



2011

## Value Proposition Workgroup Final Report



## **Executive Summary**

This document is the final report of WISHIN's Value Proposition Workgroup (VPWG). It is possible; however, that the VPWG may reconvene in the future as WISHIN refines its plans to implement its Phase II technical services in late 2012.

### **Background**

WISHIN's Strategic and Operational Plan (SOP), approved in December 2010 by the Office of the National Coordinator for Health Information Technology (ONC), identified nearly 40 use cases that could be enabled by a statewide health information network.

The list of use cases was developed by the WIRED for Health Board's Standards and Architecture Committee. The Committee assessed the use cases primarily from a technical perspective, and not necessarily from a value perspective.

The committee's scoring methodology calculated an overall priority ranking using three elements:

- Assumed Benefits
  - Quality
  - Cost/Time
- Meaningful Use (applies to providers)
- Complexity

The ten highest-ranked use cases were recommended as WISHIN's priorities for the delivery of technical services in Phase II. Please see [Appendix A](#) for a complete list of the use cases included in the SOP.

### **Creation and Goals of the Workgroup**

At its July 27, 2011, meeting, the WISHIN Board of Directors authorized the creation of a Value Proposition Workgroup to inform the development of WISHIN's Phase II RFP and WISHIN's implementation of Phase II technical services by:

- Reviewing the use cases and priority rankings included in Appendix 15 of WISHIN's Strategic and Operational Plan.
- Suggesting additional HIE use cases or services that could deliver value to WISHIN's clients.
- Identifying use cases/services that convey competitive advantage to WISHIN by assessing them against the VRINE (Value, Rare, Inimitable/Non-substitutable, Exploitable) model.
- Identifying additional market-research questions or issues that should be resolved as part of WISHIN's overall marketing and sustainability approach.

The Workgroup met three times (August 30, September 30, and October 28, 2011). A list of members of the workgroup who participated in one or more meetings may be found in [Appendix B](#).

The VPWG discussed a number of specific ideas within each use case and evaluated them against the following questions, known as a VRINE analysis:

Valuable: Does the idea allow WISHIN to meet the demands of the market or protect WISHIN from market uncertainties? In other words, would clients be willing to pay enough for the service that WISHIN could deliver it profitably?

Rare: Is the idea scarce relative to demand?

Inimitable/Nonsubstitutable: Would it be difficult for competitors to imitate the capabilities of the idea or substitute other capabilities that would provide similar benefits?

Exploitable: Does WISHIN have, or can WISHIN acquire, the staff, knowledge, money and technologies to make the idea happen?

A VRINE analysis is a way to assess WISHIN's market positioning with respect to a proposed service.

In Workgroup discussions, participants stressed that the value of any service offered by or through WISHIN:

- Depends on widespread provider participation in WISHIN's network.
- Lies in enabling patient-centric (as opposed to provider-centric or payer-centric) queries and transactions.
- Is enhanced when the various services being offered are integrated within a single tool or view (as opposed to being accessed as stand-alone applications or functions).

The VPWG concluded that two categories of service present the highest value to potential WISHIN clients and present the greatest opportunity for WISHIN to satisfy market demands:

- Provide query-driven exchange services for health information [Continuity of Care Documents (CCDs), test orders, referrals, test results, etc.) across disparate systems to enhance or enable coordination of care. Examples are a virtual health record and/or EMR Lite, or a community health record.
- Accommodate image-sharing as part of a query-based HIE.

These two categories of service are the best candidates for initial services to be offered through WISHIN's query-based exchange, scheduled to be implemented in late 2012. Other services may and likely will be offered at that time as well.

A summary of the VRINE analyses on each service may be found below:

| VRINE ANALYSIS SUMMARY                | 1                 | 2                                    | 3   | 4  | 5  | 6             | 7   | 8                            |
|---------------------------------------|-------------------|--------------------------------------|---|--|--|---------------|---|------------------------------|
|                                       | Care Coordination | Deliver Quality Data                 | Information Exchange Between Payers and Providers | Patient Interactions with Their Health Records     | Gateway to NwHIN                             | Image Sharing | Public Health Reporting   | Connect Other Partners       |
| <b>Valuable</b>                       | Yes               | In some cases                        | Yes   | Possibly   | Yes  | Yes           | Yes   | Possibly                     |
| <b>Rare</b>                           | Yes               | Scarcity may be linked to low demand | Yes   | Possibly   | Yes  | Yes           | Single interface is rare, but many are reporting electronically | Possibly; depends on service |
| <b>Inimitable / Non-substitutable</b> | Yes               | Unknown                              | Likely, if network participation is strong        | Yes, if service integrated with other HIE services | Yes  | Yes           | Yes   | Yes                          |
| <b>Exploitable</b>                    | Likely            | Unknown                              | Likely  | Likely   | Complexity may require specialized resources | Likely        | Yes   | Possibly                     |

A detailed discussion of each of the ideas analyzed by the Workgroup, and the group's suggested next-level questions for consideration in the context of Phase II marketing and implementation activities, follows in the body of this report.

