



# Short-Term Strategic and Operational Plan

February 1, 2011 through July 31, 2011  
Iowa Department of Public Health

Oversight Committee

Approved March 17, 2011

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## Project History

The Data Warehouse (DWH) initiative started at the Iowa Department of Public Health (IDPH) in 2007. Staffing and support were housed primarily in the Bureaus of Communication and Planning and Information Management. After extensive assessment and planning, the department issued a request for proposals (RFP) for an external contractor to develop the DWH solution. The outcome intent was for a SQL-based solution that IDPH had the internal capability to continue to develop and support.

Throughout the process of building the application, internal and external user groups and department executive team members were used to identify and prioritize the progression of the DWH solution.

In fall 2009, IDPH in collaboration with an external vendor delivered a DWH solution for IDPH and local users. In accordance with the RFP, the solution was built in SQL server, providing data at a county-level. Data were delivered in iterations; these iterations included delivery of one to many cubes where each cube contained a subject area (e.g. Birth Cube, Death Cube, and Hospital Discharges Cube). The Data Warehouse is not a transactional warehouse; rather final data are loaded annually. The Data Warehouse does not contain provisional data. The Data Warehouse is constructed on the basis of public health events and does not allow for the tracking of a specific individual over time. DWH access is tied to the SharePoint application.

Whereas the original RFP called for the delivery of a public web-based portal for the delivery of data and reports, this was removed from the scope of the external vendor's deliverables due to confidentiality concerns. Specifically, a methodology could not be defined that would ensure compliance with the Department's responsibility to ensure data provided via the DWH solution could not be combined with any other published data or report to identify an individual either directly or indirectly.

Nine datasets were initially targeted for integration in the first phase of the solution. These data included birth records, death records, hospital discharges, health and financial support (Department of Human Services), Behavioral Risk Factor Surveillance System (BRFSS), Iowa Youth Survey (IYS), National Electronic Telecommunication System for Surveillance, Census, and Childhood Lead Level Surveillance System. Due to the complexity and availability of the datasets, the number of sets was reduced to five including birth, death, BRFSS, hospital discharges, and census data. In addition, county snapshots were created for each of the 99 counties in Iowa. These simple, yet useful reports are the only data currently available in the application. Data may also be viewed in pivot table format and exported as delimited files.

Also built into the system, but still being defined, are user levels. Basic users from outside the department may access pre-determined data sets in pivot table format. Advanced users are able to manipulate the contents of pivot tables, but as of early 2011, these users could do so through the MS Excel program and only when accessing the DWH directly from the Department's network. Further defining Advanced User access is a priority item within this report.

As part of the contract with the external vendor, training materials were provided. In the summer and fall of 2010, IDPH staff conducted six trainings throughout the state focused to local public health agency (LPHA) users. The primary goal in orienting LPHA users was to enable access to data essential to Community Health Needs Assessment and Health Improvement Plan. Reports were required to be submitted to IDPH in February 2011<sup>1</sup>. Local public health agency staff was the first to be trained and to frequently use the application.

Also in 2010, the Bureau of Environmental Health Services was awarded an Environmental Public Health Tracking (EPHT) grant from the Centers for Disease Control and Prevention. The goals of the tracking grant are to provide extensive access to environmental and public health data in the form of indicators. A significant portion of the work associated with this grant requires the development of a publicly accessible portal, containing the health indicator data that will be part of the existing DWH. This is another priority item within the DWH Short-Term Strategic and Operational Plan.

At the end of 2010, IDPH hired a new Data Warehouse coordinator. This staff person will be solely dedicated to the management and progression of the DWH. The coordinator is working closely with the project technical lead in the Bureau of Information Management, as well as the newly formed Oversight Committee and the EPHT team. This person will also work with the External User group.

The department is committed to progressing the use and functionality of the DWH. However, a thorough business needs assessment must be repeated to appropriately direct the future of this project. On February 11, 2011, the department posted a request for proposals to complete the business needs assessment. The goals and objectives of the assessment and responsibilities of IDPH staff are outlined in this plan.

The project has two phases. The work in the first phase of the assessment includes the following elements: 1) a review of the functionality, accessibility, structure and contents of the present DWH application; 2) completion of a program-level survey to reassess department business needs related to the DWH; 3) evaluation of the Environmental Public Health Tracking (EPHT) standards, and the goals and objectives of the project strategic plan; 4) completion of a survey with current and future users external to the department; and 5) incorporation of the findings of all assessments and evaluations into the DWH business needs final report. See Appendix A for a detailed performance measure matrix.

The work in the second phase of the assessment includes: 1) development of a data integration plan; 2) cooperative preparation of business requirements and specifications for building a public access portal into the existing DWH; and 3) creation of a master map of data housed in IDPH applications.

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<sup>1</sup> <http://www.idph.state.ia.us/chnahip/default.asp>

This strategic and operational plan (SOP) is short term plan and will be reviewed and updated every six months. The long term SOP will be developed following the first phase of the business needs assessment.

### **Plan Structure and Format**

This Short-Term Strategic and Operational Plan is organized around five primary project goals. These goals are intended to change little with each six month review. Objectives are secondary to goals and are defined as the critical accomplishments for each goal for the six month period defined by the plan. Under each objective are specific actions required to meet each objective. Then tasks with staff assignments and completion dates are contained in this report and are also part of the working project plan.



