

Section E: Technology Tools

Use of Technology in Shared Service Arrangements

Health officers in the Northwoods Shared Services Project stated that technology (equipment and software) was being used effectively to plan, implement and improve cross-jurisdictional sharing arrangements.

Some of the technology tools that health officers mentioned as being helpful for shared service arrangements include:

- Email
- Websites
- Teleconferencing with recording feature
- Web conferencing and training (Adobe Connect, Live Meeting)
- Electronic calendaring (Microsoft Outlook)
- Scheduling software (Doodle)
- Survey programs (Survey Monkey, Qualtrics)
- Newsletters (Constant Contact, Mail Chimp)
- Google products (Google Hangout, Google Docs, Google Drive).

Health officers emphasized that information technology support and training is essential and should be budgeted for in cross-jurisdictional sharing arrangements. One health officer noted that laptops and tablets help staff that travel out of the county access data systems and email.

While most health officers appreciated the opportunity to attend meetings by teleconference or web conference to cut down on travel time and costs, they also emphasized the importance of relationship building that occurs through periodic face-to-face meetings. (NSSP: Interviews with Health Officers, 2013)

"Technology helps make the world smaller"

Gary Garske, Health Officer, Portage County

"It (technology) is necessary because of the largeness of the region. You don't want to do all by technology; you keep the relationship in face-to-face meetings."

Mary Rosner, Public Health Officer, Marinette County

Technology Tools

Following is discussion of three technology tools found to be particularly useful for sharing arrangements in the project area.

Tool Summaries

Excel

Excel is part of the Microsoft Office suite and deals primarily with spreadsheets. Excel's strength is in data analysis and presentation and can be highly useful for many public health topics.



Technology Tools -
Excel

Google Drive & Docs

Google Drive is an online file storage, sharing, and collaborative editing tool. It lets you store up to 15 Gigabytes of data free, with reasonable payment plans for larger amounts.

Google Docs is a component of Drive, and is Google's office suite, similar to Microsoft Office. The following are the tools that are available in Google Docs:



Technology Tools -
Google Drive & Docs

Online Surveys

Gathering data is a critical step in considering a shared service. One invaluable tool to help make this task more effective is online surveys. Many online survey systems are free and user-friendly, so implementing them is relatively easy to do, and their use will quickly become indispensable.



Technology Tools -
Online Surveys

Technology Tools - Excel

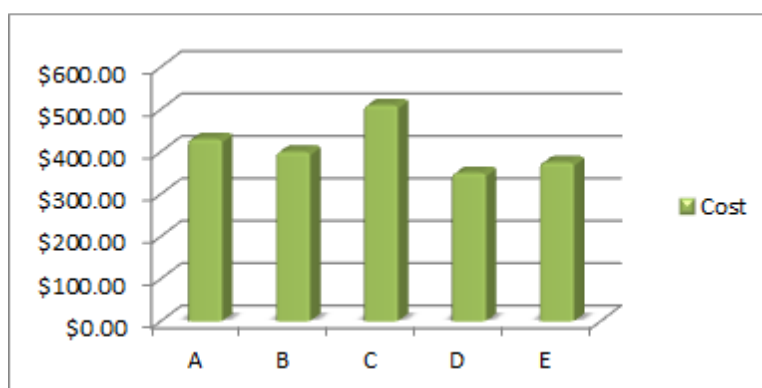
Excel is part of the Microsoft Office suite and deals primarily with spreadsheets. Excel's strength is in data analysis and presentation and can be highly useful for many public health topics.

Excel's Top Features

- Functions:** Functions are Excel's most important feature. At a basic level, functions are a math or logic operation that can be performed on data in the spreadsheet to do things such as adding two values together, taking text from two columns and combining it, or subtracting dates to get the number of days between them. Functions automate data dynamically, meaning when something in the spreadsheet changes, every piece of information tied to it through functions changes automatically.
- Conditional Formatting:** Conditional formatting allows you to set up instructions that will trigger the formatting of cells colors or text formatting when the condition that you set occurs. Some examples of conditional formatting include finding duplicate values, highlighting cells that are greater than a given value, or coloring data on a color scale based on the values.
- Sorting:** When set up properly, data in Excel can quickly be sorted based on many different things, such as sorting names alphabetically, dates from old to new, or numbers from high to low, while keeping all relevant data together.
- Filtering:** Filtering is similar to sorting in that allows you to show or hide rows based on criteria you specify, but it does not actually affect the underlying data, allowing you to maintain original data while still showing only what you want.
- Charting:** Charts allow you to display data as an image that can quickly be used to analyze options or see trends. There are many chart types in Excel, including column, line, pie, bar, area, and scatter; in addition to these, it includes some specialized charts. Normally, charting simple data is as easy as selecting the appropriate cells and inserting the chart - Excel will do most of the work of figuring out where the data needs to go.

Cost
\$430.00
\$400.00
\$510.00
\$350.00
\$375.00

Conditionally formatted data using color bars.



Data charted with a bar chart.

- **PivotTables:** PivotTables let you analyze large amounts of data quickly by setting up columns and rows based on data in the workbook. Data can then be dynamically categorized and displayed to show useful information or trends, such as how many occurrences of a particular disease happened by region or age.
- **Extensibility & Automation:** Excel is fully extendable using a programming language called Visual Basic for Applications (VBA) or macros. These become useful if there is no built-in function that performs the task that you need.

Specific Excel Example: Fiscal, Service & Staffing Implications

Below is an example of a formatted Excel spreadsheet that makes use of formulas to calculate sums and averages automatically for the user. The key explains what the color coding is used for: orange is for text, blue is for number entry, and green is a calculated field, which automatically fills based on what is entered in the fields above.

