketing and awareness of new updates in Fall 2016 and again due to IIPHRP asking users to complete homework assignments for the purposes of completing this data needs assessment in early 2017.

Figure 4: Total Time Spent by IPHTP Visitors (in Minutes) for Anonymous and Secure Sites, by month, August 2016 through March 2017

Bounce rates are a standard website analytic used to assess user engagement. A bounce rate is the percentage of visitors to a particular website who navigate away from the site after viewing only one page. Very generally, a low bounce rate is desired. Bounce rates need to be explored for the IPHTP as they can be taken out of context.

Figure 5 depicts the bounce rates for the IPHTP default page. Bounce rates for the secure site, (which has many fewer users then the anonymous site) vary considerably over the 8-month period but during the first quarter of calendar year, 2017 have decreased and stabilized in February and March 2017.
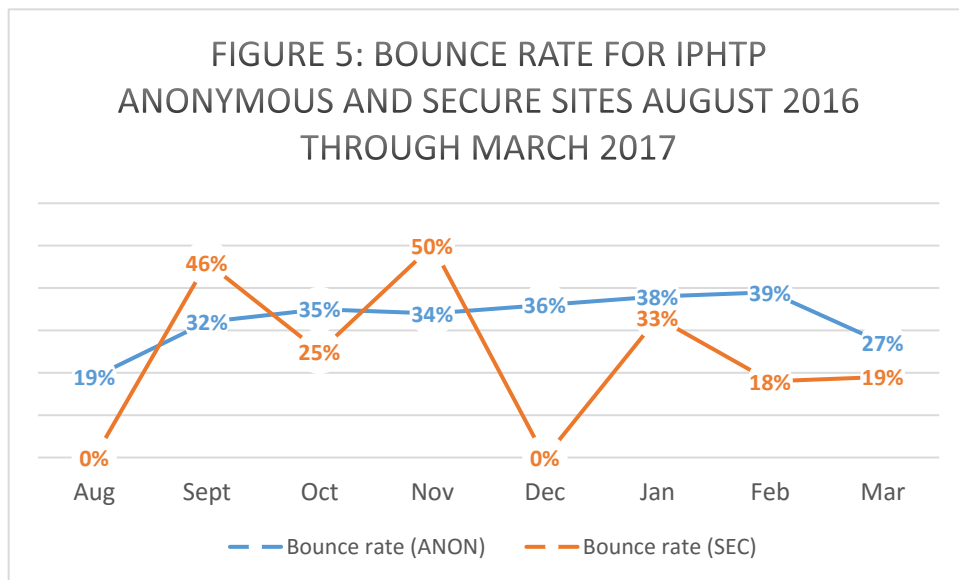
Figure 6 looks at the number of visitors, the time spent by those visitors and the bounce rate percent for users of the general (anonymous) portal. Looking at the 8-month view, the bounce rates for the anonymous site have remained between 30% and 40%. However, in February and March, the number of visitors increased while the time spent and the bounce rates decreased. This could be an indication that users are navigating to the correct page and finding the information that they need, easier. Reviewing the website analytics monthly and annotating when key training or outreach activities have occurred will be important to determine if interventions are successful as the IPHTP expands and users increase.

FIGURE 5: BOUNCE RATE FOR IPHTP ANONYMOUS AND SECURE SITES AUGUST 2016 THROUGH MARCH 2017

Figure 6: IPHTP unique visitors, time spent (in minutes) and bounce rate % for August 2016 through March 2017
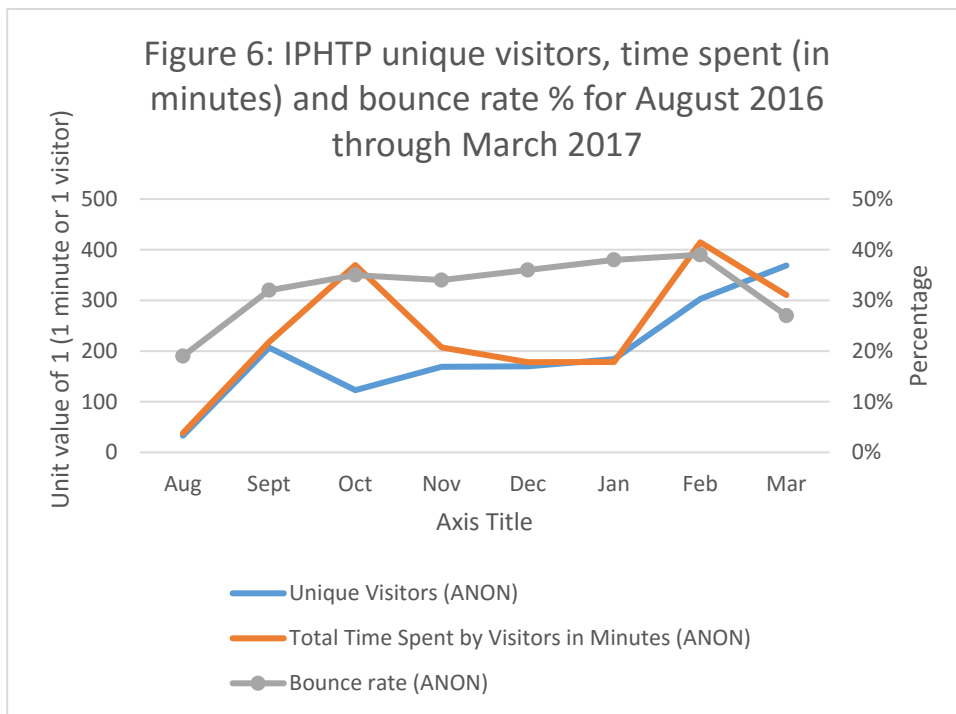
Knowledge and Use of Portal

IIPHRP assessed stakeholder's knowledge and use of the IPHTP through surveys, interviews and focus groups. Among users who had prior knowledge of the portal, we wanted to learn how they became aware of the portal to better understand how to inform more users of the portal's existence in the future. Additionally, information was collected from users related to how well they were able to navigate the website and if they felt, they had the expertise to use the portal. Findings are summarized below.

Findings from various user groups

Knowledge and use of the portal varied substantially. The majority of individuals interviewed in focus group settings or phone interviews (both CBS and IDPHP) were not aware of the portal. Many of the focus group participants reported completing the pre-meeting assignment was the first time they extracted data from the portal.

Interestingly, 49% of the CBS surveyed reported that they have utilized the data portal. A majority of users who access the IPHTP utilize it annually (45% of survey respondents) or quarterly (40% of survey respondents). Yet, survey results revealed a majority of CBS survey respondents provide public health data at least monthly for internal and external purposes, which indicates they are using another data source to obtain and disseminate data.

A majority of survey respondents from both the CBS and IDPHP groups reported they learned of the portal through various sources of outreach but the most common for both groups was through IDPH staff, meetings and presentations.

Figure 7: CBS and IDPHP learned about the IPHTP through the following outreach methods
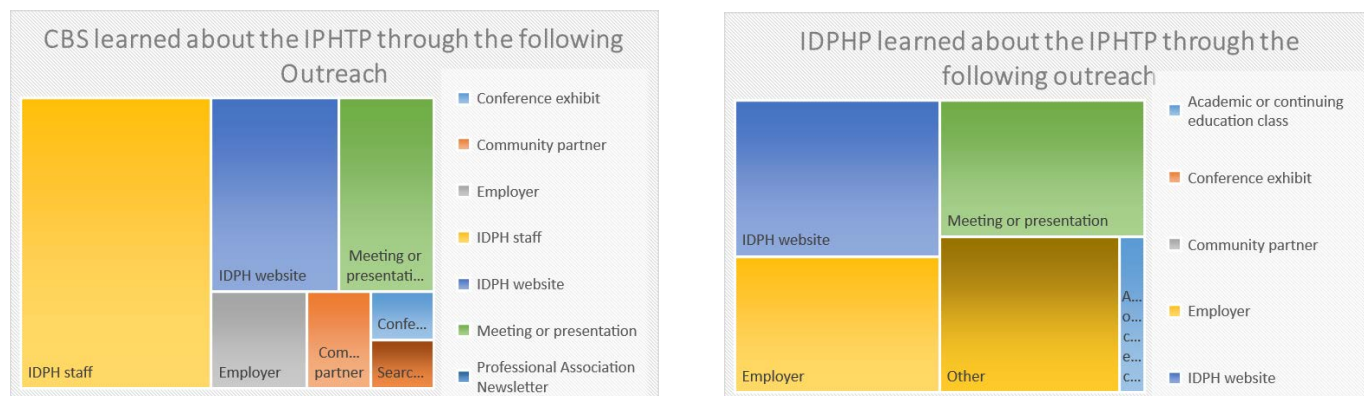
Survey respondents have a range of computer technical skills, but overwhelming (90%) felt they personally have the skills necessary to effectively use the portal. On a 1-10 scale, respondents reported ease of use as 5 or above (with 10 being the highest score). This assessment did not measure computing abilities nor did it ask about comfort using the internet, excel, interactive web based data sites etc. The user simply indicated they had the skills they felt were sufficient to use the IPHTP.
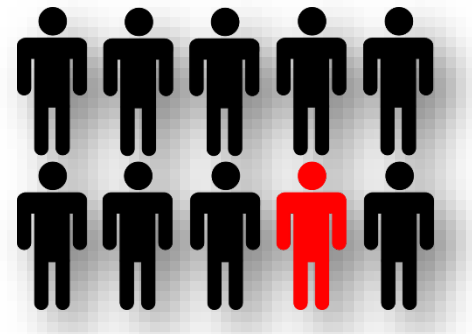

Figure 8: 90% of respondents feel they have the skills necessary to effectively use the IPHTP

Focus group responses indicated that users want additional data in the portal, which would make the IPHTP more useful to them. For example, it was stated that the inclusion of local program data, or additional statewide data on pertinent critical topics such as mental health, opioid use, social determinants of health and obesity would increase the usefulness of the portal.

Respondents in both groups were asked if they felt the information contained in the portal is useful to them. Users from both groups rate the data's usefulness from 4-10 with a mean for both groups in the range of 6.7 on a scale from 1-10 with 10 being the highest score.

Figure 9: CBS – How useful is the data in the IPHTP? Mean of all respondents on 10-point scale

6.71

Figure 10: IDPHP – How useful is the data in the IPHTP? Mean of all respondents on a 10-point scale

6.72
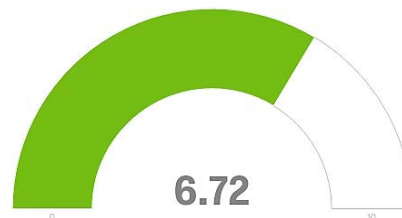
Overall users report they found the portal easy to navigate. Of those who utilize the portal, the majority of the data users access the portal to obtain data for reports, grants and need-based assessments.

Summary of Strength/Weakness/Opportunities

A major strength of the portal is the online accessibility of public health data. Low utilization of this resource is potentially the result of poor visibility of the portal. There are many opportunities to increase awareness of this resource among public health stakeholders statewide.

Stakeholders were asked to suggest methods of increasing the visibility of the portal during interviews. Overall suggestions were related to improving search results for public health data via internet search engines such as Google and advertising the portal through various mechanisms targeted at users and public health organizations in the state.