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## **FINAL REPORT OF THE WISHIN VALUE PROPOSITION WORKGROUP**

### **Background**

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The list of use cases was developed by the WIRED for Health Board's Standards and Architecture Committee. The Committee assessed the use cases primarily from a technical perspective, and not necessarily from a value perspective.

The committee's scoring methodology calculated an overall priority ranking using three elements:

- Assumed Benefits
  - Quality
  - Cost/Time
- Meaningful Use (applies to providers)
- Complexity

Priority scoring combined the scores for benefits, meaningful use, and complexity. The highest possible score in each category was 1.000; therefore the maximum priority score for a use case was 3.000.

The ten highest-ranked use cases (those with priority scores above 1.000) were recommended as WISHIN's priorities for the delivery of technical services in Phase II. The discussion of services and use cases that follows will refer to the original list of use cases and scores. Please see [Appendix A](#) for a complete list of the use cases included in the SOP.

### **Creation and Goals of the Workgroup**

At its July 27, 2011, meeting, the WISHIN Board of Directors authorized the creation of a Value Proposition Workgroup to inform the development of WISHIN's Phase II RFP and WISHIN's implementation of Phase II technical services by:

- Reviewing the use cases and priority rankings included in Appendix 15 of WISHIN's Strategic and Operational Plan.
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- Identifying use cases/services that convey competitive advantage to WISHIN by assessing them against the VRINE (Value, Rare, Inimitable/Non-substitutable, Exploitable) model.
- Identifying additional market-research questions or issues that should be resolved as part of WISHIN's overall marketing and sustainability approach.

## Workgroup Meetings

The Workgroup met three times (August 30, September 30, and October 28, 2011):

- At its initial meeting (August 30, 2011) the workgroup:
  - Received an orientation to the use cases included in the SOP.
  - Received background information on WISHIN's high-level vision for statewide HIE and the timeline and process for implementation of Phase II technical services.
  - Learned about the experiences of the Nebraska Health Information Initiative (NeHII), and the value being provided in Nebraska by HIE services.
  - Identified additional services that could deliver value to WISHIN clients.
- At its second meeting (September 30, 2011), the workgroup began its VRINE analysis of the services suggested at the first meeting.
- At its third meeting (October 28, 2011), the workgroup concluded its VRINE analysis of the services suggested at the first meeting and discussed next-level questions for consideration in the context of Phase II marketing and implementation activities.

A list of members of the workgroup who participated in one or more meetings may be found in [Appendix B](#).

## Services Identified by Workgroup

The workgroup identified and analyzed eight types of services WISHIN might provide to paying customers, listed below:

1. Enable Care Coordination
2. Aggregate and Disseminate Quality Data
3. Facilitate Communications or Transactions Between Payers and Providers
4. Facilitate Patients' Interactions with Their Health Records
5. Serve as a Gateway to the Nationwide Health Information Network (NwHIN)
6. Accommodate Image Sharing
7. Enable Reporting to Public Health
8. Connect Other Health Care Partners to the WISHIN Network

## The VRINE Analysis

The VPWG discussed a number of specific ideas within each use case and evaluated them against the following questions, known as a VRINE analysis:

Valuable: Does the idea allow WISHIN to meet the demands of the market or protect WISHIN from market uncertainties? In other words, would clients be willing to pay enough for the service that WISHIN could deliver it profitably?

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A VRINE analysis is a way to assess WISHIN's market positioning with respect to a proposed service.

In Workgroup discussions, participants stressed that the value of any service offered by or through WISHIN:

- Depends on widespread provider participation in WISHIN's network.
- Lies in enabling patient-centric (as opposed to provider-centric or payer-centric) queries and transactions.
- Is enhanced when the various services being offered are integrated within a single tool or view (as opposed to being accessed as stand-alone applications or functions).

A summary of the Workgroup's analysis on each service follows below.

## 1 - Enable Care Coordination

### Description

This is the basic service of a health information exchange – enabling care coordination by making certain health information available for query (such as test results, medication history, medication allergies, care summaries, discharge summaries) and streamlining transitions of care from one setting to another (hospital to primary care or admitting physician, test orders, etc.). WISHIN envisions providing a “virtual health record” or “community health record: and/or EMR-Lite solution.