	Health Department A	Health Department B	Health Department C	Health Department D	Total	Average
Current Arrangement						
Description of Current Service, include any variables between Health Departments						
Current Population Served by Program					-	-
Units of Service					-	-
Geographic Area (Square Miles)					-	-
Grants, program-generated income, donations and tax levy for program					-	-
Indirect allocation for program (\$)					-	-
Total program costs (personnel, operating, capital)					-	-
FTEs for program (direct)					-	-
FTEs (in-kind)					-	-
FTE/Person in Population	-	-	-	-		
Total cost(\$)/population	-	-	-	-		
Total cost (\$)/units of service	-	-	-	-		
Proposed Shared Arrangement						
Proposed Service to be Offered by Shared Arrangement						
Proposed Population to be Served by Shared Arrangement					-	-
Units of Service					-	-
Geographic Area (Square Miles)					-	-
Grants, program-generated income, donations and tax levy for program					-	-
Indirect allocation (\$)					-	-
Total costs (personnel, operating, capital)					-	-
FTE for program (direct)					-	-
In-kind for program (FTEs)					-	-
FTE/Person in Population	-	-	-	-		
Total \$/population	-	-	-	-		
Total \$/units of service	-	-	-	-		
Note: Sheet protection password is blank						
	Color Codes					
	Text Entry					
	Number Entry					
	Calculated Field					
	N/A					

More Information

- Excel Online Help - <http://office.microsoft.com/en-us/excel-help/>
- Introduction to Excel for Public Health (A free online course that teaches information about Excel, with a specific emphasis on public health) - <http://www.phtc-online.org/learning/pages/catalog/excel/default.cfm>
- Preparing Data in Excel - http://www.unmc.edu/publichealth/ccorda_hlp_excel.htm

Technology Tools - Google Drive & Docs

Google Drive is an online file storage, sharing, and collaborative editing tool. It lets you store up to 15 Gigabytes of data free, with reasonable payment plans for larger amounts.

Google Docs is a component of Drive, and is Google's office suite, similar to Microsoft Office. The following are the tools that are available in Google Docs:

- Document
- Presentation
- Spreadsheet
- Form
- Drawing

In addition, the tools are expandable with other sites that integrate with Google Docs, and Google is always expanding on the current tools and adding new ones.

Collaborating via Google Drive

Several strengths that Google Drive & Docs has may come into play over traditional office software:

- **Always Available:** The files you store on Google Drive are always available, as long as you have an internet connection. In addition, even if you are not on a computer with Microsoft Office, you can use Google Drive's built in tools to edit a document through a web browser anywhere.
- **Sync:** Google provides a program you can download that will automatically synchronize all of your documents between computers, other devices, and Drive. This means that as long as you have an internet connection, all of the documents you have will be available and synced on all of your devices simultaneously.
- **Sharing:** Google Drive allows you to share a single document with one or many people simultaneously. In addition, there are different editing levels, such as view only, edit, and total control. Sharing allows you to quickly distribute a document for others to view and edit, and allows you to get around the traditional limitations of e-mail systems, namely attachment size limits.
- **Collaboration:** A huge strength of Google Drive is the ability to have multiple people edit a document simultaneously and in real time. This means when you view a shared document that others are working on, it is the same document everyone else is seeing, with all of their changes made. Editing in this manner has the advantage of everyone working off the same document at the same time and not independently. This helps avoid problems such as someone working from an old draft by mistake.

Specific Example: Master Sharing Grid

The example provided is from a spreadsheet that was created with the intent to show all of the sharing arrangements that every health department in the grant area had. It required reviews and editing from three separate people, so the document was put onto Google Drive and shared with the three people that needed access.

To the right is an image of the revision history from the document, showing the various edits made, who made them, and when. Another feature of Google Docs is that it saves a history of every edit made within a document, allowing someone to go back and review the document before a change was made and revert it, if necessary.

The advantage in this case was that when someone made a change, it was immediately visible to everyone else in the document. This prevented editing "collisions" that might have happened with a more traditional editing approach: e-mailing the document, making changes, and e-mailing back to have changes incorporated by one central person.

More Information

The following sites have more information about using Google Drive & Docs:

- Google Drive - <https://drive.google.com/>
- Google Drive Help - <https://support.google.com/drive/>

Google Drive Alternatives

The following services are free and provide at least an online storage component, but most do not have an editing suite to go with it:

- Dropbox - <https://www.dropbox.com/>
- Box - <https://www.box.com/>
- Microsoft OneDrive - <https://onedrive.live.com/> (OneDrive does provide some editing ability, but only with Office 365)
- SugarSync - <https://www.sugarsync.com/>
- SpiderOak - <https://spideroak.com/>

Revision history	
Mar 24, 2:25 PM CT	Jonathan Schmunk
Mar 24, 2:24 PM CT	Jonathan Schmunk
Mar 24, 2:23 PM CT	Jonathan Schmunk
Mar 24, 2:23 PM CT	Jonathan Schmunk
Mar 24, 2:22 PM CT	Jonathan Schmunk
Mar 3, 7:32 PM CT	Mary Hilliker
Mar 3, 7:20 PM CT	Mary Hilliker
Mar 3, 7:12 PM CT	Mary Hilliker
Mar 3, 6:43 PM CT	Mary Hilliker
Mar 3, 6:38 PM CT	Mary Hilliker
Feb 28, 12:34 PM CT	chris.dobbe
Feb 28, 12:17 PM CT	chris.dobbe
Feb 28, 11:59 AM CT	chris.dobbe
Feb 28, 11:42 AM CT	Jonathan Schmunk

Technology Tools - Online Surveys

Gathering data is a critical step in considering a shared service. One invaluable tool to help make this task more effective is online surveys. Many online survey systems are free and user-friendly, so implementing them is relatively easy to do, and their use will quickly become indispensable.

Online Survey Advantages

Online surveys have several advantages that help aid with gathering and analyzing data:

- Data is gathered into one central location. This saves time, because no one is required to collect and aggregate responses from different sources and media types (e-mails, letters, phone calls, etc.).
- Data is validated. When creating an online survey, you can easily specify if a question needs to be answered and/or formatted in a specific way by the survey taker. Some examples of validation are:
 - Requiring an answer before continuing the survey (ex: Name and E-mail).
 - Length (either a minimum or a maximum number of characters. This is often used for “open-ended” responses).
 - Content (ex: a valid e-mail address, date, or phone number).
 - Data Type (ex: numbers only or text only).
 - In addition to those above, most survey software allows you to create custom validation, allowing you to specify almost any sort of response requirement.
- Most survey software includes built-in analysis tools, but data can also be downloaded and analyzed in a separate program, such as Excel.
- The data gathered is stored in one location online, so you can access it anywhere and can go back and look at it later, if needed.