Currently when searching for data that is housed in the portal, internet search engines do not return results that would direct users to the portal. For example using the search term "hospitalization of asthma in Iowa" users are directed to www.data.gov websites. Navigation of the government websites eventually direct the user to the IPHTP.

Another opportunity to increase awareness includes advertising the portal at meetings and conferences attended by public health stakeholders. Offering hands on workshops, presentations and written materials should be part of the marketing strategy.

Stakeholders suggested social media would increase the portal's visibility. Utilizing a combination of social media platforms such as Facebook, Twitter, blog or newsletters would direct more users to the portal.

> *"I remember receiving training about the portal but my job is so demanding that I don't have time to go in there and look around to get what I need. I forgot this resource existed."*
>
> \- Interview Participant

Users of the portal reported they are not aware of when data is added or updated. The establishment of user accounts would allow individuals to provide email addresses and opt in to communication from the portal via email. Social media pages would give the portal a platform to reach users and advertise updates. Additionally social media pages would give users an opportunity to engage with the portal to provide feedback on their data needs and emerging public health issues.

> *"Wow – I was not aware this resource existed. This should be advertised better – it should be a reminder at every IDPH meeting or presentation!*
>
> \- Interview Participant

Targeting users by interest area may increase use of the portal. For example, yearly newsletters, showcasing maternal and child health (MCH) data and trends targeted at stakeholders in that field, would encourage those specific users to explore the MCH data on the portal. Since the portal historically was focused on environmental public health data, it is important to send targeted messages by topic area to users to inform potential users of the diverse datasets available.

Stakeholder Needs

Although this entire report provides information on the needs of stakeholders, this section focuses on stakeholder needs as the field of public health evolves and issues emerge. The assessment team collected information specifically from CBS and IDPHP regarding the type of data and tools they need within their public health roles. To gain a better understanding of data needs, we asked who was requesting data, how often data requests were made and the type of trainings users' desire.

Findings from various user groups

Stakeholders need to be more knowledgeable of the portal. As stated above many who participated in this assessment were not aware of the portal, and of those who were aware, the majority had not really explored the portal until they were asked to complete a 10-minute focus group homework exercise as part of this assessment. IDPH has engaged in activities to promote the awareness and use of the IPHTP but there is a workforce turnover issue among the CBS that may be affecting this outreach, which means continual outreach is needed.

Respondents to the survey indicate that they are being asked questions about public health data. Those questions come from a broad range of inquisitors as depicted in Figure 11. Users of the portal benefit

from the accessibility and scope of the data available and can use the information to answer questions, and can refer people to the portal to obtain additional information if they are aware of the portal and the rich data it contains. Data requests are sometimes linked to hot topics in the media. Sometimes they are generated due to grant writing activities or legislative questions.

Figure11: Who asks for public health data?
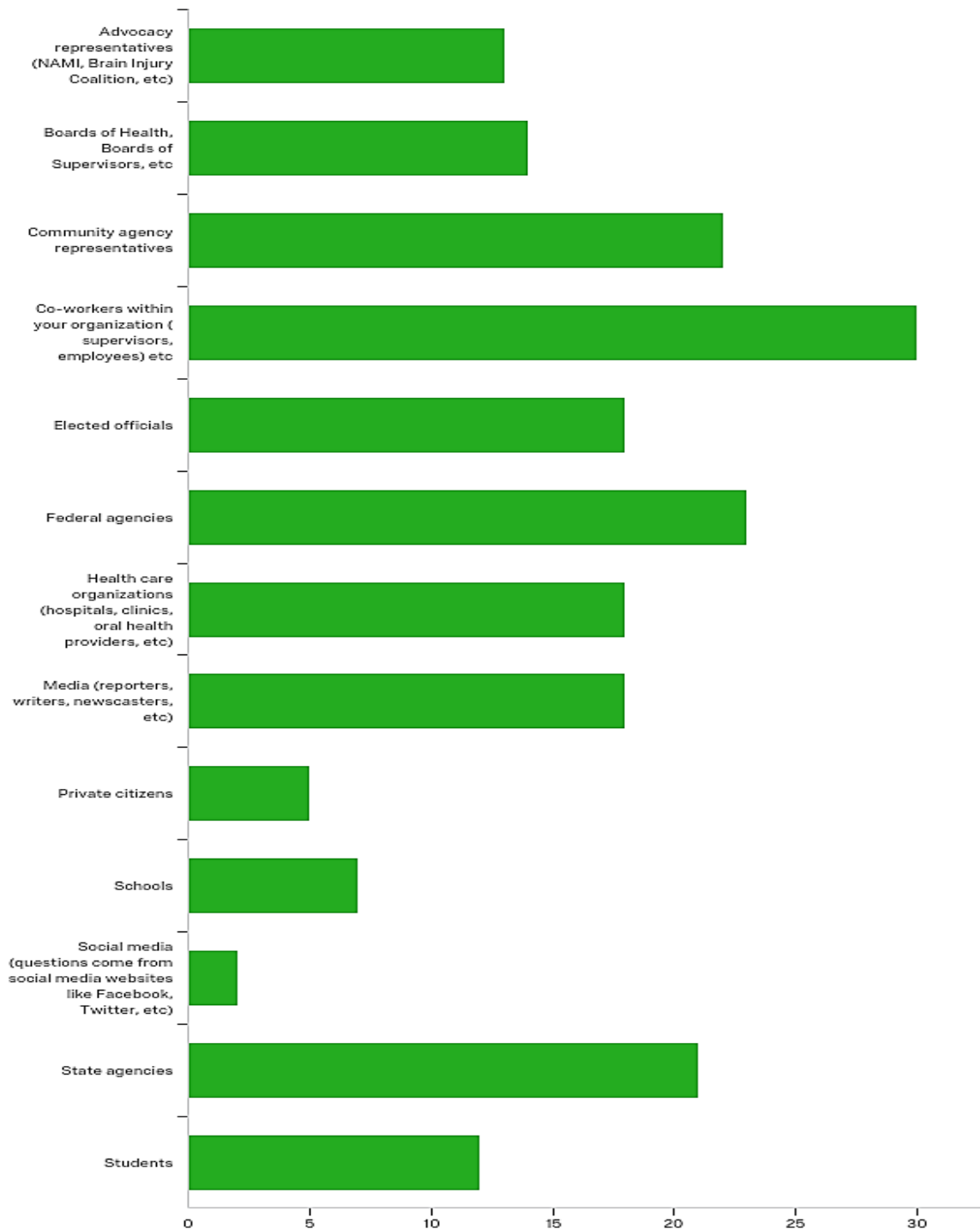
In addition, a review of the data requests that are received by the IDPH, reveal that questions regarding data are broad in scope. Topics ranged from requesting the number of deaths by suicide for specific counties, to ER visits across the state, to requesting data on Parkinson's disease or the number of air ambulance rides for the year. These requests come from internal IDPH staff, from CBS and from elected officials. From January 2015 - March 2017 a total of 63 requests were received by IDPH and documented. Of those, over half were responded to using the IPOP data set. It is highly likely that there were many more data requests but these are the ones that were documented. It would be useful for IDPH to put into place an agency wide data request documentation process so the number of requests and the types of data requested can be regularly reviewed.

As previously discussed, stakeholder needs evolve with emerging public health issues, users expressed concern that specific subgroups/populations, and topics are not represented in the IPHTP data. For example, the portal does not include data specifically for LGBTQ groups, immigrants and refugees. Requests for an expansion of topic areas represented on the portal were also made. Topic areas to expand include BRFSS results, motor vehicle and criminal statistic data, mental health, obesity, nutrition, substance use, social determinants of health, and Ages and Stages Questionnaire (ASQ) developmental data.

Integration of public health data is becoming increasingly important. Users expressed it would be of great value to have the ability to link the multiple datasets available on the tracking portal. For example, linking environmental data to health outcomes would enrich understanding of environmental determinants of health in the state of Iowa.

Users further indicated they need training to use the IPHTP and demonstrations to understand what data is available and what the limitations are. The training should include an overview of the data available, the functionality and the capabilities of the portal. Once trained, the users need reminding through prompts to utilize the IPHTP regularly. Suggestions about how to continually draw people into the portal through social media campaigns and maintaining a list serve to "ping" users when things are updated on the portal were suggested.

Users also need "booster training" as they use the portal infrequently and for some, the portal is not intuitive. The preferred "booster training" method most often desired by participants was to have short (30 - 45 second) videos on the website that describe how to do specific activities within the portal. Another example was to provide helpful hints by creating short phrases that appear when a user hovers over an element.

During focus groups and individual interviews, participants described technical difficulties they had while using the portal. One public health office did not have Excel installed on key user computers; therefore, they were unable to extract data. Some respondents described technical issues because the browser on their computer was outdated. During three focus/interviews with CBS, the issue of not having the bandwidth to download the data came up. Stakeholders would benefit from having a one-page list of helpful hints regarding technical issues and a list of computer and broadband specifications to make the portal experience the most effective. This list should include things like the required software program (excel or some comparable program), minimum amounts of hard drive memory needed, the names and versions of compatible internet browsers and the minimum bandwidth required to provide the best potential user experience prior to the user accessing the portal.

Summary of Strength/Weakness/Opportunities

The ability to subset data by subgroups is important to assess public health needs and disparities by group. A strength of the portal is the ability to subset data by age and sex for a majority of the datasets available. Users of the portal reported a limitation of subsetting by predetermined categories on the portal. For example, in regards to the Top Causes of Death report, the age categories are 0-18, 19-64 and 65 and older. Respondents reported the age categories are too broad. The data would be enriched if users could select specific ages. Stakeholders report the ability to filter data by race, ethnicity, payer status, zip code of residence and sexual orientation is desired.

There is a diverse range of public health datasets available on the portal, which was referred to as one of the major strengths. A limitation of the datasets is that they are siloed by topic area and users cannot link the datasets. For example, users may have interest in understanding how environmental factors such as air quality might affect outcomes such as respiratory diseases. Users reported having the ability to link datasets across topic areas would greatly increase the utility of the data portal.

Participants were asked to provide emerging health issues in their fields. Common emerging issues were related to substance abuse specifically opioid use, nutrition, obesity, sexually transmitted diseases, mental health and social determinants of health. In addition, data on special populations including immigrant refugee and LGBT groups is needed.

A threat to the IPHTP is that for many users, it is not perceived as intuitive and users who go to a site but do not know how to use it will often not return. Currently, there is a training video on the IPHTP and there is some hover capacity to help direct the user, but there is room for improvement to help users engage and successfully navigate the portal. Information about technical specifications and a short "helpful hints" document provided on the home page could be helpful strategies to positively impact user experience. The addition of a support person, who can be contacted by phone in real time, to answer questions and to provide guidance would be a helpful resource.

Consuming Data

The assessment team collected information from respondents on how they are consuming (receiving) public health data and how they like to use the data. To understand if there is a gap in what type of data is offered on the portal, users were asked what sources they use to obtain needed data. Additionally, respondents were asked about their preferred data formats for analysis and if they are asked to calculate statistics in their current role. Information was further collected on how often data is being used by topic area, such as demographic data, environmental data or data related to immunizations or communicable diseases.