### Original SOP Use Cases for This Service

| Case # | Focus    | Description  | Benefits Score | Meaningful Use Score | Complexity Score | Total Score  |
|--------|----------|--|----------------|----------------------|------------------|--------------|
| 25     | Provider | Clinicians can send summaries to other providers and to patients                     | 1.000          | 1.000                | 0.295            | <b>1.445</b> |
| 4      | Provider | Hospital sends discharge information to referring provider                           | 0.390          | 0.968                | 0.799            | <b>1.314</b> |
| 1      | Provider | Provider refers patient to specialist (including care coordination document)         | 0.477          | 0.968                | 0.713            | <b>1.293</b> |
| 3      | Provider | Specialist sends continuity of care document back to referring provider              | 0.385          | 0.968                | 0.713            | <b>1.262</b> |
| 2      | Provider | Provider refers patient to hospital (including continuity of care record)            | 0.382          | 0.968                | 0.627            | <b>1.215</b> |
| 37     | Provider | Release of information (provider to provider)  | 0.414          | 0.032                | 0.541            | <b>0.682</b> |
| 30     | Provider | Emergency Department link  | 0.184          | 0.097                | 0.541            | <b>0.580</b> |
| 19     | Provider | A patient-designated caregiver monitors and coordinates care across multiple domains | 0.432          | 0.258                | 0.000            | <b>0.503</b> |

### Technical Requirements to Support This Service

1. A virtual health record application that would be usable by health care professionals and community partners. This would require view-only functionalist as well as the ability to update data. The “update” functionality could be separated into an EMR-Lite solution.
2. Possible integration of virtual health record with WISHIN Direct.

**VRINE Analysis for This Service**

| Criteria  | Meets Criterion? (Y/N) | Comments  |
|---|------------------------|---|
| <p><b><u>VALUABLE</u></b><br/>Does this service allow WISHIN to meet the demands of the market or protect WISHIN from market uncertainties?</p>   | Y                      | <p>... if WISHIN enables patient-centered query (single interface engaging multiple end-points). There are applications to post-acute care (e.g., managing readmissions, home health, rehab, SNF) and bundled pricing.</p> <p>This is the main value of HIE. Providers near the state border would need access to information from the other state.</p> |
| <p><b><u>RARE</u></b><br/>Is this service scarce relative to demand?</p>  | Y                      | <p>... patient-centered query with integrated view of activity is rare. There are some pockets of HIE activity (incl. Epic Care Everywhere) in Wisconsin.</p>   |
| <p><b><u>INIMITABLE &amp; NON-SUBSTITUTABLE</u></b><br/>Would it be difficult for competitors to imitate the capabilities of this service or substitute other capabilities that would provide similar benefits?</p> | Y                      | <p>... if first to market. "Alaska Oil Pipeline" analogy.</p>   |
| <p><b><u>EXPLOITABLE</u></b><br/>Does WISHIN have the staff, knowledge, money, and technologies to make this service happen?</p>  | TBD                    | <p>WISHIN will acquire and deploy resources to implement high-value services.</p>   |

## 2 - Aggregate and Disseminate Quality Data

### Description

WISHIN could provide an aggregation and dissemination service for the reporting of quality data to various endpoints on the network, including CMS or CMS contractors, the Wisconsin Department of Health Services (DHS), the Wisconsin Health Information Organization, Wisconsin Collaborative for Healthcare Quality, or others.

WISHIN could allow providers to submit raw data, perhaps continuously, for aggregation or manipulation/calculation for delivery to the intended recipient.

This service could be of value in relation to the 65 quality metrics required for Accountable Care Organizations (ACOs), many of which are centered on chronic conditions. Outside the ACO context, such a service could support management of chronic conditions within health care organizations or by other entities responsible for care management (e.g., managed-care organizations or other payers).

### Original SOP Use Cases for This Service

| Case # | Focus | Description   | Benefits Score | Meaningful Use Score | Complexity Score | Total Score |
|--------|-------|---|----------------|----------------------|------------------|-------------|
| 13     | Other | Provider or hospital reports quality measures to CMS or State | 0.197          | 0.935                | 0.610            | 1.134       |

### Technical Requirements to Support This Service

1. A data aggregation service to collect the necessary raw data.
2. A service that would format the raw data into the various formats needed by the requesting entities.
3. A dissemination service that would send formatted data to the requester.