## Goal 1: Define the vision and mission of the Data Warehouse

### Objective 1

#### Conduct a business needs assessment for the Data Warehouse (DWH)

##### Actions

- 1-1 Utilize the RFP process to secure an external contractor to conduct the DWH business needs assessment.
- 1-2 Manage the RFP process and contract period using a team approach to involve appropriate staff and keep administration informed.
- 1-3 Outline the requirements for the business needs assessment. Identify end product goals including requirements in the EPHT grant. Include a timeline with assigned deliverables (See Appendix B).
- 1-4 Identify key IDPH staff assigned to work with the contractor throughout the 15 month contract/project period.
- 1-5 Draft a contingency plan in the event that a contractor is not secured through the RFP process.

### Objective 2

#### Define the structure and content of the first phase of the business needs assessment (May 1- July 31, 2011)

##### Actions

*The following actions are tasked to the contractor conducting the DWH business needs assessment, but are also the responsibility of the DWH staff and EPHT staff, when appropriate. Refer to Appendix C for detailed objectives of the RFP.*

- 2-1 Review the current functionality, data contents, structure, reports, user levels, and general accessibility of the Data Warehouse. Gain an understanding of the current state of the application for use in creating the survey tools and for completing the business needs final report.
- 2-2 Conduct a survey of IDPH program data needs, use, capacity, and requests received for data access and use.
  - 2-2.1.1 **Baseline metrics-** survey outcomes for metrics must be quantifiable. The results should be able to be examined by department, division, bureau and program.
  - 2-2.1.2 **Qualitative assessment-** a descriptive assessment should be carried out to identify needs complimentary to baseline metrics, but that may not be quantifiable.
- 2-3 Evaluate and identify the business needs of the Environmental Public Health Tracking (EPHT) program related to the Data Warehouse. Integrate the needs of EPHT into the Data Warehouse business needs assessment.
- 2-4 Conduct a needs assessment with the DWH external users comprised of local public health agency staff, general public, and researchers. Subgroups of the external users include- local public health agency staff, general public, environmental health users, and researchers including representatives from Iowa academic institutions.
- 2-5 Provide a detailed final report for the first phase of work with recommendations from the business needs assessment for how the DWH may be modified to address the needs of current and future users.

### Objective 3

#### Develop a strategy to address continuing needs related to the Data Warehouse in the second phase of the project (August 1, 2011-July 31, 2011)

##### Actions

The following actions are tasked to the contractor conducting the DWH business needs assessment, but are also the responsibility of the DWH staff and EPHT staff, when appropriate. Refer to Appendix C for detailed objectives of the RFP.

3-1 Develop a data integration plan, including methodology for prioritizing program-level data for inclusion in the DWH.

3-2 Create a master map of the data housed in IDPH applications

Tasks	Responsible party	Completion date
<b>Goal 1, Objective 1</b>		
A) Maintain a detailed project plan for the business needs assessment	DWH Coordinator	Ongoing
B) Conduct bi-weekly briefings with administration team	DWH Coordinator	Ongoing
C) Post RFP- <a href="http://www.idph.state.ia.us/IdphGBP/IdphGBP.aspx">http://www.idph.state.ia.us/IdphGBP/IdphGBP.aspx</a>	DWH/EPHT staff	Completed 2/11/11
D) Conduct an in-person meeting at the Governor's Conference on Public Health with the External User group	DWH Coordinator	4/6/11
<b>Goal 1, Objective 2</b>		
A) Identify points of contact from each IDPH program participating in the DWH business needs assessment	DWH Coordinator, EPHT Team	4/15/11
B) Complete RFP review process and make a recommendation to the Deputy Director	EPHT Lead, reviewers	4/22/11
C) Assemble past and current information related to 2008 assessment	DWH Coordinator	5/1/11
D) Contractor secured for the business needs assessment will submit deliverables according to the schedule outlined in the final contract	TBD	See Appendix A
<b>Goal 1, Objective 3</b>		
A) Provide materials from 2008 dataset assessment to the contractor	DWH Coordinator	7/31/11

## **Goal 2: Maintain, employ, and build upon partnerships with users**

### **Objective 1**

#### **Work with the Environmental Public Health Tracking (EPHT) team to advance the objectives in the CDC cooperative agreement**

##### **Actions**

- 1-1 Sustain routine communications between EPHT and DWH staff.
- 1-2 Support representation of EPHT on DWH issues and conversely, DWH representation on appropriate EPHT issues including advisory and oversight committees.
- 1-3 Host frequent, collaborative technical discussions regarding the EPHT program goals, objectives and deadlines. DWH staff will participate on national technical discussions as appropriate.
- 1-4 Remain aware of changes in the scope of the EPHT project as defined by CDC and other states with tracking cooperative agreements. Attend national conferences and workshops as appropriate and available.
- 1-5 Provide comments and feedback on key EPHT planning documentation.
- 1-6 Continuously anticipate and respond to the need for budget discussions and assess need for funding beyond the EPHT project scope and/or grant period.

### **Objective 2**

#### **Sustain interaction with the external user group, other state agencies, and other partners including potential funding agencies**

##### **Actions**

- 2-1 Review the current composition of the external user group. Parse users into subgroups of local public health agency staff, general public, environmental health users, and researchers including representatives from Iowa academic institutions.
- 2-2 Work with the EPHT program on gaining access to data brought into the department from external partners (e.g. Iowa Department of Natural Resources). Participate in discussions about the data and its possible uses.