Findings from various user groups

Respondents were asked about their use of data including how they want to receive (consume) data. In addition, respondents were asked about the ideal timeliness of data and what resources they have available to effectively analyze the data they receive. Of the CBS group, 56% indicate they <u>do not</u> have the needed resources to analyze raw data. Many users indicate they prefer raw data because they want the ability to share "real numbers" and not estimates, however, CBS do not have access to trained statisticians and other resources who can help them understand the data. IDPHP indicate (66% of those who responded) they do have resources to properly analyze data including epidemiologists and trained data analytics personnel who are available to assist them.

Figure 12:   CBS Respondents   IDPH Respondents
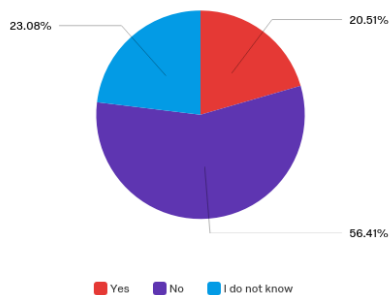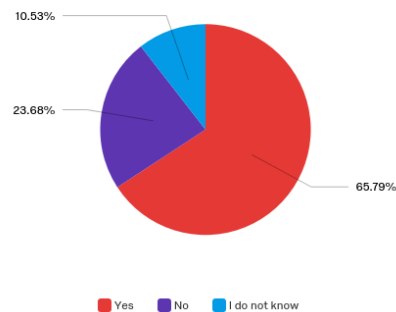
Does your agency have the resources and expertise to analyze raw data?

CBS reported they "sometimes" are asked to calculate statistics from the data they use, although 66% of the respondents reported their agency does not have a person trained in data analysis. Furthermore, a majority of the CBS reported they do not have the resources or expertise to analyze raw data. A majority of the organizations report their agencies prefer to have a combination of raw and pre-analyzed data. Essentially, both groups prefer data that is interactive and has customizable reports in addition to raw data.

Figure 13: In what form would you like to view data?
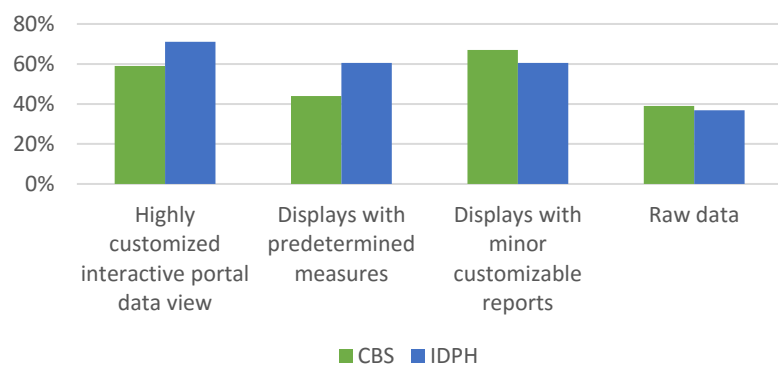
Respondents were asked what data sets they use and how often they use them. Figure 14 and Figure 15 provide a breakdown of the information collected from CBS and IDPHP respective to data sets used. The same information in table form is provided in Table 3 and Table 4. Respondents were asked what data they would like that is not currently available to them. Both groups indicate they would like to have data for subgroups and special populations which is not currently available to them. They also would like social determinants of health data and hospitalization data which is also currently not available to them. In addition, health outcomes data was requested. During focus groups participants shared that health outcome data that links to other data sets would be helpful. For example, participants want to better understand how the local environment (air quality) may be impacting health outcomes related to asthma and COPD for people in their communities, or ad another example, if people with mental health diagnosis are enrolled in available services and supports that positively impact their stability and well being.

Figure 14 (Respondents = CBS) What data do you use and how often do you use it? Are there data that you need that is not available?

No, I do not use these data
- 9.52%
- 9.52%
- 14.29%
- 19.05%
- 28.57%
- 4.76%
- 14.29%

Yes, I use these data monthly
- 4.29%
- 12.86%
- 22.86%
- 17.14%
- 8.57%
- 5.71%
- 14.29%
- 10.00%
- 4.29%

Yes, I use these data quarterly
- 13.73%
- 7.84%
- 11.76%
- 11.76%
- 7.84%
- 19.61%
- 5.88%
- 7.84%
- 13.73%

Yes, I use these data semi-annually
- 10.64%
- 8.51%
- 4.26%
- 12.77%
- 10.64%
- 14.89%
- 17.02%
- 10.64%
- 10.64%

Yes, I use these data annually
- 9.73%
- 12.39%
- 3.54%
- 7.08%
- 14.16%
- 13.27%
- 12.39%
- 13.27%
- 14.16%

I would like to use these data but these data are not available
- 33.33%
- 18.52%
- 11.11%
- 11.11%
- 14.81%
- 3.70%
- 7.41%

Legend:
- Demographic data
- Environmental data
- Health behaviors
- Health outcomes
- Hospitalization data
- Immunizations
- Reportable disease
- Social determinants of health
- Subgroups/ special populations

Figure 15 (Respondents = IDPHP) What data do you use and how often do you use it?

No, I do not use these data

- 2.20%
- 14.29%
- 7.69%
- 4.40%
- 13.19%
- 20.88%
- 20.88%
- 10.99%
- 5.49%

Yes, I use these data monthly

- 21.05%
- 7.89%
- 11.84%
- 10.53%
- 6.58%
- 6.58%
- 10.53%
- 9.21%
- 15.79%

Yes, I use these data quarterly

- 15.79%
- 10.53%
- 21.05%
- 13.16%
- 5.26%
- 7.89%
- 2.63%
- 15.79%
- 7.89%

Yes, I use these data semi-annually

- 18.18%
- 6.06%
- 12.12%
- 21.21%
- 12.12%
- 3.03%
- 6.06%
- 9.09%
- 12.12%

Yes, I use these data annually

- 10.77%
- 10.77%
- 9.23%
- 13.85%
- 13.85%
- 10.77%
- 6.15%
- 9.23%
- 15.38%

I would like to use these data but these data are not available

- 16.67%
- 25.00%
- 16.67%
- 25.00%
- 16.67%

Legend:
- Demographic data
- Environmental data
- Health behaviors
- Health outcomes
- Hospitalization data
- Immunizations
- Reportable disease
- Social determinants of health
- Subgroups/ special populations

Table 3: IDPHP - "Does your program use data listed below? Please indicate the interval of use for each data group listed"

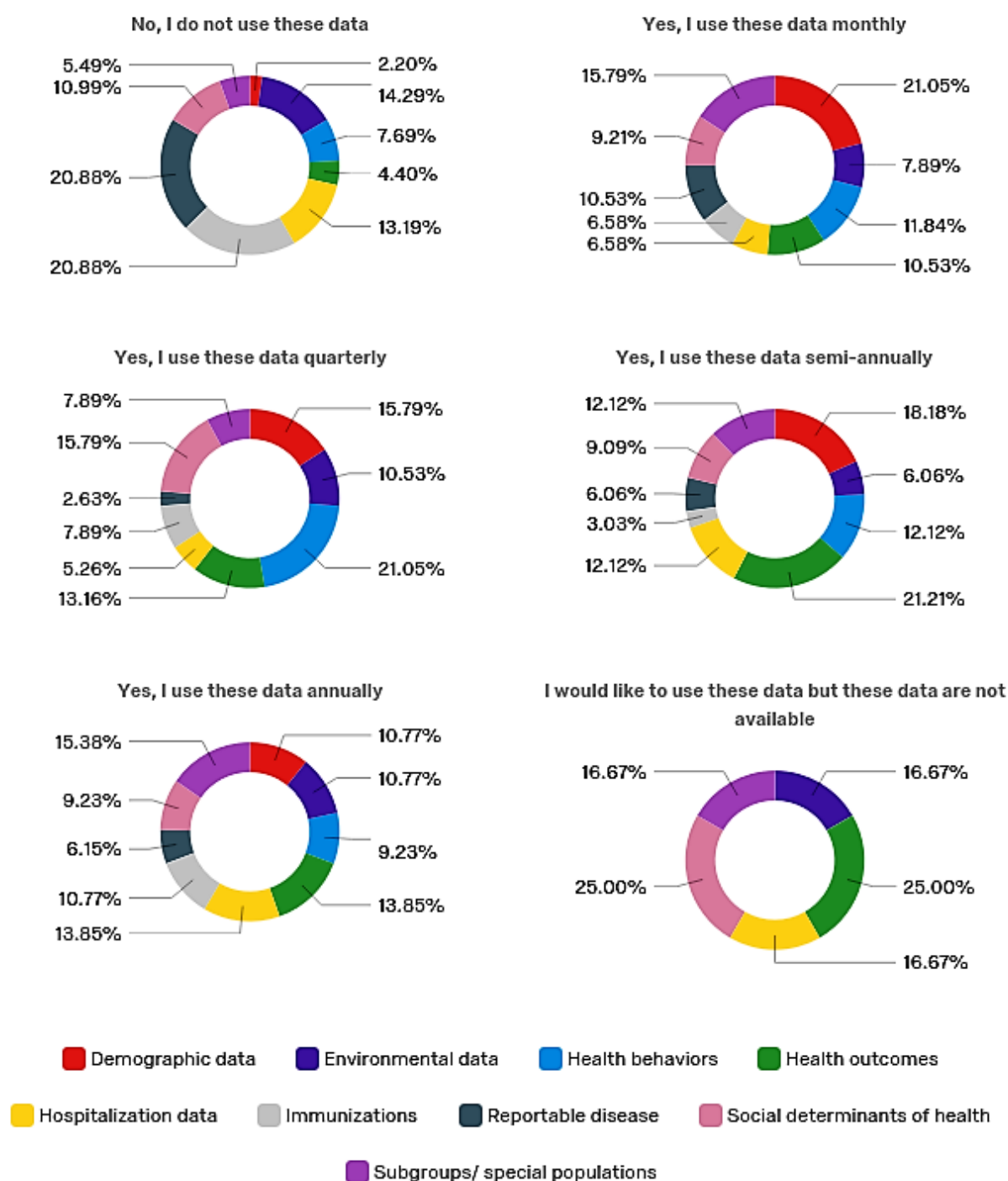| Data	No, I do not use these data	Yes, I use these data monthly	Yes, I use these data quarterly	Yes, I use these data semi-annually	Yes, I use these data annually	I would like to use these data but these data are not available
Demographic data	9.52%	22.86%	11.76%	12.77%	6.19%	0.00%
Environmental data	61.90%	8.57%	7.84%	4.26%	6.19%	7.41%
Health behaviors	33.33%	12.86%	15.69%	8.51%	5.31%	0.00%
Health outcomes	19.05%	11.43%	9.80%	14.89%	7.96%	11.11%
Hospitalization data	57.14%	7.14%	3.92%	8.51%	7.96%	7.41%
Immunizations	90.48%	7.14%	5.88%	2.13%	6.19%	0.00%
Reportable disease	90.48%	11.43%	1.96%	4.26%	3.54%	0.00%
Social determinants of health	47.62%	10.00%	11.76%	6.38%	5.31%	11.11%
Subgroups/ special populations	23.81%	17.14%	5.88%	8.51%	8.85%	7.41%

Table 4: CBS - "Does your program use data listed below? Please indicate the interval of use for each data group listed"

Data	No, I do not use these data	Yes, I use these data monthly	Yes, I use these data quarterly	Yes, I use these data semi-annually	Yes, I use these data annually	I would like to use these data but these data are not available
Demographic data	0.00%	8.57%	19.61%	14.89%	13.27%	0.00%
Environmental data	28.57%	5.71%	5.88%	17.02%	12.39%	0.00%
Health behaviors	4.76%	14.29%	7.84%	10.64%	13.27%	11.11%
Health outcomes	0.00%	10.00%	13.73%	10.64%	14.16%	11.11%
Hospitalization data	14.29%	4.29%	7.84%	10.64%	14.16%	14.81%
Immunizations	19.05%	17.14%	11.76%	12.77%	7.08%	3.70%
Reportable disease	14.29%	22.86%	11.76%	4.26%	3.54%	7.41%
Social determinants of health	9.52%	12.86%	7.84%	8.51%	12.39%	18.52%
Subgroups/ special populations	9.52%	4.29%	13.73%	10.64%	9.73%	33.33%

CBS reported they compare their data internally across demographic groups, to county level data, to state level data and national benchmarks. Timeliness of public health data was a concern of many respondents. In the survey and in focus group sessions concerns related to the lag time of when data is released and requests for *real time* data were discussed. The availability of specific datasets and topics were also discussed as a limitation of data sources.