Specific Example: RSVP Survey

One specific example that may be used is to have respondents RSVP to an event using an online survey. Standard questions used for this are the respondent’s name, whether or not they are attending, a meal preference (if applicable, including dietary restrictions), and other comments.

Advantages of using an online survey to RSVP:

- Using an online survey to RSVP allows respondents to choose a time when it is convenient for them to sign up.
- Online surveys allow for an automatic open and close date, so deadlines do not have to be manually enforced.
- Data is collected automatically via the software, so there is no need to open letters, read e-mails, or take phone calls from respondents and then collect responses. In addition, respondents can only answer questions how you specify, so it makes it easier to get quick counts.

- If you do not have specific invitees to an event, you can make an open survey link and send it out to a large e-mail list to gauge interest.
- After the results are in, it is quick to analyze the data and get the information you need using the online software or Excel.

RSVP Survey Example Image

The image shows a screenshot of an online survey form titled "Example RSVP". The form has a dark blue header with the title in white. Below the header, there are four main sections:

- *1. Name:** A single-line text input field.
- *2. Agency:** A single-line text input field.
- 3. Do you have any special dietary restrictions or requirements?** This section contains two radio button options: "No" and "Yes (please specify)". Below the "Yes" option is a single-line text input field for specifying details.
- 4. Comments:** A large multi-line text area for providing additional feedback.

At the bottom center of the form is a grey button labeled "Done".

Online Survey Websites

- Qualtrics - <http://www.qualtrics.com/>
- SurveyMonkey - <https://www.surveymonkey.com/MySurveys.aspx>
- SurveyGizmo - <http://www.surveygizmo.com/>
- Murvey - <https://www.murvey.com/>
- KwikSurveys - <http://www.kwiksurveys.com/>
- Free Online Surveys - <http://freeonlinesurveys.com/>

Section F: Recommendations

Top Ten Considerations for Entering Into a Sharing Arrangement

1. Constituents, directly or indirectly, benefit from the sharing arrangement.
2. The cross-jurisdictional service improves public health capacity, makes it more likely that the jurisdictions involved can meet national public health accreditation standards, add a new service, improve an existing service and/or make better use of resources and expertise.
3. Partners and stakeholders have trust, a history of working together successfully, and mutual interests.
4. Clear goals and measureable outcomes can be agreed upon by the partners/stakeholders.
5. There is fairness in service levels and financial contributions for all partners in the agreement.
6. There is a clear fiscal benefit to the cross-jurisdictional sharing compared to providing the service/program independently. Clear fiscal benefits might include one or more of the following: an improvement in the service, a reduction in costs, no increase in costs, reduction in the rate of increases in program/labor/equipment costs, a decrease in capital costs, and the addition of a needed service that would be more expensive to do independently.
7. Partners can agree on how the service/program is implemented, including the service level in each jurisdiction.
8. The service/program is evidence-based/standard practice and is delivered in a way that meets the quality expectations of each jurisdiction in the partnership.
9. Partners are willing to enter into a formal agreement, and have reached consensus about member responsibilities and roles.
10. A collaborative leadership structure is used to govern the agreement.

Intervening When Things Aren't Working Well

The existing shared service arrangements that aren't going as well as would be expected might look to the factors for successful shared arrangements to improve existing services. While it's difficult to make up for a lack of financial resources that are sorely needed to provide an adequate service, partners can look to other success factors.

If problems arise in a shared service arrangement, the partners/stakeholders can systematically work through the key questions below as a means of pinpointing the issue and understanding how to solve it. It is important for partners/stakeholders to work through problem-solving processes in an open, transparent and non-judgmental environment.

Questions for problem-solving strategy sessions:

- Is there a shared understanding about the reason(s) to have a shared service arrangement? Is there agreement on annual goals?
- Are there measurable outcomes and expectations of the shared service?

- Is there an annual work plan that is agreed upon by the key partners/stakeholders?
- Is there a fair level of service in each jurisdiction based on agreed upon criteria such as population and financial resources invested?
- Is there an agreed upon process between the partners for evaluating staff, the service level and delivery methods, outcomes, communications and collaborative processes?
- Is a collaborative leadership structure used?
- Does the project leader provide regular updates during the year on the progress of the project?
- Can internal and external communications be improved to further engage all partners, stakeholders, and staff in the shared service?
- Is staff adequately experienced in project management and collaborative leadership, and if not, is there a mentoring process in place or educational opportunities available to help them gain the needed skills?
- Is there a written agreement between the partners? Is there an opt-out clause in the written agreement?
- When the CJS arrangement is state-mandated or directed, is there an opportunity to provide input into the natural partnerships, goals, expectations and work plans?

Common Issues and Possible Solutions

Issue: Partners in the arrangement feel that they don't have an adequate voice in the arrangement, including participation in development of goals, objectives, outcomes or the service delivery model.

Solutions:

- The style of leadership used for any shared arrangement is critical to the success. Top-down and authoritative approaches from a fiscal agent are less desirable than collaborative approaches where stakeholders feel that they have some control over what happens as a whole, as well as in their particular jurisdiction.
- Regular meetings, either by conference call or in person, are important for fostering communication and resolving conflicts.
- Collaborative agenda development for regular meetings can bring issues to the forefront for discussion.
- Involve partners in the development of annual feedback tools and customer surveys. Use the results of an annual feedback tool to discuss improvements needed.
- Engage partners in annual planning processes (goals, objectives, and measurable outcomes), budget discussions and staff performance assessments.

Issue: Coalition-building is less effective in a cross-jurisdictional sharing arrangement model.

This issue was identified in interviews with health officers around the state tobacco control program's mandate of multi-county coalitions. The issue is further complicated by multiple factors including inadequate funding for single county coalitions.