### **Objective 3**

#### **Consider internal data stewards. Develop and maintain communication with internal data use groups and committees.**

- 3-1 Orient and interact with IDPH program-level staff that uses data on a regular basis to gain an understanding of the program level use and availability of data throughout the department.
- 3-2 Ensure the interests of the DWH project are represented on IDPH data steering committees such as Data Integration/Surveillance Team, the Data Integration Steering Committee, EPHT Advisory Committee, and the Surveillance group.
- 3-3 Work towards implementing quality improvement in how programs utilize data including format and report structure.

<b>Tasks</b>	<b>Responsible party</b>	<b>Completion date</b>
<b>Goal 2, all objectives</b>		
A) Participate in all bi-weekly meetings and all Advisory Team meetings	DWH Coordinator	Ongoing
B) Provide feedback on the Phase 1 of the EPHT Strategic and Operational Plan	DWH Coordinator/Technical Lead	Completed 2/1/11
C) Conduct revenue-generating assessment of other states	DWH/EPHT staff	5/1/11
D) Identify participants of the External User group and parse into subgroups	DWH/EPHT staff	5/1/11
E) Attend one national EPHT conference	DWH Coordinator	12/31/11

## Goal 3: Expand user accessibility and data content

### Objective 1

#### Continue to expand the access, functionality and content of the Data Warehouse

##### Actions

###### *Training*

- 1-1 Address issue of counties needing basic user training.
- 1-2 Consider the timing of training for IDPH and LPHA advanced users. Coordinate with the timing of training EPHT users.

###### *Existing system issues and data updates*

- 1-3 Address existing system issues identified in the initial iterations of the application.
- 1-4 Update existing data as it become available.
- 1-5 Continue iterations of data as prioritized by the business needs assessment.

###### *User roles*

- 1-6 Using the outcome of the business needs assessment; solidify plans to expand user roles including the advanced user.
- 1-7 Assess current IDPH and external users.
- 1-8 Examine confidentiality policy and assess use for advanced users in the DWH, and possibly users of the public portal.
- 1-9 Work with the IDPH Assistant Attorney General on confidentiality issues.

### Objective 2

#### Define the process of integrating environmental health data into the Data Warehouse

##### Actions

- 2-1 Ensure timelines and strategic and operational goals and objectives align between the Data Warehouse and EPHT projects.
- 2-2 Develop streamlined, sustainable, timed process for validating and integrating EH data in the data integration plan created from the business needs assessment.
- 2-3 Consider other state agencies to target for inclusion of new datasets related to environmental health data (e.g., DHS)
- 2-4 Participate in discussions with Iowa-based, external data stewards identified by EPHT (e.g., University of Iowa). Assess the value of adding general health data elements from the EPHT datasets, not included as a NCDM indicator.
- 2-5 Document potential for redundant data display. Of datasets in the DWH with environmental health data, examine where those data might be published external to the department. Consider Federal agencies, non-profit, and non-governmental entities.
- 2-6 Work with the EPHT team on the 17-state assessment of applications with a functional public portal to form concepts and ideas for the front-end appearance of the IDPH public portal in the DWH.

### Objective 3

#### Prioritize the development of a public access portal in the Data Warehouse

##### Actions

3-1 Work with IDPH staff to define business requirements for a public portal in the DWH and provide a plan for integration of the requirements.

3-1.1 Review of the CDC-provided standards and recommendations for the public access portal. Assess technical standards as well as functional standards.

3-1.2 Work with the needs assessment contractor, DWH staff, Information Management staff, and the EPHT team to define business requirements for the development of a public portal.

3-1.3 Provide an actionable plan that includes specifications and requirements for the public portal.

Tasks	Responsible party	Completion date
<b>Goal 3, all objectives</b>		
A) Create a schedule for assessing user access and the need to remove access for outdated users	DWH Coordinator/Technical Lead, IM	Ongoing
B) Provide a template to capture public portal front-end design preferences	DWH Technical Lead, IM	2/15/11
C) Contact counties in need of DWH basic training and assess training and access preferences	DWH Coordinator	3/1/11
D) Examine the public portals of the 17 states with functional applications. Log positive and negative attributes of the sites.	EPHT Team	5/1/11
E) Provide public portal standards and recommendations to the contractor including any changes in the NCDMs	EPHT Team	7/31/11
F) Provide user training as needed and on an ongoing basis	DWH Team	Ongoing

## Goal 4: Build awareness and trust of Data Warehouse project

### Objective 1

#### Sustain and prioritize communication and planning throughout the progression of the Data Warehouse

##### Actions

- 1-1 Develop an internal and external communication plan. Include separate strategies for internal and external communication.
- 1-2 Assess all possible forms of communication needed to keep current and future users informed of the progress and changes in the DWH. Consider email newsletters, web updates, and interested user group meetings.
- 1-3 Construct a risk management plan for the business needs assessment.
- 1-4 Review and revise the short-term strategic and operational plan (SOP) every six months.

### Objective 2

#### Educate and market the Data Warehouse to potential users

##### Actions

- 2-1 Update the marketing and educational materials for the DWH on the IDPH website.
- 2-2 Expand access to DWH to IDPH internally-housed staff. Consider internal training needs of the IDPH staff.

