

Health IT Policy Committee

A Public Advisory Body on Health Information Technology to the National Coordinator for Health IT



Advanced Health Models and Meaningful Use Workgroup

Paul Tang, chair
Joe Kimura, co-chair

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Advanced Health Models And MU Workgroup Members



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- **Paul Tang**, Chair, Palo Alto Medical Foundation
 - **Joe Kimura**, Co-Chair, Atrius Health
 - **Shaun Alfreds**, Member, HealthInfoNet
 - **Cheryl Damberg**, Member, Rand Corp.
 - **Arthur Davidson**, Member, Denver Public Health Department
 - **Marty Fattig**, Member, Nemaha County Hospital (NCHNET)
 - **Frederick Isasi**, Member, National Governors Association
 - **Norma Lang**, Member, University of Wisconsin
 - **Devin Mann**, Member, Boston University
 - **Lisa Marsch**, Member, Dartmouth College
 - **Ginny Meadows**, Member, McKesson Corporation
 - **Sumit Nagpal**, Member, Alere Accountable Care Solutions
 - **Terrence O'Malley**, Member, Partners
 - **Neal Patterson**, Member, Cerner
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 - **Charlene Underwood**, Member, Siemens
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- ### Ex Officio Members
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 - **Robert Flemming**, Ex Officio, Centers for Medicare & Medicaid, CMMI
 - **Patrice Holtz**, Ex Officio, Centers for Medicare and Medicaid Services
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 - **Suma Nair**, Ex Officio, HRSA
 - **Lisa Patton**, Ex Officio, Substance Abuse and Mental Health Services
 - **Terri Postma**, Ex Officio, Centers for Medicare & Medicaid, CMMI
 - **Shawn Terrell**, Ex Officio, Administration for Community Living



- Charge to work group
- Prioritization process
- Vision statements and use cases
- Assessment matrix
- Lessons learned

Roadmap Use Case Prioritization Charge



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- Develop a repeatable process to identify priority use cases with high impact on triple aim
- Illustrate the method by applying the process to the set of use cases compiled in Appendix H of the Roadmap
- Recommend participants who should be involved in the prioritization process

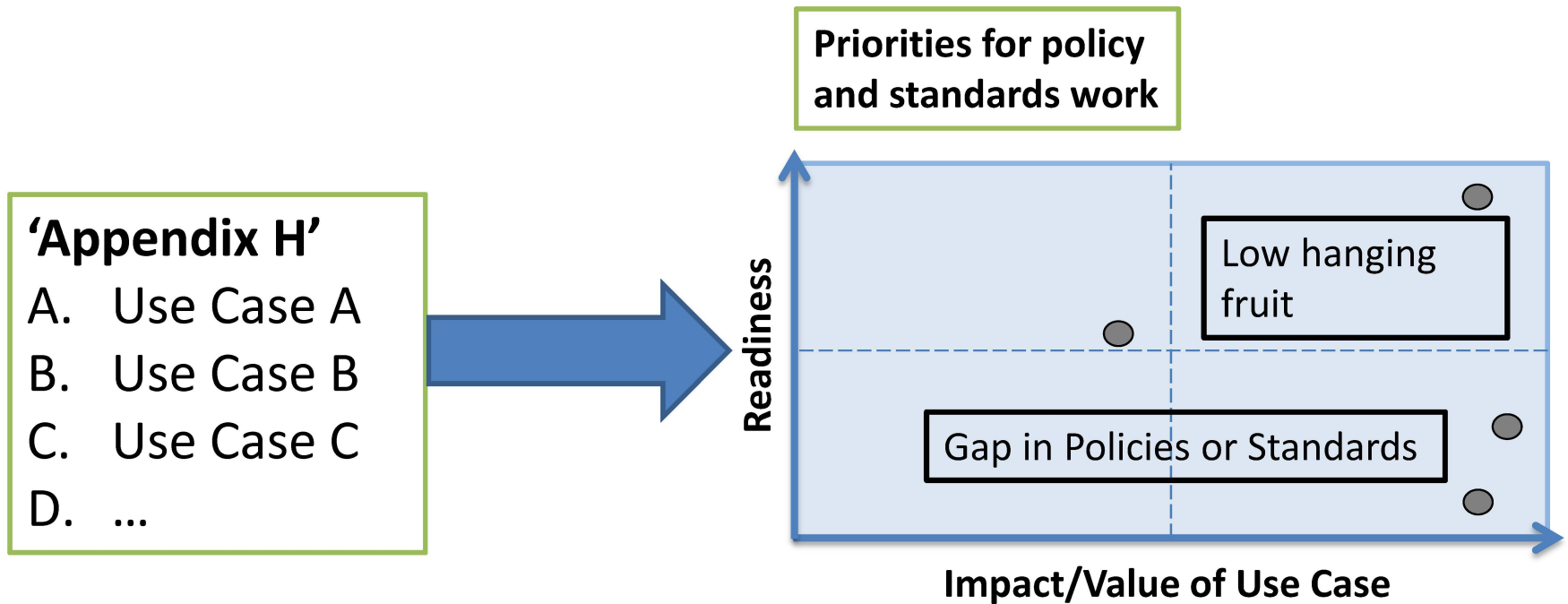


- An interoperability use case tells a story that defines:
 - Problem to solve
 - Data needed
 - Participants and workflow
- Use cases should describe each of these elements with broad applicability, yet sufficient degree of specificity to drive requirements and policies