Solutions:

- Multi-county coalitions might look to what can be improved within their current cross-jurisdictional sharing arrangements, utilizing principles that improve success of cross-jurisdictional sharing and effective coalition building.
- The multi-county coalition partners can have honest discussions about what outcomes are possible with limited funding and large geographic distances.
- The partners can look for ways to increase local involvement. One multi-county coalition used mini-grants to fund partner agencies for local tobacco-control and coalition-building activities.
- Local health departments may also need to continue to communicate and educate state program staff and their respective division chiefs and cabinet appointees about reasonable and natural geographic groupings for shared services as well as reasonable expectations for goals, outcomes and service levels for current levels of funding.

Issue: Staff Inexperience

Staff inexperience or style can be a sensitive issue since most shared agreements provide for the fiscal agent to do the recruitment, hiring, supervision, and performance evaluation of staff.

Solution:

- Collaborative approaches with the other key partners in the sharing arrangement may be used in the hiring process (serving on the interview panel), mentoring (especially related to their jurisdiction's unique geography and culture), as well as in performance assessments (providing feedback in advance to the lead agency supervisor).

Issue: State-mandated Service Arrangements That Aren't Ideal

Influencing state-mandated service arrangements may be quite challenging. State programs may mandate sharing due to inadequate resources to fund each jurisdiction. Political forces outside of the state program may also influence programs in ways that are unchangeable under a given administration.

Solutions:

- Communicate with state program staff and their respective division chiefs and cabinet appointees about reasonable and natural geographic groupings for shared services and reasonable expectations for goals, outcomes and service levels for specific levels of funding.

- Local public health leaders and policymakers can continuously seek out opportunities to educate state administrators and policymakers about how to improve public health services at the local level.

Issue: The arrangement can't be salvaged.

Solutions:

- When arrangements aren't working and don't look like they can be remedied, it's important to develop an opt-out plan that gives all partners/stakeholders time to adequately provide needed services.
- De-briefing about what worked well and what didn't can be an important step in helping the stakeholders work together better in the future.

Policy Conditions That Support Shared Services

Adequate Public Health Funding

A commitment to adequately fund public health is first and foremost a critical condition for the success of shared services. An American Public Health Association report ranked Wisconsin 47th in the nation for spending to meet public health needs (The state of public health in Wisconsin, 2013). Most county and tribal public health agencies in Wisconsin operate in a chronic climate of scarce resources at a time when there is pressure to continually cut local government funding while constituents/taxpayers expect the same or higher level and quality of service.

In conversations with local policymakers, one policymaker stated the importance of all jurisdictions in an arrangement adequately funding public health. This particular policymaker didn't want his county to take on undue burden in providing public health services in a jurisdiction where policymakers weren't committed to funding local public health.

Distribution of Funding

Federal and state public health funding that supports the best possible scenario for improving public health at the local level is ideal. Improving local public health capacity could be a primary objective in how funding is distributed.

Formation of Natural Partnerships through Self-Selection

Shared service arrangements can be considered when local health departments/agencies feel that they could make better use of resources in such an arrangement. When conditions exist that may warrant a shared arrangement, state and federal funding sources, public or private, can support natural partnerships to form. No one knows a community like the people that live and work in it. The local community is in the best position to determine the geographical configurations and cultural considerations at play that work best when entering into cross-jurisdictional sharing arrangements.

Arbitrary arrangements for sharing determined at the state or federal level are less likely to be accepted and successful. The politics of culture and place, accessibility for clients based on geography and transportation, history of sharing between jurisdictions, and the input of local health departments and tribes can be taken into account by funding agencies that are considering mandating sharing arrangements for programs.

"Sometimes it needs to be state mandated to get through the political or legal concerns but you lose local input into how it should look."

Mary Rosner, Public Health Officer, Marinette County

"You choose your partners who are natural fits. Consider who you work well with and/or if you have common issues. The State (of Wisconsin) uses geography and that may or may not be the best fit."

Zona Wick, Health Officer, Iron County

Incentivize Sharing Arrangements and Support Longer Funding Cycles

When resources are scarce, state and federal funding that incentivizes sharing arrangements can help strengthen local public health capacity. Start-up funding for new sharing arrangements can help counties and tribes adequately prepare to make the arrangement successful.

Funding sources, public or private, that are at least 3 – 5 year funding cycles, improve the ability of a new shared service arrangement to plan, implement and sustain public health services.

Next Steps

Public health is at a critical time where resources are scarce, challenging public health problems need to be addressed, and future staff shortages are predicted, especially in some areas of the state. Cross-jurisdictional sharing arrangements may be a way to recruit the staff expertise needed and provide high quality public health services in an environment of scarcity.

Planning for the success of a shared service arrangement is crucial. Lessons can be learned from the experiences of other local government services, other local public health agencies around the country, and from the vast experience of policymakers and health officers in the project area who are already working together successfully for many shared government services.

Health officers in the project area have already identified the kinds of programs or services that seem to work well as a shared service. All parties might look for opportunities for doing more together if it seems like it would better serve the constituents in the jurisdiction and fit with the agency's mission and vision.

Opportunities often present themselves when:

- A staff person leaves or retires and it will be difficult to recruit for the position.
- Funding changes in such a way that makes it difficult to go it alone.

- The community or agency wants to improve public health capacity in a focus area that would be difficult without pooling resources and expertise.
- A new grant or funding becomes available that encourages sharing across jurisdictions.
- Service currently provided is so unacceptable that stakeholders come together to demand something better for their constituents.

The next steps may be to hold discussions with natural partners around areas of potential sharing for the future and to revisit those discussions and possible opportunities every 4 – 6 months with an eye to timelines for local budgets. It's important to keep in mind that partners and stakeholders will want to discuss feasibility well in advance of entering a new agreement. The feasibility or *Explore* phase may take several months for all stakeholders to work through together, at their agency, and with their policymakers. Adequate planning in the *Explore* phase lays the foundation for the *Prepare and Plan* and *Implement and Improve* phases of a successful cross-jurisdictional sharing arrangement.