Tasks	Responsible party	Completion date
<b>Goal 4, all objectives</b>		
A) Develop a communication and data flow algorithm- (See Appendix C)	DWH Coordinator/Technical Lead	2/1/11
B) Oversight committee approval of DWH SOP	DWH Coordinator, Oversight Committee	3/5/11
C) Review the website content, revise and repost	DWH Coordinator, Intern	4/1/11
D) Create a master calendar for the release of public information, conferences, and local and state meetings where DWH representation is needed or requested	DWH Coordinator, Intern	4/1/11
E) Draft of the risk management plan to the Oversight Committee	DWH/EPHT staff	4/1/11
F) Approve draft of risk mitigation plan for 15 month project period starting 5/1/22	DWH /EPHT staff, Oversight Committee	5/1/11
G) Begin review of the SOP	DWH Oversight Committee	7/31/11

## Goal 5: Ensure financial sustainability and staff capacity for the Data Warehouse project

### Objective 1

#### Review financial resource needs, potential sources and sustainability of funding

##### Actions

- 1-1 Track funding sources for DWH maintenance. Include costs associated with staffing, technical support, and training.
- 1-2 Anticipate the need for additional or new funding. Explore new funding sources. Consider sustainability when evaluating new sources of funding.
- 1-3 Consider a partnership with Department of Administrative Services Information Technology Enterprise. Maintain relationship with coordinators of the IOWAccess program.

### Objective 2

#### Consider staffing needs and capacity

- 2-1 Engage in regular discussions around staffing needs for the DWH. Define roles and responsibilities and encourage collaboration across programs.
- 2-2 Identify periods throughout the development of the DWH when increased or decreased staff may be required for the project.

Tasks	Responsible party	Completion date
<b>Goal 5, all objectives</b>		
A) Provide feedback on EPHT staffing grid.	Administrative team	3/2/11
B) Attend the Technology Governance Board meeting and present the DWH RFP concept paper.	DWH Coordinator, IM Bureau Chief	March 2011

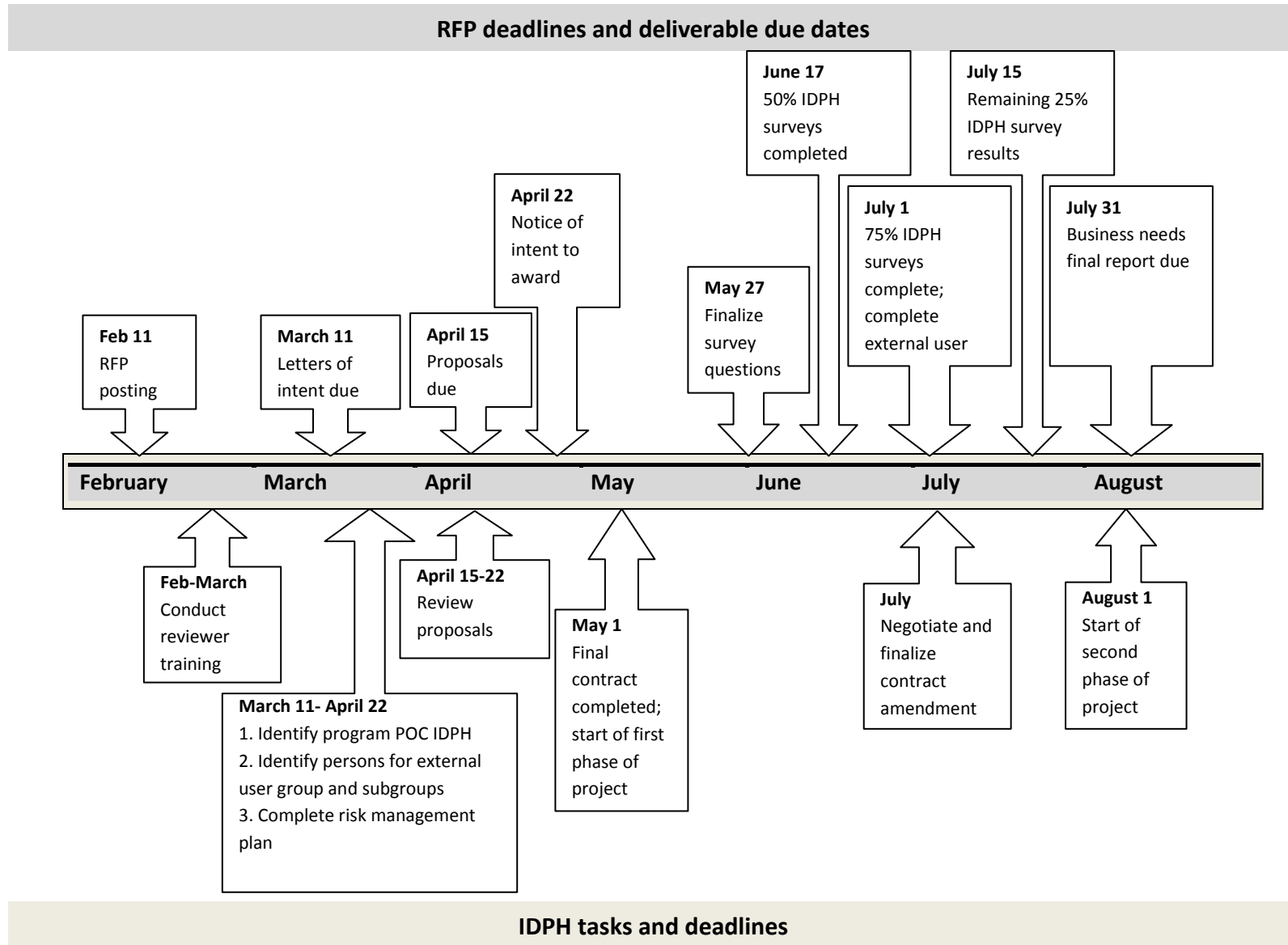
## Appendix A- Data Warehouse Task Matrix