When asked if they would like to receive data more timely if it meant that data would be preliminary, many users indicated they would accept preliminary data if it means more timely reception and quality could be maintained. See Figure 16 for details

Users report that they compare their data to other programs and to national benchmarks as well as across counties. What was not clear is what data they are comparing. Each respondent had unique reasons for wanting to compare data for example, some want to indicate how their program is doing in comparison to other programs especially for grants, and other funding opportunities. Others want to know if their county is doing better than other counties. Summary data from the survey can be found in Figure 17.

Figure 16: Would you like to receive data in a more timely manner if it meant data were preliminary?

Focus groups and individual interviews revealed that users want the ability to compare program data. Some users indicate that this is not possible because the metrics are not standardized. For example, one statewide program identified that the metric used to identify low birthweight babies for Iowa, is not the same metric that is used nationally. For programs that do not collect nationally recognized and standard metrics, through vetted data collection processes, a data collection issue will need to be remedied before making data available for comparison purposes on the portal.

Figure 17: Do you compare data from your program (s) to other programs(s)?

Understanding differences between surveillance systems, which provide outcome data and program data collections systems, which provide impact and process data, is important. The data from the various systems has different purposes and therefore, generally, cannot be compared. This common misunderstanding should be further investigated, as it does seem that

some users are comparing surveillance data to program data and vice versa. This could be a professional development, continuing education opportunity for the public health workforce.

Summary of Strength/Weakness/Opportunities

There were several strengths of the IPHTP cited which includes that there is specific information on the portal and some felt the information was easy to find. For example, it was stated that information regarding lead poisoning was useful and easy to understand. Overwhelmingly, focus group participants feel the data on the portal is trusted and credible. Some participants described tobacco data as readily available and easy to understand on the IPHTP however, there is limited information related to tobacco use (limited information can be found in the COPD and asthma areas) This is concerning because users do not know where they are getting their data and some could be confusing the IPHTP with other IDPH websites.

There are many opportunities to improve the portal to make it more desirable from a user's point of view. Improvements can be made regarding functionality by providing clearer instructions on the site, specifically instructions on how to extract the data, and labeling the information so it makes sense to a broad array of users. Simple additions, such as creating "hints while you hover" or providing a button on each page that takes you back to the home page would be helpful.

> *"I want what I want, when I want it" - if I could go to the search engine, type in my county and type in for example,"% of diabetics" and I could get it - that would be helpful!"*
>
> - Focus group participant

In addition, focus group participants indicated that some labeling in the portal is confusing; heart disease versus heart attack was one mentioned example. Some respondents felt there is "lots of clicking required" to get to the data. It was also mentioned that the portal might confuse "general users" as it contains much analytical jargon.

Other opportunities such as adding data with the ability to overlay data from multiple sets including a mapping function and including infographics for the most used data are enhancements that users recommended that will be resource intensive.

A threat to the IPHTP is that respondents who have accessed it and did not get what they were looking for are less likely to return to the portal. One theme that was consistent from the CBS is that time is very limited so they search the data sources that they are familiar with and that are easy to use in order to obtain the data they need quickly. If a site is too cumbersome, or too complicated, they will not return to the site. Some participants stated that they had been to the IPHTP and they did not find it intuitive, so they did not return to use it again.   Users want a "google like" search engine as that is familiar and therefore easy for them to navigate.

There is an opportunity for IDPH to develop a specific IPHTP engagement and ongoing training plan to increase the use of the portal. The plan should involve planned specific activities that draw users to the site. There were many ideas generated, for example, providing content for regular social media blitzes that highlight some of the data in the IPHTP, providing regular content to the various statewide program newsletters, providing content for the IDPH website and managing a list serve that prompts members if changes have been made to the portal.

Overwhelmingly, there is a distinct need and interest in having data visuals. Users want a site that is easy to use but that also has meaningful visualizations that can help them share data and form it into a

correct and compelling story. They want maps, word clouds, dot plots, infographics, trend charts, fact sheets and linkages to other vibrant data sources.

There is a need for continual training to help the public health workforce utilize the data that is available appropriately for the public health functions of surveillance, assessment and policy. Training to help users understand the data purpose and using it for the purpose that it was intended is important, as more data is available.

Data Collection

CBS and IDPHP were asked if they are involved in data collection activities. Among respondents who collect data, further information was gathered regarding who creates the data collection instruments. Respondents described their need for certain local data that are not available to them.

Findings from various populations

A majority of survey respondents reported they participate in data collection activities funded by IDPH, their own agencies and community partners (See Fig 18-19). The data collection instruments are mostly created by IDPH, agency staff and federal agencies. Largely, these data collection tools are brief surveys. They are reported as raw counts and percentages without the benefit of data evaluation experts or analytics. These data collection processes are typically developed for specific grants or based on funder requirements.
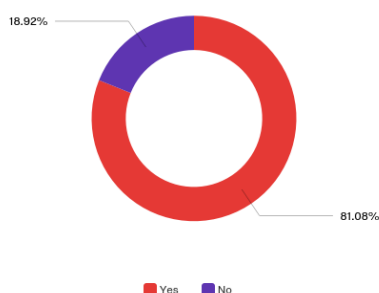

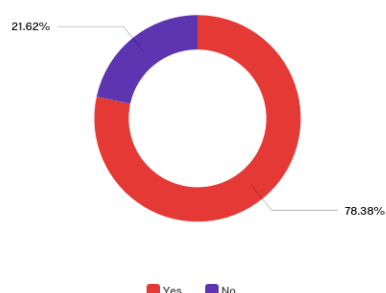**Fig 18: Percentage of IDPHP Involved in data collection**

Fig 19: Percentage of CBS involved in data collection

Some users' report they participate in local community needs assessment activities and community development projects that require local data to be collected. For community based agencies data is collected to provide information to state and federal agencies stakeholders, boards of directors and customers. See Figure 20 for information about who funds data collection activities, most report that their own agency is funding the data collection, which indicates they are not getting needed data from other sources.

Many respondents in focus groups expressed the need for data related to public health topics that are prevalent in the media. For example, information about the number of opioid overdoses

Figure 20: Who funds or mandates data collection activities for CBS?
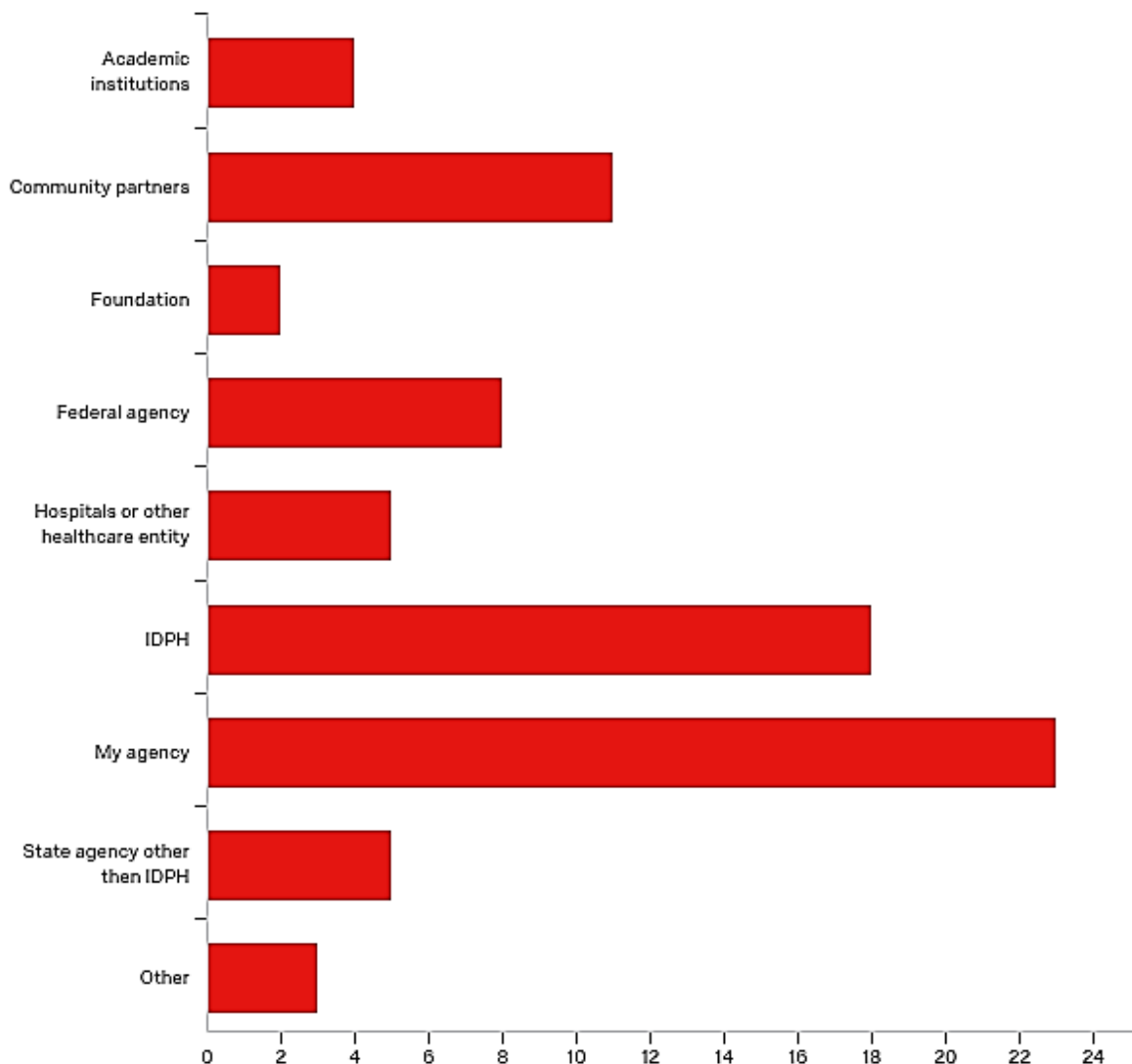
has been requested due to the increased media coverage of opioid use. In another example, some folks expressed a need for more information about the prevalence e of chronic mental health conditions in their county due to recent administrative cuts to services for the population.