Section G: Literature Review and References

Literature Review and References

2013 National Profile of Local Health Departments. Washington, DC: National Association of County & City Health Officials, January 2014. Available at http://nacchoprofilestudy.org/wp-content/uploads/2014/02/2013_National_Profile021014.pdf.

Description: Chapter 2 of this report details the status of governance and partnerships among local health departments in the United States.

2013 National Profile of Local Health Departments: Wisconsin. Washington, DC: National Association of County & City Health Officials, 2013.

Description: The summary brief describes the status of governance, programs and services, activities, finance and workforce of local health departments in Wisconsin.

A Framework for Program Evaluation. Atlanta, GA: Centers for Disease Control and Prevention, Program Performance and Evaluation Office, accessed February 17, 2014. Available at <http://www.cdc.gov/eval/framework/index.htm>.

Description: This online resource defines evaluation in public health and is a practical framework for evaluation with examples and tools.

A Roadmap for Government Transformation. WI: Local Government Institute of Wisconsin, February 2010. Available at www.localgovinstitute.org/sites/default/files/LGI%20Roadmap%20Final%20Report_0.pdf.

Description: This report identified six factors that contribute to the success of efforts to transform the delivery of public services within an area, notably: trust between leaders, shared perception of need, clear fiscal benefit, improved service quality, collaborative leadership and community support.

A Roadmap to Develop Cross-Jurisdictional Sharing Initiatives. KS: Center for Sharing Public Health Services, November 2013. Available at www.phsharing.org/wp-content/uploads/2013/12/RoadmapBrochureV2.pdf.

Description: This reference describes three phases in the evolution of cross-jurisdictional sharing arrangements, including the exploration or feasibility phase, the prepare and plan phase, and the implement and improve phase. Each phase is divided into major areas that need attention and consensus in developing, implementing and evaluating shared services.

Baker N, Kerik K. *A Guide for Local Boards of Health Considering the Feasibility of a Consolidation of Independent Local Public Health Jurisdictions.* Bowling Green, Ohio: National Association of Local Boards of Health, 2009.

Description: This report discusses guiding principles for effective public health services and considerations for consolidation of public health departments. These same guiding principles and considerations may also be useful when planning for shared services.

Berg J. *Considering Consolidation to Build Stronger Local Health Departments*. Master's Paper submitted to the University of North Carolina at Chapel Hill. Available at <https://cdr.lib.unc.edu/record/uuid:74ad8e25-9042-4a17-8fbd-4f09b8596611>.

Description: This paper discusses benefits, concerns and barriers associated with consolidation of local health departments. Some of the principles applicable to consolidation processes can be used to improve shared public health services.

Berkery, M., Penn, M. and Moulton, A. *An Overview of Legal Considerations in Assessing Multi-jurisdictional Sharing of Public Health Laboratory Testing Services*. Atlanta, GA: Centers for Disease Control and Prevention and Laboratory Efficiencies Initiative, 2012. Available at www.cdc.gov/phlp/docs/APHL_Conference_LEI_Report_508.pdf.

Description: This report is for public health departments that have public health laboratories. It is a resource to explore potential legal issues related to sharing testing services with other jurisdictions.

Burns T, Yeaton K. *Success Factors for Implementing Shared Services in Government*. Washington DC: IBM Center for The Business of Government, 2008. Available at www.businessofgovernment.org/sites/default/files/BurnsYeatonReport.pdf.

Description: Five key factors for successful implementation of shared services in government are described, including: strong project management skills, senior level support, effective communication, strong change management and a phased approach to implementation. The report details key lessons learned and best practices for implementing shared services, mainly in financial and business services, human resources and technology.

Communications Planning. Washington, DC: National Association of County and City Health Officials, 2014. Available at <http://www.naccho.org/advocacy/lhdcommunications/planning/index.cfm>.

Description: This online primer describes a step-by-step process for the seven essential elements of a communication plan. Public health examples are provided.

Community Tool Box. Lawrence, KS: University of Kansas, Work Group for Community Health and Development, 2014. Available at <http://ctb.ku.edu/en/table-of-contents>.

Description: A website with 46 chapters providing practical step-by-step guidance, examples, and power point presentations on program planning and evaluation – logic models, action plans, and numerous other tools. Chapter 9, Section 1 contains useful information on organizational structure and Chapters 36 – 39 cover evaluation.

District Health Planning Toolkit. Cambridge, MA: Boston University School of Public Health, 2013. Available at www.bu.edu/regionalization/537-2/tools/.

Description: This web-based toolkit provides resources for district health planning in Massachusetts. While some materials aren't applicable to Wisconsin, the toolkit provides local health departments with useful materials for planning for and evaluating shared services including specific sections on: initiating the discussion and engaging stakeholders, exploring the details, assessing the options, determining a legal structure, determining fiscal structure and performance management. The discussion on engaging stakeholders is brief but very helpful in thinking about the initial stages of organizing.

Elsass D. *Merger of City-Village Services: Best Practices*. Madison, WI: UW-Extension Local Government Center, 2003. Available at lgc.uwex.edu/Intergovt/bestpracticesbook.pdf.

Description: Wisconsin has a strong tradition of local control. This report provides best practices and lessons learned from service mergers of specific local government services in Wisconsin counties, cities and villages. Mergers of government services in Wisconsin can provide important lessons that can be applied to possible sharing agreements for public health services.

Epilogue: The Consolidation of the Health Departments in Summit County, Ohio. MA: Harvard Kennedy School, John F. Kennedy School of Government, 2012. Available at <http://www.phsharing.org/wp-content/uploads/2013/02/Summit-County-Epilogue-1-23-13.pdf>.

Description: This briefing report is a succinct review of the process, challenges, and outcomes of the consolidation of three health departments including perspectives on staff integration, client services and public health capacity.

Evaluating the Initiative. Lawrence, KS: University of Kansas, Work Group for Community Health and Development, 2014. Available at http://ctb.ku.edu/en/evaluating-initiative#node_toolkits_full_group_outline.

Description: An online toolkit with succinct information about evaluating an initiative. The resource also includes examples of community project evaluations.