	Ongoing	February	March	April
<b>Goal 1: Define the vision and mission of the Data Warehouse</b>	Maintain a detailed project plan for the business needs assessment	Post RFP- <a href="http://www.idph.state.ia.us/ldphGBP/ldphGBP.aspx">http://www.idph.state.ia.us/ldphGBP/ldphGBP.aspx</a> - 2/11		Conduct an in-person meeting at the Governor's Conference on Public Health with the External User group - 4/6
	Conduct bi-weekly briefings with administration team			Identify points of contact from each IDPH program participating in the DWH business needs assessment- 4/15
				Complete RFP review process and make a recommendation to the Deputy Director- 4/18
<b>Goal 2: Maintain, employ, and build upon partnerships with users</b>	Participate in all bi-weekly meetings and all Advisory Team meetings	Provide feedback on the Phase 1 of the EPHT Strategic and Operational Plan- 2/11		
<b>Goal 3: Expand user accessibility and data content</b>	Create a schedule for assessing user access and the need to remove access for outdated users	Provide a template to capture public portal front-end design preferences- 2/15	Contact counties in need of DWH basic training and assess training and access preferences- 3/1	
	Provide user training as needed and on an ongoing basis			
<b>Goal 4: Build awareness and trust of the Data Warehouse project</b>	Develop a communication and data flow algorithm	Oversight committee approval of DWH SOP- 3/5		Review the website content, revise and repost- 4/11
				Create a master calendar for the release of public information, conferences, and local and state meetings where DWH representation is needed or requested - 4/1
				Draft of the risk management plan to the Oversight Committee- 4/1

<b>Goal 5: Ensure financial sustainability and staff capacity for the Data Warehouse</b>	Contractor secured for the business needs assessment will submit deliverables according to the schedule outlined in the final contract		Provide feedback on EPHT staffing grid- 3/2	
			Attend the Technology Governance Board meeting and present the DWH RFP concept paper- March	

# Data Warehouse Business Needs Assessment Timeline of Events

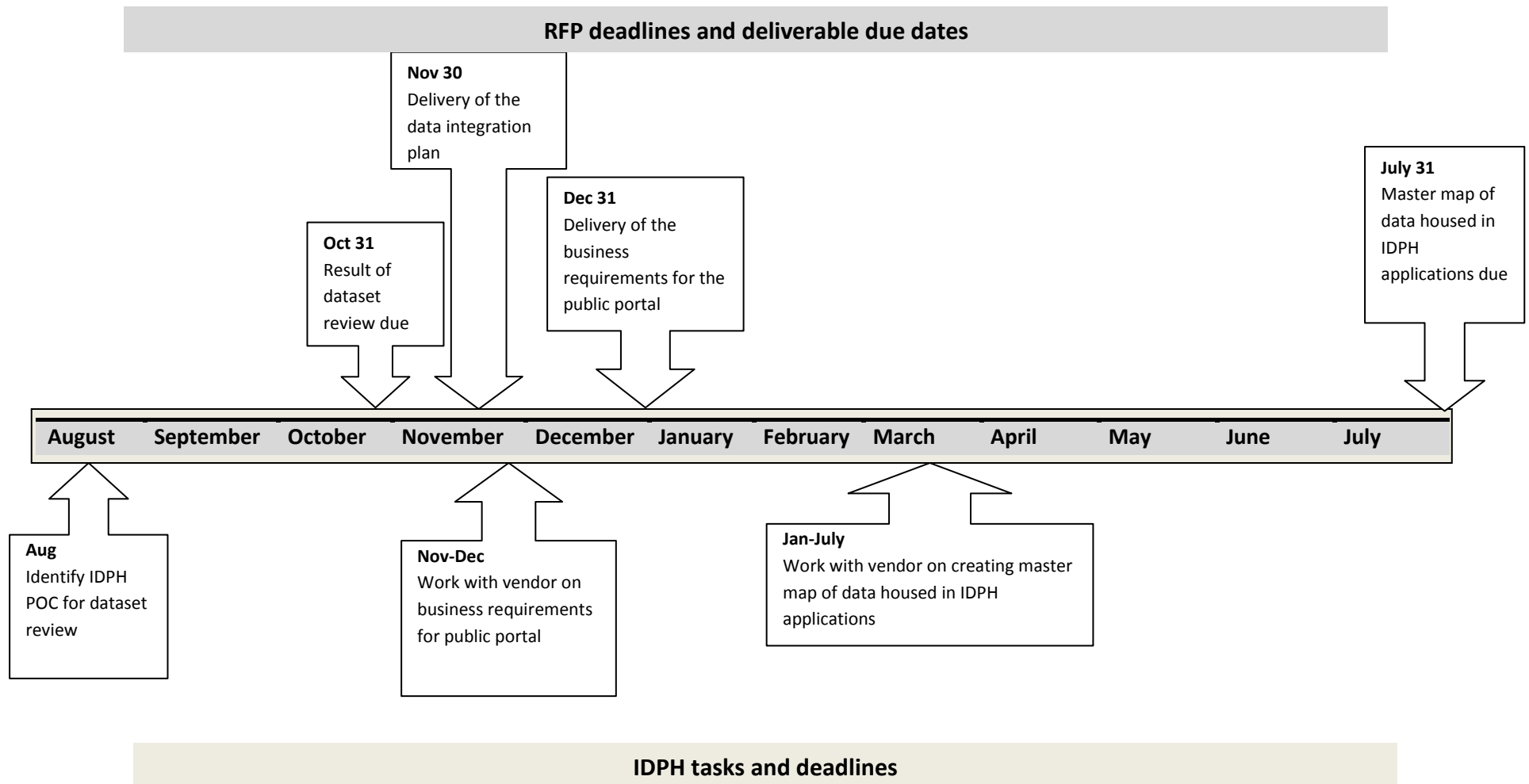
February 2011 through August 2011- First Phase