### New Use Cases for This Service

1. Provider submits or WISHIN extracts specified raw data.
2. WISHIN sends formatted data to the designated endpoint.



VRINE Analysis

| Criteria   | Meets Criterion? (Y/N)                   | Comments   |
|--|--|--|
| <p><b><u>VALUABLE</u></b><br/>           Does this service allow WISHIN to meet the demands of the market or protect WISHIN from market uncertainties?</p>   | <p>Mixed Reviews</p>                     | <p>Some workgroup members say this is not a problem that needs to be solved from a cost-avoidance standpoint. This service does not directly advance quality of care. Could provide indirect value in facilitating P4P reporting. WI Medicaid sees value in enabling reporting of quality data within Medicaid managed-care program.</p> |
| <p><b><u>RARE</u></b><br/>           Is this service scarce relative to demand?</p>  | <p>Scarcity may be due to low demand</p> |  |
| <p><b><u>INIMITABLE &amp; NON-SUBSTITUTABLE</u></b><br/>           Would it be difficult for competitors to imitate the capabilities of this service or substitute other capabilities that would provide similar benefits?</p> | <p>Unknown</p>                           |  |
| <p><b><u>EXPLOITABLE</u></b><br/>           Does WISHIN have the staff, knowledge, money, and technologies to make this service happen?</p>  | <p>Unknown</p>                           | <p>WISHIN has two quality-reporting organizations as partners and works closely with DHS/Medicaid. Considerable resources may be required due to complexity.</p>   |

### 3 - Facilitate Communications/Transactions Between Payers and Providers

#### Description

WISHIN could enable efficient and paper-free transactions or communications (such as insurance eligibility, preauthorizations and notifications of admission) between providers and payers.

#### Technical Requirements to Support This Service

1. A collection and loading service to capture necessary eligibility files from providers and regularly refresh the information.
2. Storage of eligibility information.
3. Enabling population and delivery of payer-specific e-forms or ANSI-standard electronic forms.

#### New Use Cases for This Service

1. WISHIN pulls raw eligibility data from payer.
2. Provider queries WISHIN data for eligibility information.
3. WISHIN includes insurance eligibility information in response to general queries about a patient.
4. WISHIN enables preauthorization requests and notifications of admission or acknowledgements thereof.

#### VRINE Analysis for This Service

| Criteria  | Meets Criterion? (Y/N) | Comments  |
|---|------------------------|---|
| <b><u>VALUABLE</u></b><br>Does this service allow WISHIN to meet the demands of the market or protect WISHIN from market uncertainties?   | Y                      | Workgroup members agreed that small physician practices, SNFs, home health, etc., would benefit from a patient-centered single interface with payers.   |
| <b><u>RARE</u></b><br>Is this service scarce relative to demand?  | Y                      | Availity and others are in this market space to some extent, but there is an unserved segment of the market.  |
| <b><u>INIMITABLE &amp; NON-SUBSTITUTABLE</u></b><br>Would it be difficult for competitors to imitate the capabilities of this service or substitute other capabilities that would provide similar benefits? | Unknown                | Medicaid has a portal for eligibility inquiry. There may be an advantage in establishing a single point of access for information from multiple payers.<br><br>Value is in the number of participants/end points. |
| <b><u>EXPLOITABLE</u></b>   | TBD                    | WISHIN will acquire and deploy resources to   |



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| Criteria  | Meets Criterion?<br>(Y/N) | Comments                       |
|---|---------------------------|--------------------------------|
| Does WISHIN have the staff, knowledge, money, and technologies to make this service happen? |                           | implement high-value services. |

## 4 - Facilitate Patients' Interactions with Their Health Records

### Description

WISHIN could provide ways for patients to interact with their health records using social media or other common tools, such as cell phones or e-mail).

### Original SOP Use Cases for This Service

| Case # | Focus   | Description   | Benefits Score | Meaningful Use Score | Complexity Score | Total Score |
|--------|---------|---|----------------|----------------------|------------------|-------------|
| 11     | Patient | Provider sends reminder for preventive or follow-up care to the patient/caregiver (via PHR) | 0.261          | 0.935                | 0.426            | 1.061       |
| 9      | Patient | Provider sends a clinical summary of an office visit to the patient/caregiver (via PHR)     | 0.258          | 0.097                | 0.426            | 0.507       |

### Technical Requirements to Support This Service

1. An application, or integration with an existing application, that would interact with WISHIN.
2. A data collection service that would collect key data from employer wellness programs and/or social-media applications.
3. A service that would allow data collected from the patient (through employer wellness programs and/or social-media applications) to be included in responses to provider queries.
4. A data-dissemination service that would allow reminders and follow-up care instructions to be sent to social-media applications, cell-phone applications, and e-mail.
5. Possible integration with WISHIN Direct.