Evaluation Resources. WA: University of Washington School of Public Health, Northwest Center for Public Health Practice, accessed February 17, 2014. Available at <http://www.nwcphp.org/evaluation/tools-resources>.

Description: This online primer describes program evaluation tips, courses on logic models, data collection and analysis, and program evaluation basics.

Exploring Shared Service Collaboration in Wisconsin Local Public Health Agencies. WI: Institute for Wisconsin's Health Inc., 2009. Available at

www.instituteforwihealth.org/uploads/1/2/7/8/12783470/shared_service_principlesfinal.pdf.

Description: This working document states principles to guide discussions around shared public health services. The document was prepared following a June 24, 2009 meeting in Madison, WI of representatives from the Wisconsin Division of Public Health and each region of the Wisconsin Association of Local Health Departments and Boards.

Felton J Golbeck AL. "Interjurisdictional Collaboration: Local Public Health Officials Versus County Commissioners." *Journal of Public Health Management Practice*. 17(1): E14-E21. Available at

www.ncbi.nlm.nih.gov/pubmed/21135650.

Description: This survey of Montana local health officers and county commissioners may have some applicability to central and northern Wisconsin because of some common characteristics between Montana and central/northern Wisconsin including: smaller population density, rural county health departments and "home rule". In this survey, both health officers and county commissioners perceived benefits of collaboration as improved leadership, efficiency and public health capacity. The least appreciated benefits were increasing staff size, visibility, social capital, documentation of public health value and achieving accreditation. In other words, the more appreciated benefits focused on service delivery. The less appreciated benefits were focused on "softer" factors. Health officers and county commissioners differed in their perceptions of the potential barriers to collaboration. Health officers viewed local resistance factors as the main barriers. County commissioners viewed loss of control over resources and assets, state-level structure issues, challenging geography and small, widely dispersed population as main barriers.

Hodge, J., Kaufman, T., Jacques, C. *Legal Issues Concerning Identifiable Health Data Sharing Between Local Public Health Authorities and Tribal Epidemiology Centers in Selected U.S. Jurisdictions*. GA: Council of State & Territorial Epidemiologists, 2011. Available at

c.ymcdn.com/sites/www.cste.org/resource/resmgr/PDFs/LegalIssuesTribalJuris.pdf.

Description: This document provides information about the privacy, confidentiality and security of health data that may be applicable when there is data sharing between local public health authorities and tribal epidemiology centers. This report provides important questions that need to be explored in county-tribal sharing agreements.

Hornbeck, J, Budnik, A, Beechey, T., and Filla, J. *Consolidating Health Departments In Summit County, Ohio: A One Year Retrospective*. OH: Kent State University, College of Public Health, Center for Public Administration and Public Policy, 2012. Available at

www.odh.ohio.gov/~media/ODH/ASSETS/Files/lhd/Final%20SCPH%20Report.ashx.

Description: This report details a one year retrospective of a consolidation of the Summit County, Akron and Barberton health districts in Ohio. Lessons learned may be applicable to multi-jurisdictional sharing, especially for organizational functions such as information technology and human resources and for departments seeking to increase capacity and expertise. The report provides a realistic description of the perceived improvement and decline in service as a result of the consolidation.

Introduction to Program Evaluation for Public Health Programs: A Self-Study Guide. Atlanta, GA: Centers for Disease Control and Prevention, accessed February 7, 2014. Available at <http://www.cdc.gov/eval/guide/introduction/>.

Description: This online study guide is organized by the six steps of the *CDC Framework for Evaluation in Public Health*. Public health examples from local and state public health projects are used to illustrate main points.

Justeen Hyde, "Cross Jurisdiction Service Sharing: What Makes it Work," presentation slides shared with the Center for Shared Public Health Services. MA: Institute for Community Health, 2013. Available at www.phsharing.org/wp-content/uploads/2013/05/JHyde_Cross-Jurisdictional_Service_Sharing.pdf.

Description: This slide presentation provides an overview of considerations for shared services including the spectrum of possible arrangements, motivations, relationships, change management strategy, communication, developing indicators for success, implementation strategy and governance structure.

Kaufman, N. *Regionalization of Government Services: Lessons Learned & Application for Public Health Service Delivery.* WI: The Strategic Vision Group, 2010. Available at www.rwjf.org/content/dam/farm/reports/reports/2010/rwjf70952.

Description: Consolidation of government services has occurred in education, public safety (fire, police, preparedness), water and waste management and economic development. This report summarizes forms of collaboration, lessons learned across different government sectors on how to share services and best practices that can be applied to public health shared services. Case studies are presented, including the example of how regionalization at the North Shore Fire Department in southeastern Wisconsin between several municipalities also helped lead the way for shared library and public health services.

Konkle, K. *Exploring Shared Service Collaboration in Wisconsin Local Public Health Agencies: A Review of the Literature.* WI: Institute for Wisconsin's Health Inc., 2009. Available at www.instituteforwihealth.org/uploads/1/2/7/8/12783470/exploring_shared_services_literature_review_copy.pdf.

Description: This report summarizes driving forces for shared services including emergency preparedness, accreditation and economics. Examples of shared services and regionalization from Massachusetts, Illinois, Washington, DC, Kansas, Utah, Missouri, Connecticut and Wisconsin are provided.

Libbey, P. and Miyahara, B. *Cross Jurisdiction Relationships in Local Public Health: An Environmental Scan*. KS: Center for Sharing Public Health Services, 2011. Available at www.rwjf.org/content/dam/web-assets/2011/01/cross-jurisdictional-relationships-in-local-public-health.

Description: This is one of the most important reports to date on cross jurisdictional relationships in public health. It details factors that are driving interest in shared services. The results of the environmental scan offer a perspective on the issues, perceptions, readiness and barriers associated with shared services in 7 states.

Local Government Collaboration in Wisconsin: Case Studies. Madison, WI: Local Government Institute of Wisconsin, 2012. Available at www.localgovinstitute.org/sites/default/files/CaseStudies1212-Final_0.pdf.