Summary of Strength/Weakness/Opportunities

Respondents of CBS in focus groups and in interviews indicated that they provide IDPH with a great deal of data related to program activities funded by IDPH or the federal government. They desire to have that data represented and retrievable in some way on the portal. They are eager to share their data in some format and are supportive of making the data publically available, if confidentially protections are met.

A common theme in both the surveys and interviews was the need for more data. As indicated in the survey, many respondents are generating their own data. Additional data sets recommended include

mental health data, opioid use, suicide rates, language barriers, obesity, health disparities, information on nutrition, developmental data from the ASQ, youth violence, radon data before and after mitigation, STD's, gambling, and quality of life indicators.

In one CBS focus group, it was explicitly described that there is an opportunity for the portal to vastly expand what is currently available to users, by including the large number of data sets collected by IDPHP and CBS. IDPH develops and collects much data and users want to see the data displayed on the portal. One example provided is the Community Needs Assessments. Local health departments work hard to collect needs assessment data on a regular basis. This data, if standardized across the health departments, could be put in the portal for others to access. If standardized – counties could compare their needs and interventions to other counties. This would help to promote the portal as a useful tool. This would be a large undertaking that would include the need for standardized needs assessment data collection tools, training, and staff resources to accomplish. In addition, there would be increased need for training regarding confidentiality protections, especially for data collected through qualitative processes.

Dissemination of Data

Prior to this assessment, it was not clear how CBS and IDPHP share public health data. Respondents provided insights on who they share data with and the platforms they use to disseminate data. Barriers to sharing public health data were also discussed in interviews and focus groups. Discussions on how users contextualize data and what their emerging needs are helped the assessment team understand how stakeholders disseminate data.

Findings from various user groups

Over 90% of CBS and IDPHP survey respondents reported they disseminate public health data outside of their agency. CBS and IDPHP share data through informational meetings, website postings, and print documents as well as through social media postings and presentations at conferences. Respondents reported data requests are made regularly for internal and external purposes.

Almost 50% of CBS respondents report they provide public health data for internal purposes at least monthly and 76% provide data outside their organization at least monthly. IDPH delegates are also responding to requests from within their organization, community & state agencies as well as federal agencies.

DISSEMINATION METHODS FOR CBS AND IDPHP

CBS / IDPHP

Method	CBS	IDPHP
MEETINGS	89%	84%
NEWSLETT...	31%	30%
PRESENTA...	40%	76%
PRINT...	51%	68%
SOCIAL...	34%	27%
WEBSITE...	49%	76%
OTHER	0%	5%
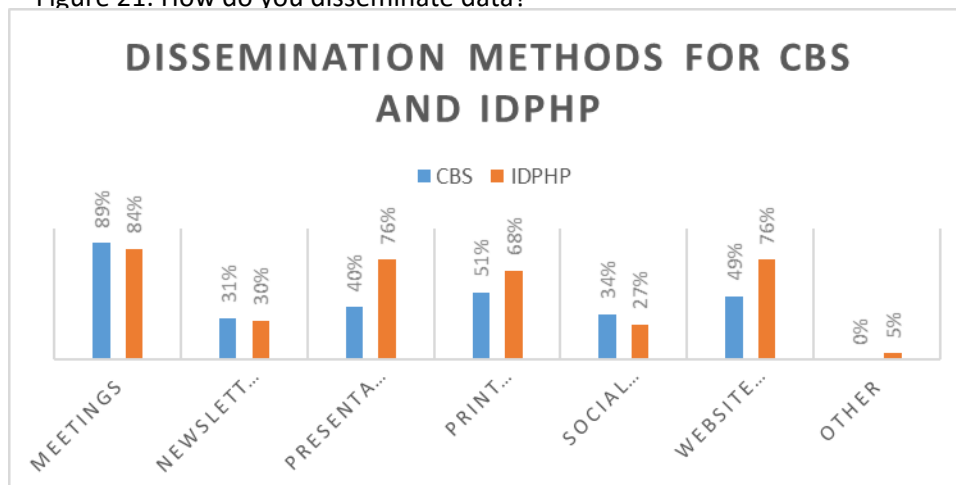
Approximately 70% of IDPH respondents reported they are asked to provide public health data within their organization at least monthly and 58% of respondents provide data to outside organizations at least monthly. Information is provided in meetings, through newsletters, in presentations about programs and health activities, on social media sites like Facebook and twitter and on agency websites.

Both IDPH delegates and community health are asked by a variety of organizations for public health data. A majority of data requests of IDPH delegates are internal, federal agencies, and community agency representatives. A majority of data requests from CBS are from community agency representatives, boards of health, internal, and the media. When providing data 77.5% of IDPH delegates and 68.29% of community health are asked to contextualize the data they are providing.

Respondents indicate they need help telling a deeper, more compelling story with the data that is available to them. They want more then counts that have increased or decreased but they want to provide meaningful information to their customers. Several respondents indicated that they are concerned that the "flavor of the day" is what gets noticed regarding data. For example, the media indicates we have an opioid death epidemic, yet more people die each day from other substances, or from injuries or from other chronic diseases. "Currently, we don't have the capability to look across the data and analyze the findings to share emerging trend data in real time" one focus group participant stated.

> "The ability to tell a compelling story in a meaningful way using communication tools such as infographics should be prioritized to better make evidenced based program decisions"
>
> -Focus group participant

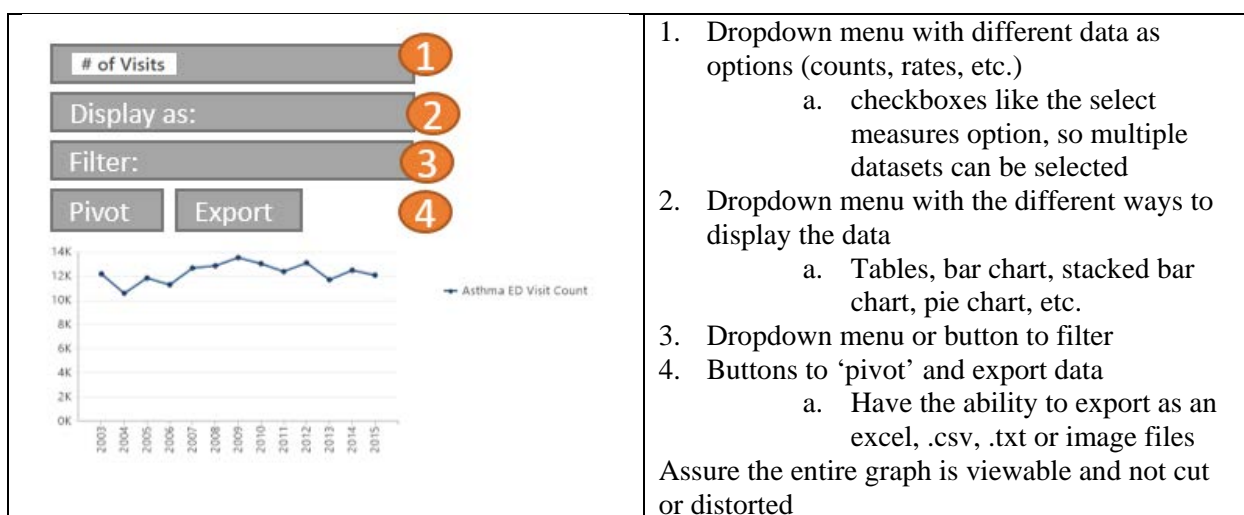Both groups of respondents are faced with the challenge of emerging data trends and providing meaningful information at a state and local level. Respondents are especially interested in social determinants of health, substance abuse, obesity, nutrition and mental health. Table 5 fully summarizes the emerging issues and data requests made of both IDPHP and CBS during focus group and interview sessions.

Table 5: Emerging Issues data requests made by CBS and IDPHP during assessment process	
Environmental	• Blood Lead Testing Rates • Lead in Water • Bed Bugs • Water Quality • Water Fluoridation
Health Care Utilization	• Dental Care • Vaccinations • Mental Health Services • Rate of Insured, Uninsured and Underinsured • Quality of Care
Communicable Disease	• Sexually Transmitted Diseases • HIV • Influenza • Disease Outbreaks • Zika Virus • Acute Infectious Disease
Substance use and addiction	• Opioid Use • Overdose • Mortality/morbidity • Substance Abuse • Smoking • Electronic Cigarettes • Tobacco Prevention and Cessation • Gambling
Maternal and Child Health	• Birth Rates • Childhood Obesity • Child Abuse • Developmental Screening • School Readiness • Child Burial Grant • Maternal Depression • Newborn Screening and early intervention
Chronic Disease	• Diabetes • Obesity • Cardiovascular Conditions • Mental Health including child mental health
Other Emerging Issues	• Adverse Childhood Experience (ACE) data • Disability Health Equity • Occupational Safety & Health • Oral Health • Fireworks • Brain Injury • Access to Electronic Health Data • Poverty

Summary of Strength/Weakness/Opportunities

Respondents are frequently asked to provide and contextualize data to a variety of stakeholders. In the data consumption section of this report, survey results revealed a majority of respondents are only accessing the portal on an annual basis, however they report providing data to stakeholders much more frequently. This indicates their data is being from resources outside of the portal. The portal has the potential to be utilized by all users more frequently, as there is demonstrated need for data. One respondent took the time to provide a sample visual and description of a process that could make the functionality of the portal easier for users when building tables and charts in the portal for specific data sets. See figure 22 below. In addition, the desire if for the ability to export those charts and graphs from the portal to a document. Ideally, the data could be exported as an image, with the chart intact or as a data file.

Figure 22: Sample description and desired functionality to build charts and graphs in the portal

# of Visits ①	1. Dropdown menu with different data as options (counts, rates, etc.) a. checkboxes like the select measures option, so multiple datasets can be selected
Display as: ②	2. Dropdown menu with the different ways to display the data a. Tables, bar chart, stacked bar chart, pie chart, etc.
Filter: ③	3. Dropdown menu or button to filter
Pivot Export ④	4. Buttons to 'pivot' and export data a. Have the ability to export as an excel, .csv, .txt or image files
Asthma ED Visit Count	Assure the entire graph is viewable and not cut or distorted

Because of the increasing need to contextualize data, requests were made for tools to help generate maps and infographics. Developing infographic templates for users to utilize to contextualize their data would enable users to better disseminate their data. Users also value the ability to compare county data to other counties, state wide and to national data. The development of a mapping tool where different levels of data can be overlaid would be beneficial for users in contextualizing data.

Data Sources

There are many sources of public health data. To better understand user's needs and how to improve the portal, users were asked what data sources they use the most and what they like about the sources they use. Summarization of these results helps us better understand where to focus efforts for portal improvement.

Findings from various user groups

In addition to the tracking portal, respondents use other data sources. The top three sources of data used by local CBS are US Census Bureau, BRFSS and County Health Rankings. IDPHP delegates reported use of BRFSS, CDC and the tracking portal as their top 3 sources. Survey respondents were asked to describe what they like about the public health data sources they currently use, and what challenges

they perceived when utilizing the data. Figure 23 summarizes the key findings of what makes a data source useful. Overall respondents value easy to use websites with topic specific data that can be used to make county, state and nationwide comparisons.