### New Use Cases for This Service

1. Patient submits or authorizes the submission of information from an employer wellness program, to WISHIN and the availability of that information via query by providers.
2. Patient submits information via a social-media application to WISHIN and authorizes the availability of that information via query by providers.
3. Provider sends reminder for preventive or follow-up care to patient/caregiver via social-media application or Personal Health Record (PHR).
4. Provider sends a clinical summary of an office visit to the patient/caregiver via social-media application or PHR.

**VRINE Analysis**

| Criteria  | Meets Criterion?<br>(Y/N) | Comments  |
|---|---------------------------|---|
| <p><b><u>VALUABLE</u></b><br/>Does this service allow WISHIN to meet the demands of the market or protect WISHIN from market uncertainties?</p>   | Possibly                  | Workgroup members report that employers in some cases are asking providers for help with implementing employee wellness programs (for example, populating Health Risk Assessments from electronic health record). However, there are questions about the extent to which this could generate substantial revenue. |
| <p><b><u>RARE</u></b><br/>Is this service scarce relative to demand?</p>  | Possibly                  | Is scarcity a reflection of low demand?   |
| <p><b><u>INIMITABLE &amp; NON-SUBSTITUTABLE</u></b><br/>Would it be difficult for competitors to imitate the capabilities of this service or substitute other capabilities that would provide similar benefits?</p> | Y                         | ... as a service integrated with other HIE services. Might not be difficult as a stand-alone service.   |
| <p><b><u>EXPLOITABLE</u></b><br/>Does WISHIN have the staff, knowledge, money, and technologies to make this service happen?</p>  | TBD                       | WISHIN will acquire and deploy resources to implement high-value services.<br><br>Include PHR integration with Phase II RFP.  |



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## 5 - Serve as a Gateway to the Nationwide Health Information Network (NwHIN)

### Description

Certain federal agencies, including the Social Security Administration (SSA) and the Department of Veterans Affairs, use the NwHIN to exchange information. Connecting to the NwHIN is a complex process, but if WISHIN can accomplish this connection on behalf of its network participants, WISHIN may enable those participants to exchange information using the NwHIN without each of them having to build their own NwHIN interface.

### Technical Requirements to Support This Service

1. Connectivity to the NwHIN, along with the associated services for exchanging information with entities on NwHIN.

### New Use Case(s) for This Service

1. Provider responds to requests for medical records from the SSA for disability determinations.
2. Provider queries patient history maintained by the Veterans Administration (Virtual Lifetime Electronic Record, or VLER).
3. Provider queries patient history for patients who have been treated other states using the NwHIN as a bridge between state HIEs.

**VRINE Analysis for This Service**

| Criteria  | Meets Criterion?            | Workgroup Comments  |
|---|-----------------------------|---|
| <p><b><u>VALUABLE</u></b><br/>Does this service allow WISHIN to meet the demands of the market or protect WISHIN from market uncertainties?</p>   | Yes                         | <p>Experience with a grant-funded effort with SSA shows that connecting to NwHIN is a very complicated, time-intensive, bureaucratic process. If WISHIN would act as a gateway to NwHIN (for providers on the WISHIN network), this would be a very valuable service.<br/>Interstate HIE connections will require such a gateway.</p> |
| <p><b><u>RARE</u></b><br/>Is this service scarce relative to demand?</p>  | Yes                         |   |
| <p><b><u>INIMITABLE &amp; NON-SUBSTITUTABLE</u></b><br/>Would it be difficult for competitors to imitate the capabilities of this service or substitute other capabilities that would provide similar benefits?</p> | Yes                         | <p>After connecting to WISHIN, if the price is reasonable and the service is good, why would anyone change?</p>   |
| <p><b><u>EXPLOITABLE</u></b><br/>Does WISHIN have the staff, knowledge, money, and technologies to make this service happen?</p>  | Can acquire these resources | <p>The value is in removing or reducing the bureaucratic burden of direct connections between providers and the NwHIN.</p>  |

## 6 - Enable image sharing

### Description

WISHIN could enable image sharing among providers as a part of the HIE. This prevents providers from having to find alternative ways to share or access images.

### Technical Requirements to Support This Service

1. System resources and capacity to support the larger file sizes associated with images.

### New Use Cases for This Service

1. Physician accesses image and interpretation/report from an ED encounter in post-ED follow-up.
2. Specialist accesses image(s) and interpretations/reports performed or recorded elsewhere to assess progress or change over time.