Description: This publication is a set of case studies documenting local government collaboration around the delivery of services including animal control, building inspection, data services, environmental protection, land use, public safety, health, roads, waste management, parks & recreation, public works, records, purchasing, tax increment financing and transportation. A case study on the merger of the City of Beloit and Rock County Health Department is included.

Local Health Department Job Losses and Program Cuts: State-Level Tables from the 2013 Profile Study. Washington DC: National Association of County & City Health Officials, July 2013. Available at <http://www.naccho.org/topics/infrastructure/lhdbudget/upload/State-Tables-Brief-8-13-13.pdf>.

Description: This brief summarizes state-level data on workforce losses, program reduction/loss and budget cuts in local health departments during 2012.

Madamala, K. *Current & Planned Shared Service Arrangements Among Wisconsin's Local & Tribal Health Departments*. WI: Institute for Wisconsin's Health, Inc., 2012. Available at www.publichealthsystems.org/uploads/docs/KC13_1D_Madamala.pdf.

Description: This presentation summarizes the results of an online cross-sectional survey of 99 local and tribal health departments on current and future use of shared services.

Matt Stefanak, "Cross-Jurisdictional Sharing of Public Health Services: Some Financial Considerations," presented at the Sharing Services Learning Community Meeting, January 23, 2014, San Diego, CA. Presentation available at <http://www.phsharing.org/wp-content/uploads/2014/02/MStefanak-San-Diego-Presentation-Jan-2014.pdf>.

Description: This presentation describes key financial questions that should be considered in exploring cross-jurisdictional sharing arrangements.

Michelle Poche Flaherty, "Managing Change," webinar presented for the Center for Sharing Public Health Services, August 6, 2013.

Description: Take-away lessons from this webinar are summarized in the *Prepare and Plan* section of this toolkit.

Northwoods Shared Services Project: Policymaker Discussion Groups. Wausau, Wisconsin: Northwoods Shared Services Project, discussions conducted from September 2013 – April 2014. Unpublished. Information available upon request from Chris Dobbe at Chris.Dobbe@co.marathon.wi.us.

Description: Discussions with policymakers were held to gather qualitative information about policymaker perspectives on cross-jurisdictional sharing arrangements. These discussions were held at Board of Health, Health Committee and Health and Human Service Committee meetings in the project area from September 2013 – April 2014.

Northwoods Shared Services Project: Project-Specific Results from the Center for Sharing Public Health Services Assessment Tool for Public Health: Existing Services. (http://www.phsharing.org/assessment_tools/existing-services-tool/) Wausau, WI: Northwoods Shared Services Project, Marathon County Health Department, 2013. Unpublished. Information available upon request from Chris Dobbe at Chris.Dobbe@co.marathon.wi.us.

Description: An online survey provided by the Center for Sharing Public Health Services was conducted in May 2013 to obtain information about cross-jurisdictional sharing in learning communities across the nation funded by the Robert Wood Johnson Foundation Shared Services Learning Community program.

Northwoods Shared Services Project: Interviews with Health Officers. Wausau, WI: Northwoods Shared Services Project, interviews conducted from June – August 2013. Unpublished. Information available upon request from Chris Dobbe at Chris.Dobbe@co.marathon.wi.us.

Description: Interviews were conducted with health officers in the Northwoods Shared Services Project from June – August 2013 to gather qualitative information about factors associated with successful cross-jurisdictional sharing arrangements.

Northwoods Shared Services Project: Public Health Accreditation Board (PHAB) Standards and Measures Self-Assessment. Wausau, WI: Northwoods Shared Services Project, Marathon County Health Department, 2013. Unpublished. Information available upon request from Chris Dobbe at Chris.Dobbe@co.marathon.wi.us.

Description: Health departments in the Northwoods Shared Services Project completed a self-assessment of their organizational readiness to pursue voluntary accreditation through the Public Health Accreditation Board. The purpose of the self-assessment was to identify strengths and uncover gaps in agency performance.

Program Development and Evaluation. WI: Board of Regents of the University of Wisconsin System, University of Wisconsin-Extension, Division of Cooperative Extension, 2009. Available at <http://www.uwex.edu/ces/pdande/evaluation/>.

Description: This online primer has information, quick tips, and tools for program development and evaluation. There are logic model templates, information and tools for evaluation methods, data analysis, and reporting results. The site links to other publications including, *Planning a Program Evaluation*, a concise guide with step-by-step instructions.

Project Management Tools. CA: The Regents of the University of California, University of California – Berkeley, Technology Program Office, 2014. Available at <http://technology.berkeley.edu/cio/tpo/project/pmresources/tools/>

Description: This website was the source for the adapted Project Charter provided in Section B.

Shared Services - Working Together: A Guide to Joint Service Feasibility Studies & Shared Service Agreements. NJ: Department of Community Affairs, Division of Local Government Services, November 2010. Available at www.state.nj.us/dca/divisions/dlgs/programs/shared_docs/sharedsvcsrefguide.pdf.

Description: This guidance document describes how to do a feasibility study for a multi-jurisdictional arrangement, the steps in negotiating an inter-local agreement and the essential components of a shared services agreement.

Shepherd, M. *Cross Jurisdictional Sharing Readiness Factors*. KS: Center for Sharing Public Health Services, 2012. Available at www.phsharing.org/wp-content/uploads/2013/05/2012-PD17-CSPHS-Guiding-Questions1.pdf.

Description: This paper reports cross-jurisdictional readiness factors to consider including: motivation for change; trust between partners; identified and effective leadership; commitment to cross-jurisdictional efforts; effective collaboration; common policies, protocols, procedures and data management; and access to financial and other capital resources (money, space, equipment and goods).

Stoto MA. "Regionalization in Local Public Health Systems: Variation in Rationale, Implementation, and Impact on Public Health Preparedness." *Public Health Reports*. 123(4): 441-449, July – August 2008.

Description: The authors suggest that regionalization can impact a variety of public health services in addition to public health preparedness. Areas noted were improving delivery of essential public health services, sharing media markets, sharing epidemiological surveillance and developing networks that transcend issue-specific and geo-political boundaries.