# Data Warehouse Business Needs Assessment

## Timeline of Events

August 2011 through July 2012- Second Phase



## Appendix C- Excerpt from the IDPH Data Warehouse Business Needs Assessment RFP 58811021

### 2.02 Description of Work and Services

The project has two phases. The work in the first phase of the project includes the following elements: 1) a review of the functionality, accessibility, structure and contents of the present DWH application; 2) completion of a program-level survey to identify department business needs related to the DWH; 3) evaluation of the Environmental Public Health Tracking (EPHT) standards, and the goals and objectives of the project strategic plan; 4) completion of a survey with current and future users external to the department; and 5) incorporation of the findings of all assessments and evaluations into the DWH business needs final report. See Section 2.03 Objective I for work details.

The work in the second phase of the project includes: 1) development of a data integration plan; 2) cooperative preparation of business requirements and specifications for building a public access portal into the existing DWH; and 3) creation of a master map of data housed in IDPH applications. See Section 2.03 Objective II for work details.

### 2.03 Objectives

#### I) Complete a business needs assessment for the Iowa Department of Public Health Data Warehouse (DWH).

**Identify the needs of current and future Data Warehouse users and make recommendations for aligning the Data Warehouse accessibility, content, and functionality to meet the needs of current and future users.**

- A) Review the current functionality, data contents, structure, reports, user levels, and general accessibility of the Data Warehouse. Gain an understanding of the current state of the application for use in creating the survey tools used in Objectives IB, C, and D and for completing the business needs final report.
- B) Conduct a survey of IDPH program data needs, use, capacity, and requests received for data access and use.
  - i) The applicant will meet with at least one point of contact from each of the approximately 65 programs throughout the department. The point of contact for each program will be identified by IDPH prior to the start of the survey process. The applicant will determine the best strategy for completing a survey that includes all of the programs (e.g., by division, small group meeting)<sup>2</sup>.
  - ii) The applicant will develop the process, tools, and methodology for conducting the survey. The applicant will provide the templates used in the survey and will detail methodology for conducting the survey in the business needs assessment.
  - iii) Final survey questions will be agreed upon by IDPH and the applicant.

**(1) Baseline metrics-** survey outcomes for metrics must be quantifiable. The results should be able to be examined by department, division, bureau and program.

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<sup>2</sup> <http://www.idph.state.ia.us/WhatWeDo/Profiles.aspx>

- (a) Assess whether staff are aware of the existence of the DWH application and if they can describe its present functionality. Quantify the number of staff that does not currently have access to the DWH that request access.
- (b) Detail the proportion of time staff spend working with data. Describe data-related work by work category (e.g. time spent cleaning data, analysis).
- (c) Determine department data analysis capacity including level of analytic skills, tools used by staff (e.g., SAS, SPSS, MS Access or Excel). Identify gaps in staff training on analytic programs.
- (d) Detail staff ability to present data in the forms of trends, outcomes, and indicators. Identify programs used to display data (e.g., GIS, MS Excel). Identify gaps in staff training on data presentation software.
- (e) Define the extent to which staff use various forms of data (e.g., flat files of raw data that requires cleaning or complex data files).
- (f) Assess which formats of data are most often used by staff.
- (g) Identify frequency of data release by program, including requests received for access to data. Determine format of release (e.g., data file, narrative report with graphs and tables). Also consider program ability to release data trends, outcomes, and indicators.
- (h) Detail reports created by department staff with data content. Describe when department reports are completed and released, including reports kept within the department.
- (i) Assess whether programs access and/or acquire data from entities external to the department (including other state agencies). Detail the frequency, source, and type of data acquired externally.
- (j) Identify issues related to data ownership.
- (k) If the program works with data files, determine whether the program has specified processes for the cleaning, manipulation, storing, releasing and reporting of data.

**(2) Qualitative assessment-** a descriptive assessment should be carried out to identify needs complimentary to baseline metrics, but that may not be quantifiable.

- (a) Deduce the need for department data cleaning, analysis, storing, and releasing and reporting standards.
- (b) Assess staff impressions of departmental use of data. Compile opinions of the strengths and weaknesses of departmental use of data.
- (c) Examine staff understanding of the department's data release confidentiality policies. Assess how well staff comply with existing policies. Identify barriers in compliance with data release policies.

C) Evaluate and identify the business needs of the Environmental Public Health Tracking (EPHT) program related to the Data Warehouse. Integrate the needs of EPHT into the Data Warehouse business needs assessment.

- i) Examine the Environmental Public Health Tracking (EPHT) program standards provided by the Centers for Disease Control and Prevention (CDC).
- ii) Review the goals and objectives in the EPHT strategic and operational plan and integrate both the EPHT program standards and relevant goals and objectives into the DWH business needs assessment.