### VRINE Analysis for this Service

| Criteria   | Meets Criterion? (Y/N) | Comments   |
|--|------------------------|--|
| <p><b><u>VALUABLE</u></b><br/>Does this service allow WISHIN to meet the demands of the market or protect WISHIN from market uncertainties?</p>  | Yes                    | <p>Enhances care coordination (#1), especially if images and reports can be tied to other patient information.</p> <p>Has potential to improve workflow. There is a predictable rate of utilization of these images. Images can be acquired in advance by nursing or intake staff in preparation for patient encounter.</p> <p>EKGs are a high-request item in ED encounters. It would be useful to have access to historical EKGs. These are substantially smaller files than most images and could be stored and retrieved without risk of performance problems.</p> |
| <p><b><u>RARE</u></b><br/>Is this service scarce relative to demand?</p>   | Yes                    | <p>An opportunity to change the culture. Currently there is a desire to acquire your own images when you don't have a complete record of the patient.</p>  |
| <p><b><u>INIMITABLE &amp; NON-SUBSTITUTABLE</u></b><br/>Would it be difficult for competitors to imitate the capabilities of this service or</p> | Yes                    | <p>After connecting to WISHIN, if the price is reasonable and the service is good, why would anyone change?</p>  |

| Criteria  | Meets Criterion? (Y/N)             | Comments  |
|---|------------------------------------|---|
| substitute other capabilities that would provide similar benefits?  |                                    | <p>PAC images are in generic formats; the value is in tying it to other shared patient information.</p> <p>Some EHRs and "cloud" PACs are doing this within IDNs. Value is in extending that access.</p>  |
| <p><b>EXPLOITABLE</b><br/>Does WISHIN have the staff, knowledge, money, and technologies to make this service happen?</p> | <p>Can acquire these resources</p> | <p>DICOM is a reasonably mature set of technical standards, but routing protocols may be complex.</p> <p>Some storage will be needed. Bandwidth is a consideration.</p> <p>In general, WISHIN should not seek to be in the image-storage business.</p> <p>WISHIN may want to make only jpeg files and interpretations/reports available on first pass, with links to actual images.</p> |

## 7 - Enable Reporting to Public Health

### Description

WISHIN could provide a single interface to help alleviate administrative burdens for providers associated with reporting to Public Health and receiving information from Public Health. Federal Meaningful Use regulations require providers to be able to submit mandatory public health reports electronically.

### Existing Use Cases Related to this Service

| Case # | Focus         | Description  | Benefits Score | Meaningful Use Score | Complexity Score | Total Score  |
|--------|---------------|--|----------------|----------------------|------------------|--------------|
| 33     | Public Health | Laboratory or reference lab sends aggregate data to Public Health (batch)                        | 0.136          | 0.968                | 0.770            | <b>1.244</b> |
| 15     | Lab           | Laboratory (or reference laboratory) sends test results to Public Health                         | 0.370          | 1.000                | 0.493            | <b>1.175</b> |
| 32a    | Public Health | Provider sends reportable disease diagnosis data to public health                                | 0.160          | 0.032                | 0.885            | <b>0.900</b> |
| 32b    | Public Health | Provider sends non-reportable, anonymized disease data to public health                          | 0.150          | 0.032                | 0.885            | <b>0.898</b> |
| 39     | Public Health | Public Health sends feedback report to provider  | 0.080          | 0.000                | 0.885            | <b>0.889</b> |
| 16     | Public Health | Providers send chief complaint (non-reportable) data to public health for syndromic surveillance | 0.000          | 0.032                | 0.885            | <b>0.886</b> |

### Technical Requirements to Support This Service

1. Interface between WISHIN and State Lab of Hygiene (reportable lab results).
2. Interface between WISHIN and the Division of Public Health (immunizations, syndromic surveillance, reportable diseases).

### New Use Cases for This Service

1. Sending immunizations.
2. Receiving immunization schedules.



VRINE Analysis for This Service

| Criteria   | Meets Criterion? (Y/N) | Comments   |
|--|------------------------|--|
| <p><b><u>VALUABLE</u></b><br/>           Does this service allow WISHIN to meet the demands of the market or protect WISHIN from market uncertainties?</p>   | Yes                    | Having all Public Health reporting burdens addressed in one place is valuable. WISHIN is better positioned to make this happen than is the state.  |
| <p><b><u>RARE</u></b><br/>           Is this service scarce relative to demand?</p>  | Yes                    | Electronic submission of public health data is happening to varying degrees for each type of mandatory reporting. Value is in single interface for any and all public health reporting purposes. |
| <p><b><u>INIMITABLE &amp; NON-SUBSTITUTABLE</u></b><br/>           Would it be difficult for competitors to imitate the capabilities of this service or substitute other capabilities that would provide similar benefits?</p> | Yes                    | After connecting to WISHIN, if the price is reasonable and the service is good, why would anyone change?<br><br>Value is in single interface.  |
| <p><b><u>EXPLOITABLE</u></b><br/>           Does WISHIN have the staff, knowledge, money, and technologies to make this service happen?</p>  | Yes                    | The hub-and-spoke model would work nicely for this service.  |