Strengthening Public Health During Merger, Consolidation, and Regionalization. Kimberly, WI: National Association of Local Boards of Health, 2012.

Description: This NALBOH position paper provides principles for responsible and effective public health governance during regionalization of public health services. These principles may be helpful when planning for and evaluating shared services.

Summit County Health District and Akron Health Department Consolidation Feasibility Study. Cleveland, OH: The Center for Community Solutions, February 11, 2010. Available at http://www.odh.ohio.gov/localhealthdistricts/Futures/sitecore/shell/Controls/Rich%20Text%20Editor/~/_media/ODH/ASSETS/Files/lhd/SCHD%20Feasibility%20Study%20Final%20Report%202-12-10.ashx.

Description: This feasibility study describes critical issues for consolidation, including: governance, personnel, finance, public health services, facilities, legal issues, timetable and target dates and community and stakeholder participation. The study also describes recommendations for managing each critical issue.

Taylor-Powell E, Rossing B, Geran J. *Evaluating Collaboratives: Reaching the Potential.* WI: University of Wisconsin Board of Regents and University of Wisconsin Extension, Cooperative Extension, July 1998. Available at learningstore.uwex.edu/assets/pdfs/G3658-8.pdf.

Description: It is important to plan for and evaluate the collaboration process that is necessary for a successful shared service. This manual provides a primer on evaluation as well as information and tools specific to evaluating collaboratives.

Template for Strategic Communication Plan. Battle Creek, MI: W.K. Kellogg Foundation, January 26, 2006. Available at <http://www.wkkf.org/resource-directory/resource/2006/01/template-for-strategic-communications-plan>.

Description: This template describes the essential steps in a strategic communication plan and prompts the user to construct the plan by answering a series of questions for each step.

The State of Public Health in Wisconsin. Washington DC: Public Health Action Campaign, American Public Health Association, 2013. Available at http://www.apha.org/NR/rdonlyres/2EA63B1A-AF30-4BE7-A2DA-9C5667B2537D/0/Wisconsin2013PHACTCampaignSheet_2.pdf.

Description: This fact sheet reports on public health funding in Wisconsin in relationship to other states in the nation.

U.S. Department of Health and Human Services Strategic Plan, 2010-2015. Washington DC: U.S. Department of Health and Human Services, update September 2011. Available at http://www.hhs.gov/strategic-plan/stratplan_fy2010-15.pdf.

Description: The USDHHS strategic plan has been updated since this resource was first accessed. The Secretary has a strategic initiative around workforce development which includes strengthening the public

health workforce. More information can be found at <http://www.hhs.gov/strategic-plan/health-workforce.html>.

Vest JR, Shah GH. "The Extent of Interorganizational Resource Sharing Among Local Health Departments: The Association With Organizational Characteristics and Institutional Factors." *Journal of Public Health Management Practice*. 18(6): 551-560, 2012.

Description: This article documents a "big picture" perspective of resource sharing among health departments across the country (NACCHO 2010 Profile Survey), demonstrating that approximately half of all LHDs are engaged in resource sharing. Approximately 49.5% provided services to another health department, 57.4% shared to obtain resources and 56.2% shared staff or physical resources. Programmatic sharing is much more common (50.1%) than sharing of organizational functions (31.2%). LHDs likely or very likely to seek national accreditation were associated with higher levels of shared programs. More local revenue sources, larger population, and larger LHD = less shared programs. Less state funding = greater sharing of organizational functions. The authors point out that although functional sharing (information technology, management, human resources) is less common, it has a greater potential to transform the entire organization than sharing of programs.

Young, N. *Current & Planned Shared Service Arrangements Among Wisconsin's Local & Tribal Health Departments: Brief Project Summary*. WI: Institute for Wisconsin's Health, Inc., October 2012. Prepared for Public Health Practice-Based Research Networks National Coordinating Center, University of Kentucky. Available at

<http://www.instituteforwihealth.org/uploads/1/2/7/8/12783470/qsrsharedservicesbriefsummary-1.pdf>.

Description: This brief summary contains selected highlights from an online survey of 99 local and tribal health departments in Wisconsin on current and future use of shared service arrangements.

Wetta-Hall R, Berg-Copas GM, Ablah E, Herrmann MB, Kang S, Orr S, Molgaard C. "Regionalization: Collateral Benefits of Emergency Preparedness Activities." *Journal of Public Health Management Practice*. 13(5): 469-475, 2007. Abstract available at

http://journals.lww.com/jphmp/Abstract/2007/09000/Regionalization_Collateral_Benefits_of_Emergency_7.aspx.

Description: This article provides lessons learned from regionalized public health services for emergency preparedness in Kansas. Many of the lessons learned can be applied to other types of cross-jurisdictional sharing arrangements.

Wisconsin Local Health Department Survey 2011. Madison, WI: Health Analytics Section, Office of Health Informatics, Division of Public Health, Wisconsin Department of Health Services, June 2013. Available at <http://www.dhs.wisconsin.gov/publications/P4/P45704-11.pdf>.

Description: The results of this annual survey of local health departments details information on budgets, number of FTEs, and age and race of employees.

Wisconsin Statue 251. WI: Wisconsin Legislature, 2011 – 2012 with updates. Available at docs.legis.wisconsin.gov/statutes/statutes/251.pdf.

Description: This section of Wisconsin state statutes details local health department duties, levels of services, health officer qualifications, shared services, board of health powers and duties, financing and more. These statutes were updated to allow for more shared services across jurisdictions and merged health departments.

Zeemering E, Delabbio D. *A County Manager's Guide to Shared Services in Local Government*. Washington DC: IBM Center for The Business of Government, 2013. Available at www.businessofgovernment.org/sites/default/files/A%20County%20Managers%20Guide%20to%20Shared%20Services.pdf.

Description: This report describes important pre-conditions for shared service implementation and five important recommendations for planning and implementing a shared service in county government. It includes one public health example from Gilpin & Jefferson Counties in Colorado. Leadership, trust and reciprocity, and clear goals and measurable results are described as important pre-conditions for shared services.

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