Fig 23: Summary of what makes public health data sources useful

Website Attributes	Type of Available Data	Use of Data
•Navigation •Understandable •Graphics •Complete datasets •Timely Data •Easy to find •Organized •Contact number for help •Tool guide •Maps •Raw Data •Disease Facts & Treatment •Comprehensive •State level data •Interactive •State Report Card	•County level •Mortality statistics •Top causes of death •Top cases of injury •STD •HIV •Immunizations •Health Rankings •Demographics •Data trends •Behavior •Disability •Contract performance •Maternal and Child Health •Pharmaceutical •Disease outbreak •Substances used •Poverty •Medicaid •Prevalence of attitudes, behaviors and conditions •Tobacco •Breastfeeding •Lead test results with demographics •Sexual health •Wellness data •Prevention Programs and numbers of attendees •Workfore Analysis •PG data	•Cross state comparisons •Apply to Healthy People •Generate own incidence reports •Generate own indicator reports •Come to nation statistics •Adust for demographics when comparing to state and nation level data

There was an expressed need for contact information on the pages of the IPHTP and (and other data sources) so users can contact someone when they have questions or need assistance in accessing data. Additional concern was cited regarding uncertainty pertaining to data sources on the IPHTP. Respondents were not clear where data originates from on some of the IPHTP pages. Repeatedly, users felt there should be more user control on how to break down data by demographics and other factors. If breaking down the data is not possible, an explanation should be provided on the site so users can understand why the limitations are put in place.

Summary of Strength/Weakness/Opportunities

Respondents indicate that the data on the portal is trusted and that they do not have concerns about the quality of data that is provided through the portal. Those who used the portal in the past stated that improvements have been made recently to the portal and those improvements have been helpful.

Survey results provide us with insight on website characteristics that respondents prefer when accessing data in Figure 18. If IDPH utilizes this information, the IPHTP has the potential to be the preferred resource of public health data in the state of Iowa.

Data Sharing Policy and Protection

The portal has a data sharing policy in place. Respondents were questioned on their knowledge of the existence of the policy and if they understand the current policy. Strengths and opportunities regarding the policy were identified based on the findings from these questions.

Findings from various user groups

A large majority of survey respondents are aware that there is a data sharing policy for confidentiality protections. The homepage of the portal identifies the policy, and there is a hot link to view the policy, which includes examples of data use. Once the user navigates away from the home page, the policy is not easily available unless the user goes back to the home page. The link to the policy should be more visible. In addition, between 10-18% (IDPHP vs CBS) of respondents report the policy is unclear.

Summary of Strength/Weakness/Opportunities

There is a need to educate data users on the data sharing policy. While policy information does exist on the first time users' page, it is important to provide this policy throughout the portal, on pages most frequently visited. In addition, for clarity, prior to downloading data, users should indicate through a pop up window they are aware of the policy.

In addition, data protection also involves the user understanding the limits of the data. More training is needed in this arena. Data experts are available at IDPH and at various universities in Iowa, yet many CBS and program level IDPHP indicate that it is difficult to know whom to reach out too.   An opportunity exists to increase interactions between academics and public health program personnel regarding student projects, student recruitment and the ability to develop increased synergies between researchers and public health workers at the local and state level.

Summary of Educator and Legislative Respondents

Educators reported low rates of utilization of the portal for school projects with their students (22.22%) and only 14.29% use the portal for their own research. In public health courses, 100% of the respondents indicated they ask their students to report state level data. They additionally request their students to compare state level data to local level and nationwide data. Raw data is the preferred format (57.14%) followed by data from interactive websites (28.57%). Educators reported they need more data on maternal and child health topics such as breastfeeding and tobacco use data.

Graduate students in a Public Health course completed the focus group exercise and were asked to provide feedback about the portal. Usability of the site was a concern for many students. Students expressed the filter options were difficult to use and switching between health topics was time consuming. Students also discovered you cannot copy and paste or export graphs generated on the portal.

Engagement with Public Health educators has the potential to increase use of the portal and awareness. Since analyzing state data is a major component of public health courses, failure to collaborate with educators would be a missed opportunity. Furthermore, when students graduate and enter the

workforce in public health positions, use of the portal during college has the potential to carry forward in their careers.

Of Iowa legislators who responded to the survey, 26% reported using the IIPHTP portal. Of the respondents who reported using the portal, 50% of them found the portal easy to navigate. Legislators are interested in receiving health statistics and data in aggregate form or through interactive websites. The development of tools to aggregate the data and access infographics contextualizing the data would be an opportunity of the portal to better serve the needs of state legislators and potentially other elected officials.

Recommendations

The IIPHRP developed recommendations based on results from surveys, interviews and focus groups with public health stakeholders in the state of Iowa. In addition, data requests and IPHTP analytics were taken into consideration. The major needs identified in the assessment included awareness, training, expansion of data, improving the user experience and the need for education on the use of public health data. Listed and described below are short term and long-term recommendations gleaned from this assessment.

Short term recommendations

As summarized in the report, users indicated many barriers to use the portal. Short-term recommendations are focused largely on improving the user's experience while accessing the data portal. The first step should include identifying the intended primary user group. Additionally, creating more awareness about the existence of the portal and developing measures that indicate the portal is useful are important next steps. Recommendations are summarized below and listed in a table in Appendix 3. A multidisciplinary user group should prioritize the following recommendations.

- **Develop key indicators of success to effectively measure portal usefulness**. This includes prioritizing and understanding who the **intended primary user audience** is. Metrics going forward should indicate if the portal is meeting the needs of identified users and a multidisciplinary group that includes representatives from internal and external users can accomplish this. Quality improvement plans should be developed for each indicator so goals can be divided into doable increments. Metrics should be developed early in the planning process by an interdisciplinary team that includes representation from IDPH data analytic and program staff, local public health, academic and advocacy positions.

- **Define the user audience to target the necessary resources, data sets, and training that IDPH dedicates to the portal.**

    There appear to be four primary audiences as defined below:
    - IDPH program staff
    - IDPH data analysts
    - Community Based Stakeholders which largely includes local public health
    - General Public

Starting with the **IDPH audiences** has advantages in that the audience is largely centrally located and captive. In addition, IDPHP should be experts at knowing the benefits and functionality of the IPHTP especially given the vision of IDPH to grow into the role of Chief Health Strategist. Training IDPH personnel will allow those staff members to be champions of the IPHTP and they can, in turn, reach out to the CBS especially local public health constituents.

Community Based Stakeholders are the second identified audience. Once training and messaging has been developed for the IDPHP, those materials can be used as a foundation to train and develop resources for this audience. CBS have similar yet different needs then IDPHP including they are not as likely to have easy access to data experts and many, especially the smaller departments and organizations want infographics and easy to locate, simplified data.

The **General Public** is the largest and most diverse audience. This audience includes a range of users such as advocates who have much passion and strong voices for public health issues. This audience also includes the elected officials at all levels that represent the general public. **Members of this audience seek out data to support their messages and they are finding lack of accessible and understandable data to be an issue.** Initial and ongoing outreach with this audience will need special consideration and planning to reach the broadest number and to create tools that are functional for all user levels.

Members of these audiences should be intimately involved in the planning of the enhanced IPHTP because they can help to champion the IPHTP to their peers and they can provide insight during the planning phase that IDPH otherwise may not consider.

- **Rebranding and creating additional awareness of the portal is an identified need.** As summarized in the report many stakeholders were unaware of the portal. Additionally, throughout the focus group process, it became clear that knowledge of what tools and data are available on the portal was sparse. We also found individuals had visited the portal one time, found it difficult to use or did not find the type of data they were seeking and then failed to return.

  Rebranding is recommended, not to redo a logo or to redesign the look of the IPHTP, but rather to very specifically define for users the benefits of the IPHTP. Specific talking points and messaging to help users understand the purpose of the IPHTP, defining the target audience, showcasing the data that is available and what items have changed/improved are all very important talking points that should be clearly articulated as IDPH rebrands the IPHTP. Ideally, the rebranding would occur after some of the recommendations have been implemented. Rebranding will take additional resources as this involves face to face communications and demonstrations as well as providing the same information through webinar format, at various conference presentations and in a wide variety meeting venues across the state.

  Additionally, once the messages and talking points have been developed and communicated there is a significant need for continued outreach and training to help users get into a habit of using the IPHTP. It is strongly suggested that during the branding phase, in addition to

demonstrations of the IPHTP, IDPH should plan focused training sessions with high user groups throughout the state.

- Many States manage a public health data portal. We recommend IDPH **reach out to other States for guidance** on the processes used to develop, fund, engage users and overall enhance their portals. Utah, Louisiana and Missouri are states that could be considered.

- **Public health workforce continuing education and professional development** is desired and needed. Many local public health departments do not have an in-house epidemiologist. Through conversations in interviews and focus groups it became clear that many data users do not have a data analytic background, or the resources (such as a researcher or scientist) or the tools to appropriately interpret the data, yet many indicate they have the skills to use the IPHTP. Some users are unaware they may be interpreting data inappropriately. As we hope to increase use of the portal, it is imperative to address this workforce issue through training.

  In the short term, focused conversations during regular meetings to **improve data use skills at the state and local level** could be planned. Perhaps regional public health meetings could be a possible venue to dedicate time to develop specific data user skills. Utilization of the College of Public Health faculty in this planning would be beneficial and has the potential to **spark partnerships between faculty and the public health workforce.**

- Part of the necessary infrastructure for operation of a successful data portal is **dedicated and ongoing technical assistance (TA) and training for users.** TA and ongoing training should be developed and implemented as the portal grows. This will require upfront and sustainable funding, but is necessary infrastructure needed to assure the IPHTP success. The TA could include personnel who are available to answer questions by phone or as users increase, through chat boxes within the IPHTP. Technical questions, data questions, and data policy questions for the IPHTP could be filtered through this TA mechanism. The support should include trainings that occur in person at statewide events and conferences (such as the Governor's conference on public health) but should also be available through webinars and short 30-second booster videos that can be placed on the website and easily obtained and viewed by the user while they use the IPHTP. The training regarding the portal should be continuous as changes and updates are made, therefore timing and flexibility will be key to the TA provided. Training regarding use of IPHTP data and data policies should be offered multiple times a year to account for turnover of CBS and IDPHP.

- Repeatedly, respondents in focus groups and interviews expressed the need to better contextualize public health data and requests were made for **one page fact sheets and infographics**. We recommend the development of a tool on the portal that would allow users to generate individualized infographics. Using website analytics such as utilization of specific datasets and searches that are most frequently used, can guide the IDPH to prioritize what infographics and one-pagers could be produced through the IPHTP for users.

The IDPH legislative Liaison already produces one-page informational documents for timely public health issues, which could provide a positive starting point in the development of one page documents. A toolkit could be developed to help users (specifically advocates in the general public audience) translate fact sheets, combine the information with personal stories and use them to help **formulate informed decisions among constituents**.

- Many stakeholders expressed frustration that there is not a "one stop shop" for Iowa public health data. In the short term, the development of a **"data resources page"** that includes links and the description of credible data available would benefit users.

- **Development of user accounts would be valuable**. Users requested the ability to save searches and graphs made while utilizing data in the portal. The development of user accounts has the potential to bring users back to the portal after their initial visit. Utilization of a "user's profile" where key areas of interest are indicated could be used by the IPHTP to generate targeted messages to users when data is changed or updated.