## 8 - Connect Other Health Care Partners to the WISHIN Network

### Description

Any number of ancillary health care providers or partners might be usefully connected to the WISHIN network. They might include emergency medical technicians/ambulance services, long-term care, home health, athletic clubs or others.

### Technical Requirements to Support This Service

1. TBD: Services would depend on the specific partner involved and whether or not there is a need for data collection, aggregation or other value-added manipulation that could be accomplished by WISHIN.

### Use Cases for This Service

1. TBD.

### VRINE Analysis

| Criteria  | Meets Criterion? (Y/N)                             | Comments   |
|---|--|--|
| <p><b><u>VALUABLE</u></b><br/>Does this service allow WISHIN to meet the demands of the market or protect WISHIN from market uncertainties?</p>   | Possibly   | <p>There are likely some situations in which connecting these kinds of entities to WISHIN may satisfy a demand. But the question is whether there is enough margin in doing so to allow WISHIN to provide this service.</p> <p>Would hospitals be interested in funding connections to EMTs/ambulance services, home health, long-term care?</p> |
| <p><b><u>RARE</u></b><br/>Is this service scarce relative to demand?</p>  | Rare – yes.<br>Rare relative to demand – possibly. | <p>It is rare for EMTs in the field to have access to current meds and allergies.</p> <p>It is rare for hospitals to receive electronic copies of EMS run reports.</p>   |
| <p><b><u>INIMITABLE &amp; NON-SUBSTITUTABLE</u></b><br/>Would it be difficult for competitors to imitate the capabilities of this service or substitute other capabilities that would provide similar benefits?</p> | Yes  | <p>WISHIN could be an exclusive provider re EMT services.</p>  |
| <p><b><u>EXPLOITABLE</u></b><br/>Does WISHIN have the staff, knowledge, money, and</p>  | TBD  | <p>In the near term, it seems unlikely that WISHIN is prepared to compete effectively in the consumer space. May require more</p>  |



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| Criteria                                  | Meets Criterion?<br>(Y/N) | Comments  |
|---|---------------------------|---|
| technologies to make this service happen? |                           | resources than purchasers are willing to pay for. |

## Results/Conclusions

Based on the VPWG's VRINE analysis, two categories of service present the highest value to potential WISHIN clients and present the greatest opportunity for WISHIN to satisfy market demands:

- Provide query-driven exchange services for health information [Continuity of Care Documents (CCDs), test orders, referrals, test results, etc.] across disparate systems to enhance or enable coordination of care. Examples are a virtual health record and/or EMR Lite, or a community health record. (Service #1).
- Accommodate image-sharing as part of a query-based HIE. (Service #6).

These two categories of service are the best candidates for initial services to be offered through WISHIN's query-based exchange, scheduled to be implemented in late 2012. Other services may and likely will be offered at that time as well.

## Next-level Questions Regarding HIE Value Proposition

Recognizing that the Workgroup met for only a short time and was comprised of a relatively small number of individuals and organizations, the Workgroup identified a list of next-level questions for broader consideration in the context of Phase II marketing and implementation activities.

1. What are the greatest opportunities for workflow efficiencies, cost avoidance or quality improvement in the following HIE categories:
  - a. Care coordination/transitions of care
  - b. Quality reporting/data submission
  - c. Payer-provider transactions/information exchange
  - d. Provider-patient communications
  - e. Connection through the Nationwide HIN to SSA, VA, other states.
  - f. Image sharing
  - g. Reporting to Public Health
  - h. Enabling wellness programs
  - i. Other
2. What are the barriers to HIE adoption for the above categories?
3. To what extent is compliance with Meaningful Use requirements a significant driver for HIE adoption?
4. To what extent will provider interest in forming Accountable Care Organizations (ACOs) be a significant driver for HIE adoption?