- D) Conduct a needs assessment with the DWH external users comprised of local public health agency staff, general public, and researchers. Subgroups of the external users include- local public health agency staff, general public, environmental health users, and researchers including representatives from Iowa academic institutions.
- i) Five members of each subgroup must be present at the time the survey is carried out. IDPH will identify the persons in each subgroup prior to the survey process.
  - ii) Survey each of the subgroups to ascertain data needs as relevant to the DWH.
  - iii) Develop the process, tools, methodology, and best strategy for conducting the subgroup-level surveys.
  - iv) Evaluate local public health use of the current DWH application.
  - v) Define the present and future needs of the types of external users.
- E) Provide a detailed final report for the first phase of work with recommendations from the business needs assessment for how the DWH may be modified to address the needs of current and future users. The final report must address, but is not limited to the following:
- i) Detail how the current DWH meets the data needs of present users. Consider application functionality, data content, and reports generating capability.
  - ii) Outline and prioritize additional functionality that would meet the business needs of the users surrounding data display- reports, graphing, mapping, data file exporting, etc.
  - iii) Detail and identify current and future user business needs, as determined by the survey process, and provide recommendations for how to modify the DWH to meet those needs.
  - iv) Outline advantages and disadvantages for the development of a public access portal built into the DWH.
  - v) Define most appropriate user levels including abilities and permissions of each level.
  - vi) Address whether the DWH should include the ability to serve as a centralized repository for raw, unmodified data.
  - vii) Assess current staffing in IDPH dedicated to maintenance and future development of the DWH. Include an assessment of technical capacity.
- F) For the first phase of work, the applicant will provide IDPH with all tangible tools used in all aspects of the business needs assessment and a description of the processes and methodology for the survey and analysis of the results in the business needs final report.
- II) The applicant will conduct additional assessments and will complete additional plans as described. The scope of work for this objective may be altered to meet the goals and objectives of the DWH Strategic and Operational Plan.**
- A) Develop a data integration plan, including methodology for prioritizing program-level data for inclusion in the DWH.
- i) Conduct a multi-faceted review of IDPH datasets, data ownership and utilization, application user roles, and data needs related to the DWH.
  - ii) Identify and detail the attributes of datasets described in a 2008 assessment. Identify datasets that were not included in the 2008 assessment and those that may have been created since 2008.

- iii) As part of the existing and new dataset review, characterize specified attributes for each dataset including but not limited to data stewards, dataset composition, timing of updates, and responsibility for verifying final data releases. The applicant will review datasets in all IDPH programs. Additional scope and content of dataset review will be agreed upon by IDPH and the applicant.
  - iv) Develop the process, tools, and methodology for conducting the review. The applicant will provide the templates used in the review and will detail methodology for conducting the review in the data integration plan.
  - v) Consider improved efficiency as an outcome when prioritizing datasets.
  - vi) Evaluate Environmental Public Health Tracking (EPHT) data required for integration into the DWH.
    - (1) Review and document the current list of Nationally Consistent Data and Measures (NCDM) required for inclusion into the DWH. Parse data origin by source and detail using the same methodology used for internal dataset review. Also consider how the data come into the department, who manages the dataset, and whether it is reported to entities outside of the DWH application (e.g., Environmental Protection Agency).
    - (2) Determine best practices for maintaining and sustaining connections to key datasets that involve external entities.
- B) Work with IDPH staff to define business requirements for a public portal in the DWH and provide a plan for integration of the requirements.
- i) Review of the CDC-provided standards and recommendations for the public access portal.
  - ii) Work with the DWH staff, Information Management staff, and the EPHT team to define business requirements for the development of a public portal.
  - iii) Provide an actionable plan that includes specifications and requirements for the public portal.
- C) Create a master map of the data housed in IDPH applications
- i) Review all IDPH maintained and/or supported database applications. Detail each application's dataset content, ownership, and other specifics as defined by IDPH.
  - ii) Examine data sources and rate datasets in terms of quality/integrity.
  - iii) Provide a detailed report of the data analysis acquired in the review of the applications.

## Appendix D- Communication and data flow algorithms

### Introduction

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The purpose of the communication plan is to ensure relevant, accurate, and consistent information about the data warehouse initiative is communicated to the program team and stakeholders.

The communication plan provides a framework to manage and coordinate the wide variety of communications that take place during the project.

### Communication Objectives

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Effective and open communications is critical to the success of the IDPH Data Warehouse.

The key communication objectives for the project are:

- Provide accurate and timely information about the program
- Promote and gain support for the IDPH Data Warehouse
- Develop position-based communication flows
- Ensure a consistent message
- Encourage use of project management best practices

### Key Staff

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#### **Data Warehouse Coordinator (Business lead, Bureau of Communication and Planning) - Meg Harris**

Description of duties: The coordinator provides leadership and functional oversight for the Data Warehouse. She serves as business lead, conducts assessments of department data needs, develops detailed project plans, and coordinates the Oversight Team and Lead User groups. She also collaborates with other divisions to assure integration of appropriate and priority datasets.

#### **Data Warehouse Technical Lead (Information Management) - Michelle Lenerz**

Description of duties:

#### **Database Administrator (Information Management) - TBD**

Description of duties:

### Oversight Committee

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Purpose: Provider high-level decision making and guidance to the staff responsible for the Data Warehouse maintenance, enhancements, and expansion.