- **Develop a communication plan** for news about the IPHTP. This plan should describe venues for regular communication regarding newsworthy occurrences related to the portal such as updated data sets, opportunities for training, information about changes in procedures, and highlighting data within the portal. Timeframes (quarterly, monthly, etc.), venues and assigned personnel should be included in the plan. Eventually, the communication plan should include contact with users who have established user accounts in the IPHTP as discussed above.

- Format, where possible the option of certain portal pages to be **accessible on smart phones, iPad and other similar devices.**

Long term recommendations

Long-term recommendations are focused largely on increasing the visibility of the portal and making changes and enhancements that will take additional up front and sustainable resources. Many participants desire the IPHTP to have expanded data or increased options for data presentation. If alternative presentation options or data sets are not available, it is in the IPHTP best interest to explain this up front to the user on the site. **Explaining data limitations up front creates realistic expectations for the user.**

- **We recommend the IPHTP standardize definitions/metrics used on the portal.** Stakeholders frequently requested the need to compare data to other sources such as Healthy People 2020, Healthy Iowans and to other counties, state and national level data. What was unclear is what data they are using for comparisons (county level vs. program). It was also revealed in the interviews that some definitions of health outcomes (i.e. low birth) in the portal are different then national standards. We recommend these standardizations or common data elements be developed with key stakeholders including program staff and content specific research partners.

- The **portal should be expanded** to include highly used data such as BRFSS results, motor vehicle and criminal statistic data, mental health, obesity, nutrition, substance use, social determinants of health, and Ages and Stages Questionnaire (ASQ) developmental data.

- In every interview and focus group, stakeholders expressed the need for **data linkage between datasets** represented on the portal. The data is currently disparate and users are not able to draw conclusions on how health outcomes may be influenced by multiple risk factors. We recommend, where possible, to perform linkage among datasets. Additionally, when designing future survey and data collection tools, we recommend collection of data in such a way that would allow for linkage.

- In nearly every focus group, it was expressed that it would be useful to have a **mapping function** on the IPHTP. Similar to the tool mentioned above, a mapping tool can help the user bring the data to life by outlining specific neighborhoods and health outcomes.

- As summarized in the report, many stakeholders prefer to **access raw data**. While there are reports that are exportable, the data is not raw and does not allow users to analyze data to meet their expressed needs. We recommend the portal provide users, based on security access, the access to raw data, where appropriate.

- Currently the portal is hosted on SharePoint. As IDPH moves away from using the **SharePoint platform**, a plan for how the portal will be hosted and maintained will need to be developed. That plan should include detailed process and funding mechanisms for the transition. The transition should appear seamless to the IPHTP users and as enhancements are made to the portal, these improvements should consider this inevitability.

- **Implement ongoing training through development of a detailed training plan with topics that are defined throughout this report. A**ppropriate usage of data offered on the portal is vital to effectively plan and evaluate health in the state of Iowa. Development of an ongoing training plan is a critical component as users of the IPHTP are able to do more in depth data inquires. The training plan should include topics for training, a timeline that provides regular and frequent opportunities, and multiple learning strategies to accommodate learners. Funding for ongoing training will need to be identified and training will need to be offered continuously to account for the changes in workforce

- Many respondents indicated they are collecting their own public health data. A mechanism could be implemented for CBS and other stakeholders to **make local data available on the portal.** Dedicated resources will be necessary for training of stakeholders on how to collect, prepare and provide data to the portal. IDPH would also need staff resources to accept and populate these data on the portal. One area to consider would be the Community Health Needs Assessments and Health Improvement Plans. The process for completing these plans would need to be standardized across the state and programs.

- **Evaluation of the portal** should occur at regular intervals to assure that stakeholder needs are met and resources are providing the desired return on investment. Ideally, the evaluation would include qualitative and quantitative information. In addition, IDPH should seek regular user feedback through an interactive survey on the IPHTP that can be completed at any time by users.

Appendices 1-3

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Appendix 1: *IPHTP Data Needs Assessment on-line Survey per User Group*

Questions IDPHP	Questions Community Based Stakeholders	Educators	Elected Officials
Portal use and knowledge			
1. Do You use the IDPH track portal? The portal can be found on the website at https://pht.idph.state.ia.us. (yes/no)	1. Do You use the IDPH track portal? The portal can be found on the website at https://pht.idph.state.ia.us. (yes/no)	1. Do You use the IDPH track portal? The portal can be found on the website at https://pht.idph.state.ia.us. (yes/no)	1. Do You use the IDPH track portal? The portal can be found on the website at https://pht.idph.state.ia.us. (yes/no)
2. How often do you utilize the Iowa Public Health Tracking Portal to access public health data? (weekly, monthly, quarterly, annually)	2. How often do you utilize the Iowa Public Health Tracking Portal to access public health data? (weekly, monthly, quarterly, annually)	2. How often do you utilize the Iowa Public Health Tracking Portal to access public health data? (weekly, monthly, quarterly, annually)	2. How often do you utilize the Iowa Public Health Tracking Portal to access public health data? (weekly, monthly, quarterly, annually)
3. How did you learn about the Iowa Public Health Tracking Portal? (Check all that apply: academic or continuing education class, conference exhibit, community partner, employer, IDPH website, Meeting or presentation, Professional Association communication such as a newsletter, search engine, social media, other)	3. How did you learn about the Iowa Public Health Tracking Portal? (Check all that apply: academic or continuing education class, conference exhibit, community partner, employer, IDPH website, IDPH Staff, Meeting or presentation, Professional Association communication such as a newsletter, search engine, social media, other)		
4. Do you feel you have the skills necessary to effectively use the Iowa Public Health Tracking Portal? (yes/no)	4. Do you feel you have the skills necessary to effectively use the Iowa Public Health Tracking Portal? (yes/no)		
5. Do you find the Iowa Public Health Tracking Portal easy to navigate?	5. Do you find the Iowa Public Health Tracking Portal easy to navigate?	3. Do you find the Iowa Public Health Tracking Portal easy to navigate?	3. Do you find the Iowa Public Health Tracking Portal easy to navigate?
6. How useful is the information on the Iowa Public Health Tracking Portal?	6. How useful is the information on the Iowa Public Health Tracking Portal?	4. Does the IDPH portal offer the information and data needed for your class?	4. Does the IDPH portal offer the information and data needed for your personal/community needs?

Stakeholder Needs			
7. Some public health workers are asked a variety of questions about data depending on their scope of work. How often are you asked to provide public health data for **internal purposes** (options: daily, weekly, monthly, quarterly, annually, never)	7. Some public health workers are asked a variety of questions about data depending on their scope of work. How often are you asked to provide public health data for **internal purposes** (options: daily, weekly, monthly, quarterly, annually, never)		
8. Who asks these questions? (check all that apply) (advocacy representatives (NAMI, Brain Injury Coalition, etc.); Boards of health, Boards of Supervisors, etc.; community agency representatives, Co-workers within your organization (supervisors, employees) etc.; elected official, federal agencies, healthcare organizations (hospitals, clinics, oral health providers, etc.); media (reporters, writers, newscasters, etc.); private citizens, schools, social media (questions come from social media websites like Facebook, Twitter, etc.); state agencies, students.	8. Who asks these questions? (check all that apply) (advocacy representatives (NAMI, Brain Injury Coalition, etc.); Boards of health, Boards of Supervisors, etc.; community agency representatives, Co-workers within your organization (supervisors, employees) etc.; elected official, federal agencies, healthcare organizations (hospitals, clinics, oral health providers, etc.); media (reporters, writers, newscasters, etc.); private citizens, schools, social media (questions come from social media websites like Facebook, Twitter, etc.); state agencies, students.		
9. What emerging issues related to public health data do you receive or answer questions about?	9. What emerging issues related to public health data do you (your agency) receive or answer questions about?	5. What types of Public Health data questions do you ask your students to research?	5. What types of public health data do you access regularly?
10. Are you (or your program) asked to contextualize data? In other words, do you use public health data to formulate meaningful insights regarding current happenings and situations in your program or in local communities? (yes/no)	10. Are you (or your agency) asked to contextualize data? In other words, do you use public health data to formulate meaningful insights regarding current happenings and situations in your program or in local communities? (yes/no)		
11. Would you like to have assistance to use public health data to develop meaningful insights that are specific for your community or program? (yes, maybe, no)	11. Would you like to have assistance to use public health data to develop meaningful insights that are specific for your community or program? (yes, maybe, no)		

12. Are you (or your program) asked to calculate statistics from the data that you use? (yes, sometimes, no)	12. Are you (or your agency) asked to calculate statistics from the data that you use? (yes, sometimes, no)		
13. Who provides assistance to analyze data or draw meaningful insights as you respond to questions? (Check all that apply) (Academic or research faculty from an institution of higher learning, coworker/colleague within my agency, another IDPH group, supervisor, colleague outside of my agency other then IDPH or academic faculty, No one helps me- I am confident in my skills to complete this work myself, no one helps me- but I would like assistance with this work)	13. Who provides assistance to analyze data or draw meaningful insights as you respond to questions? (Check all that apply) (Academic or research faculty from an institution of higher learning, coworker/colleague within my agency, another IDPH group, supervisor, colleague outside of my agency other then IDPH or academic faculty, No one helps me- I am confident in my skills to complete this work myself, no one helps me- but I would like assistance with this work)		
14. How do you use data? (check all that apply) (grant/contract proposals, reports, accreditation, activities, needs assessment activities, community requests, general information dissemination, other)	14. How do you use data? (check all that apply) (grant/contract proposals, reports, accreditation, activities, needs assessment activities, community requests, general information dissemination, other)		
15. Is there currently someone within your program trained in data analysis, such as an epidemiologist, or someone that possesses advanced data training? (yes/no)	15. Is there currently someone within your agency trained in data analysis, such as an epidemiologist, or someone that possesses advanced data training? (yes/no)		
Consuming Data			
16. In what form would you like to view data? (click all that apply) (highly customized interactive portal data view, displays with predetermined measures, displays with minor customizable reports, raw data)	16. In what form would you like to view data? (click all that apply) (highly customized interactive portal data view, displays with predetermined measures, displays with minor customizable reports, raw data)	6. In what form would you like to view data? (click all that apply) (highly customized interactive portal data view, displays with predetermined measures, displays with minor customizable reports, raw data)	6. In what form would you like to view data? (click all that apply) (highly customized interactive portal data view, displays with predetermined measures, displays with minor customizable reports, raw data)

17. Please complete the following sentence. My program prefers,… (to analyze raw data, to have data pre-analyzed for us, a combination of raw data and pre-analyzed data)	17. Please complete the following sentence. My agency prefers,… (to analyze raw data, to have data pre-analyzed for us, a combination of raw data and pre-analyzed data)		
18. Does your program have the resources and expertise to analyze raw data((yes, no, I do not know)	18. Does your agency have the resources and the expertise to analyze raw data((yes, no, I do not know)		
19. Have you, or do you currently use the following data? (options: reportable disease, demographic data health disparities/social determinants of health, health behaviors [e.g., smoking, substance abuse, diet/exercise], environmental, health outcomes, hospitalization data, claims data, immunizations, subgroups/special populations)	19. Does your agency use data listed below? (options: reportable disease, demographic data health disparities/social determinants of health, health behaviors [e.g., smoking, substance abuse, diet/exercise], environmental, health outcomes, hospitalization data, claims data, immunizations, subgroups/special populations)	7. What types of Public Health data do you ask your students to research? (example: demographic data, etc.)	7. What types of public health data do you access regularly?
20. Do You compare data from your program(s) to other programs? (check all that apply) (I compare data internal, across demographic groups; I compare my data, to county level data; I compare my data, to stat level data; I compare my data, to national benchmarks; I do not compare my data as these options are not available for me.	20. Do You compare data from your program(s) to other programs? (check all that apply) (I compare data internal, across demographic groups; I compare my data, to county level data; I compare my data, to stat level data; I compare my data, to national benchmarks; I do not compare my data as these options are not available for me.	8. What level of Public Health data questions do you ask your students to research?	
Data Collection			
21. Is the public health data available, timely enough to meet your needs? (yes/no)	21. Is the public health data available, timely enough to meet your needs? (yes/no)		
22. Would you like to receive data in a more timely manner, if it meant that data were preliminary, and less accurate? (yes, maybe, no)	22. Would you like to receive data in a more timely manner, if it meant that data were preliminary, and less accurate? (yes, maybe, no)		
23. Do your colleagues participate in data collection activities? (yes/no)	23. Do your colleagues participate in data collection activities? (yes/no)		