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5. Which geographic areas have medical trading patterns and/or a heterogeneous health care system/ EHR environment that would make them good candidates for HIE pilot projects that could be stood up in late 2012?
  6. Which payers, providers, or others would be good candidates to serve as champions or sponsors for the early-adoption pilot projects?
  7. Which services/use cases are the best candidates for an immediate impact or early win in a pilot project? How can experiences in other states and in other cases of HIE implementations in Wisconsin inform WISHIN's implementation activities?
  8. What are the value metrics or ROI calculations that are going to be the most salient in a client's decision to adopt HIE technology? Where does patient demand figure in the equation?
  9. Who are the decision makers and what is the decision making process for adoption within health care organizations?
  10. Is there a "nice to do" type service that we haven't discussed that should be considered?

## Appendix A: Complete List of SOP Use Cases

### Core Use Cases

| Case Number | Focus   | Description  |
|-------------|---------|--|
| 38a         | Patient | Patient Opts Out of having records shared in HIE (via PHR or HIE Patient Web Portal) |
| 38b         | Patient | Patient decides to Opt back In to having information exchanged in the HIE (via PHR)  |

### Additional Use Cases

| Case Number | Focus         | Description  | Total Score |
|-------------|---------------|--|-------------|
| 25          | Provider      | Clinicians can send summaries to other providers and to patients                                 | 1.445       |
| 12          | Public Health | Provider send patient immunization data to public health   | 1.394       |
| 4           | Provider      | Hospital sends discharge information to referring provider                                       | 1.314       |
| 1           | Provider      | Provider refers patient to specialist (including care coordination document)                     | 1.293       |
| 3           | Provider      | Specialist sends continuity of care document back to referring provider                          | 1.262       |
| 33          | Public Health | Laboratory or reference lab send aggregate data to Public Health (batch)                         | 1.244       |
| 2           | Provider      | Provider refers patient to hospital (including continuity of care record)                        | 1.215       |
| 15          | Lab           | Laboratory (or reference laboratory) sends test results to Public Health                         | 1.175       |
| 13          | Other         | Provider or hospital reports quality measures to CMS or State                                    | 1.134       |
| 11          | Patient       | Provider sends reminder for preventive or follow-up care to the patient/caregiver (via PHR)      | 1.061       |
| 32a         | Public Health | Provider sends reportable disease diagnosis data to public health                                | 0.900       |
| 32b         | Public Health | Provider sends non-reportable, anonymized disease data to public health                          | 0.898       |
| 39          | Public Health | Public Health sends feedback report to provider  | 0.889       |
| 16          | Public Health | Providers send chief complaint (non-reportable) data to public health for syndromic surveillance | 0.886       |
| 5b          | Lab           | Provider receives lab results from laboratory or reference laboratory                            | 0.784       |
| 37          | Provider      | Release of information (provider to provider)  | 0.682       |
| 36b         | Lab           | Laboratory receives lab results from another lab   | 0.629       |
| 30          | Provider      | Emergency Department link  | 0.580       |



| Case Number | Focus         | Description  | Total Score  |
|-------------|---------------|--|--------------|
| 5a          | Lab           | Provider orders patient lab tests from laboratory or reference laboratory                  | <b>0.572</b> |
| 18          | Provider      | Pharmacist sends medication therapy management consult to provider                         | <b>0.527</b> |
| 36a         | Lab           | Laboratory orders lab test from another lab  | <b>0.508</b> |
| 9           | Patient       | Provider sends a clinical summary of an office visit to the patient/caregiver (via PHR)    | <b>0.507</b> |
| 19          | Provider      | A patient-designated caregiver monitors and coordinates care across multiple domains       | <b>0.503</b> |
| 17          | Public Health | State public health agency reports public health data to Centers for Disease Control (CDC) | <b>0.345</b> |
| 35          | Provider      | Provider prescribes medication for patient   | <b>0.182</b> |
| 31          | Other         | Provide advance directives to requesting providers (via PHR)                               | <b>0.098</b> |



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## Appendix B: List of Value Proposition Workgroup Members

### WORKGROUP PARTICIPANTS

| <u>Name</u>          | <u>Affiliation</u>               |
|----------------------|----------------------------------|
| Elise Braun          | Deloitte (WI Medicaid)           |
| Kathy Callan         | Gunderson Lutheran               |
| Rachel Currans-Henry | WI Department of Health Services |
| Charles DeShazer, MD | Dean Health Systems              |
| Christopher Elfner   | Bellin Memorial Hospital         |
| Jeffrey Francis      | Ministry Health Care             |
| Elaine Krause        | Dean Health Systems              |
| Steve Little         | Agnesian Healthcare              |
| Jim Nelson           | Fort Healthcare                  |
| Steve Pelton         | Ministry Health Care             |
| Kim Pemble           | WI Health Information Exchange   |
| Patricia Ruff        | Froedtert and Community Health   |