#### ***Standing appointments:***

1. Deputy Director - Mary Jones
2. Division Director- Marcia Spangler, Administration and Professional Licensure
3. Data Warehouse Analyst, Bureau of Information Management - Michelle Lenerz
4. Data Base Administrator, Bureau of Information Management - Jeff Hoyem
5. Performance Improvement Manager, CAP Bureau - Jonn Durbin
6. Data Warehouse Coordinator, CAP Bureau – Meg Harris

#### ***Rotating appointments (2 years, initial terms will be staggered to ensure continuity):***

1. Ousmane Diallo, Behavioral Health
2. Ann Garvey, ADPER

3. Aaron Swanson, Tobacco
4. Jill Lange, HPCDP
5. Debbie Kane, Health Statistics
6. Environmental Health Tracking grant coordinator- TBD (Carmily Stone- interim)

Types and frequency of communication:

- Quarterly in-person meetings
- Additional meetings as needed

## User Group

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Purpose: Provider user-level decision making and guidance to the staff responsible for the Data Warehouse maintenance, enhancements, and expansion.

Target number of members:

- 10 representatives from local public health agencies
- 5 representatives from IDPH

Current members:

- 8 representatives from local public health agencies
  - Sheri Bowen, Mills County (Region 4)
  - Chris Estle-Tedrow, Jefferson County (Region 5)
  - Chris Frantsvog, Polk County (Region 1)
  - Kevin Grieme, Siouxland District (Region 3)
  - Linda Klehm, Wright County (Region 2)
  - Peg McNally, Palo Alto County (Region 3)
  - Lisa Swanson, Black Hawk County (Region 6)
  - Amy Thoreson, Scott County (Region 6)
- 5 representatives from IDPH
  - Meg Harris, Bureau of Communication and Planning
  - Donna Johnson, Center for Health Statistics
  - Michelle Lenerz, Information Management
  - Barb Vos, Bureau of Local Public Health Services
  - Jonn Durbin, Bureau of Communication and Planning

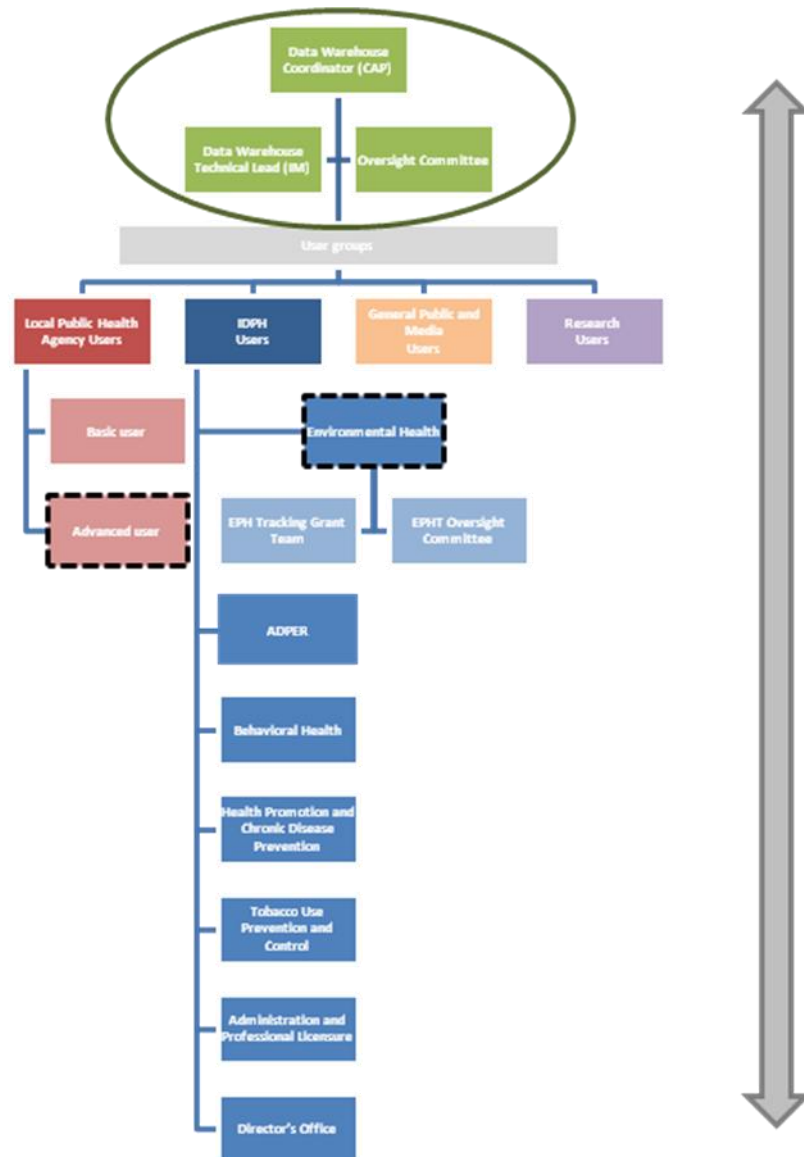
Member responsibilities:

- Identify or approve public health indicators to be included in the data warehouse
- Guide functionality and capabilities for reports and data retrieval
- Actively participate in discussions and provide input and feedback
- Distribute information about the data warehouse as appropriate to others in the organization

Types and frequency of communication:

- One annual in-person meeting (IPHA Conference)
- Quarterly conference calls

## Communication Structure



## Data Flow