24. Who funds or mandates these data collection activities? (check all that apply) (academic institutions, community partners, foundations, federal agency, hospitals or other healthcare entity, my agency, stat agency other than IDPH, other)	24. Who funds or mandates these data collection activities? (check all that apply) (academic institutions, community partners, foundations, federal agency, hospitals or other healthcare entity, my agency, stat agency other than IDPH, other)		
25.. Who designs the data collection protocol? (check all that apply) academic institutions, community partners, foundations, federal agency, hospitals or other healthcare entity, my agency, state agency other than IDPH other)	25. Who designs the data collection protocol? (check all that apply) academic institutions, community partners, foundations, federal agency, hospitals or other healthcare entity, my agency, state agency other than IDPH other)		
26. Do you use IDPH personnel to answer your data and reporting questions? (yes, at least monthly; yes, at least quarterly; yes, at least annually; no, I do not Use IDPH personnel to answer data and reporting questions)	26. Do you use IDPH personnel to answer your data and reporting questions? (yes, at least monthly; yes, at least quarterly; yes, at least annually; no, I do not Use IDPH personnel to answer data and reporting questions)	9. Do you use IDPH personnel to answer your data and reporting questions?	8. Do you use IDPH personnel to answer your data and reporting questions?
Dissemination of data			
27. Do you disseminate public health data outside of your program? (yes/ no)	27. Do you disseminate public health data outside of your agency? (yes/ no)		
28. How do you disseminate the data? (check all that apply) (informational meetings such as a team meetings, agency meetings, community sponsored meetings, etc.; newsletters, presentation at a regional, state or national conference: print documents; social media; website posting; other)	28. How do you disseminate the data? (check all that apply) (informational meetings such as a team meetings, agency meetings, community sponsored meetings, etc.; newsletters, presentation at a regional, state or national conference: print documents; social media; website posting; other)		
29. What type of data displays would you like to generate? (check all that apply) (charts, graphs, infographics, tables, other.)	29. What type of data displays would you like to generate? (check all that apply) (charts, graphs, infographics, tables, other.)		

30. Does your program have the tools and skills (trained personnel) to generate data displays? (yes, my agency has both the tools and the skills; my agency has the skills but not the tools; my agency has the tools but not the skills; no, my agency does not have the skills or the tools)	30. Does your agency have the tools and skills (trained personnel) to generate data displays? (yes, my agency has both the tools and the skills; my agency has the skills but not the tools; my agency has the tools but not the skills; no, my agency does not have the skills or the tools)		
Data sharing policy			
31. Are you aware of the IDPH data sharing protections, including the IDPH confidentiality policy? (yes/no)	31. Are you aware of the IDPH data sharing protections, including the IDPH confidentiality policy? (yes/no)		
32. Are these protections clear? (yes/no)	32. Are these protections clear? (yes/no)		
Data Sources			
33. Please identify the top 3 data sources that you routinely use to obtain needed public health data (IDPH sites and Non-IDPH sites) Please enter once source for each text box. The questions that follow will ask you to list items based on Source, 1, Source 2, Source 3 that you identify in this question.	33. Please identify the top 3 data sources that you routinely use to obtain needed public health data (IDPH sites and Non-IDPH sites) Please enter once source for each text box. The questions that follow will ask you to list items based on Source, 1, Source 2, Source 3 that you identify in this question.		
34. What information do you find most useful regarding these data sources? Use the same three sources that you listed in the previous questions.	34. What information do you find most useful regarding these data sources? Use the same three sources that you listed in the previous questions.		
35. What information do you find least useful regarding these sources? Use the same three sources that you listed in the previous question.	35. What information do you find least useful regarding these sources? Use the same three sources that you listed in the previous question.		
36. What data do you most frequently access form these data sources? Use the same three data sources that you listed in the previous questions.37.	36. What data do you most frequently access form these data sources? Use the same three data sources that you listed in the previous questions.		
About You			

37. What type of organization best describes who you are employed by? (foundation, hospital, Iowa Department of Public health, Local public health, Nonprofit community organization, state agency other than IDPH, other	37. What type of organization best describes who you are employed by? (foundation, hospital, Iowa Department of Public health, Local public health, Nonprofit community organization, state agency other than IDPH, other		
38. What geographic region does your program serve? Sub county, county, city/town, multi-county area, state	38. What geographic region does your program serve? Sub county, county, city/town, multi-county area, state		
39. What is your role in the organization? Director, program lead, manager, educator, director services, provider, other	39. What is your role in the organization? Director, program lead, manager, educator, director services, provider, other		
40. How comfortable are you analyzing data? (1-10)	40. How comfortable are you analyzing data? (1-10)		
41. How comfortable are you using web based data sources such as the Iowa Fact Book, Community Health Status Indicators, Or DiversityDataKids, etc. (1-10)	41. How comfortable are you using web based data sources such as the Iowa Fact Book, Community health Status Indicators, Or DiversityDataKids, etc. (1-10)		
42. What else would you like the evaluation team to know? Please provide additional information as necessary to help us best understand your public health data needs.	42. What else would you like the evaluation team to know? Please provide additional information as necessary to help us best understand your public health data needs.		

Public Health Data Needs Assessment
Pre Meeting assignment

Instructions: The questions below are designed to assess the usability and data content available on the Iowa Department of Public Health Data Portal. Your experience using the data portal will be discussed during your scheduled interview or focus group. Please take note of answers as well as any additional feedback you have related to finding the answers to the questions below.

Access the portal at ➔ https://pht.idph.state.ia.us

Asthma

1. In 2002 what was the total number of asthma hospitalizations in the state of Iowa?

2. In 2015 what was the crude rate per 10k asthma hospitalizations?

3. While looking at the data for asthma hospitalizations in 2015 you will see multiple graphs. Change one of the graph types from a line graph to a bar graph (on the IDPH data portal page not outside of the website).

4. What was the age-adjusted rate per 10k for Asthma Hospitalizations in Hardin County?

Lead Poisoning

5. In 2012, what percentage of the *Birth Cohort Children under 3* years of age was tested for lead in Mills County?

6. Did Mills County test a higher or lower percentage of children under 3 years of age for lead in 2000?

Demographics

7. In years 2011-2015, how many females were reported to live in Johnson County?

Export Reports from Data Portal

8. Export the Top Causes Report to Excel on your desktop.

9. In your county what were the top 5 county death causes in 2015 for all ages?

IDPH Data Needs Assessment - Strengths – Weaknesses- Opportunities - Recommendations

Topic Area	Strengths	Weaknesses	Opportunities	Recommendations	User Groups Impacted by Recommendations
Knowledge and Use of Portal	●Accessibility of data • Web based • Dedicated resources used to develop IPHTP • Broad audience capability	●limited use and awareness of the IPHTP • Key indicators of success are not well known	●Increase awareness of the portal • Increase user training through short videos and hover hints • Many venues to promote through IDPH regular activities	●Develop key indicators for success • Define user audience • Advertise and promote at meetings, conferences, etc. ●Social media campaign ●Target promotion by user group • Develop short (30 second) video clips and hover hint capability • Ongoing promotion and awareness campaign • Develop communication plan for news about the IPHTP	●CBS ●IDPHP ●Educators ●Legislators
Stakeholder Needs	●Ability to filter data on portal • Public health data covering diverse topics ●Recent updates to IPHTP viewed positively	●not enough filter options • Datasets not linked ●Lack of data on emerging issues and special populations	●Improve user experience through increased functionality • Develop training for broad workforce highlighting considerations for using public health data	• Increase filtering options ●Link dataset where possible ●Provide data on emerging issues and special health care needs • Provide public health data training options	●CBS ●IDPHP ●Educators ●Legislators

Topic Area	Strengths	Weaknesses	Opportunities	Recommendations	User Groups Impacted by Recommendations
Consuming Data	• IPHTP data is trusted and reliable • IPHTP Lead Poisoning information is understandable • Categories were self-explanatory	• Some labeling is confusing (heart disease vs heart attack) • Some have utilized IPHTP and were not able to find what they were looking for	• Increase interactive options and provide clear instructions • Increase data visuals (options for infographics, word clouds • Decrease industry jargon	• Develop user accounts • Expand to include highly used data such as BRFSS results, motor vehicle and criminal statistic data, mental health, obesity, nutrition, substance use, social determinants of health, and Ages and Stages Questionnaire (ASQ) developmental data.	• CBS • IDPHP • Educators • Legislators
Data Collection	• Many respondents collect data • Data collected with instruments provided by IDPH • Respondents are eager to share their data and want to compare how they are doing locally	• No clear mechanism for sharing data within IDPH portal • Much data collected by IDPH but no way to share it	• Inclusion of more data such as the information from community needs assessments • Standardize assessments so data is reportable	• Identify barriers to receiving data from local sites • Identify barriers local site may face in providing data • Develop a mechanism for data sharing	• CBS • IDPHP • Educators
Dissemination of Data	• Majority of respondents disseminate data • Respondents want to tell data supported story	• Data presented on portal not in ready to share format • Lack of data visualization tools	• Improve use of portal data by contextualizing data • Improve ease of exporting charts graphs and reports	• Improve visualization of map data • Provide infographics on specific public health issues • Provide infographic tool or template for users to generate their own graphics	• CBS • IDPHP • Educators • Legislators

Topic Area	Strengths	Weaknesses	Opportunities	Recommendations	User Groups Impacted by Recommendations
Data Sharing Policy and Protection	●Users know there is a policy	●Policy not in obvious place on portal ●some users confused by policy	●Improve visibility of policy in multiple pages of IPHTP ● Provide training on policy and limits of data	●Provide more links to the policy information throughout portal ●Request users agree to policy when downloading data through pop up screen ●Include short training video explaining policy	●CBS ●IDPHP ●Educators ●Legislators
Data Sources	●Portal has high quality data ●Improvements made in 2016 were helpful ●Many emerging issues that users want data for	●Users are going elsewhere to get needed data	●Expand data sets	●Adapt changes to the portal based on what respondents cited as why they like other data sources	●CBS ●IDPHP ●Educators ●Legislators
Educator and Legislative Respondents	●Legislators and Educators use public health data	●limited use of IPHTP	●provide infographics and small bits of info for elected officials	●Increase partnership with PH educators/students to provide data expertise ● Provide infographics and briefs	●Educators ●Legislators