Conceptual Overview of Prioritization Elements



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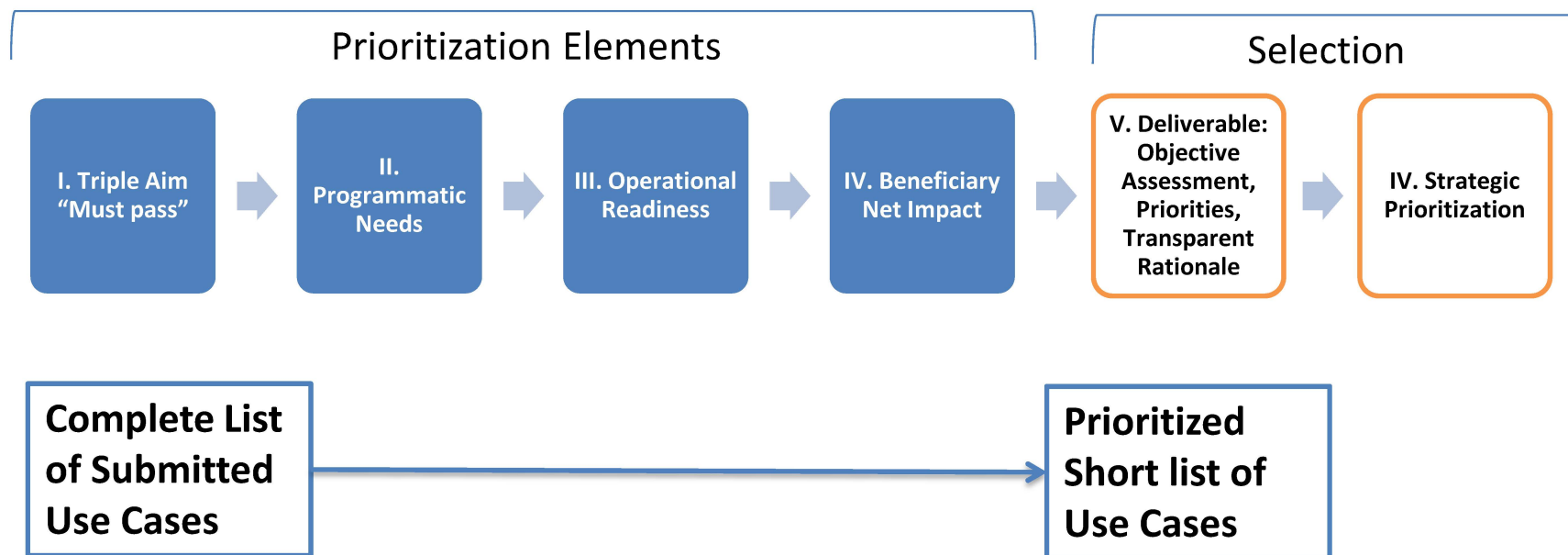


Process Overview

Two-Step Process



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1. Identify important attributes of high priority use cases
2. Identify must-pass impact criteria = triple aim
3. Apply impact criteria to Appendix H submitted use cases (56 → 15)
4. Organize exemplar use cases into thematic visions
5. Score high priority exemplars on other attributes (programmatic needs, readiness, beneficiaries)
6. Review candidate set for global observations

I. Prioritization Element: Impact

'Must Pass'



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Objective

- Assess the impact of the use case on achieving the triple aim goals

Criteria Detail

- Healthy People/Healthy Communities: Improve the health of the U.S. population by supporting proven interventions to address behavioral, social and, environmental determinants of health in addition to delivering higher-quality care
- Better Care: Improve the overall quality, by making health care more patient-centered, reliable, accessible, and safe
- Affordable Care: Reduce the cost of quality health care for individuals, families, employers, and government

Evaluation

- Rating: 1 (Minimal impact on goal); 2 (Moderate impact on goal); 3 (Major impact on goal)



1. All members of a person's health team (including the individual and family caregivers) have appropriate, real-time access to comprehensive, longitudinal, cross-organizational information to support informed clinical decision making and care coordination.
2. Individuals can appropriately access, interpret, and engage in bidirectional exchange of information (including person-originated data) about their health status with members of their health team to enable effective engagement, self-management, and shared decision making.



3. Health team members appropriately share information across the continuum (including the home), noting care transitions, identifying gaps, and supporting care coordination
4. De-identified clinical, claims and other health data (e.g. public-health sources, social determinants of health) are linked and matched from multiple sources with robust identity management to use for research, public health, and quality improvement
5. Providers report and receive (bidirectional) public health data routinely as a byproduct of using the EHR to provide care and use public health data to guide patient specific clinical decisions and interventions.



Vision Statement #1. All members of a person’s health team (including the individual and family caregivers) have appropriate, real-time access to comprehensive, longitudinal, cross-organizational person-specific information to support informed clinical decision making and care coordination

- 1.1 A healthcare professional accesses and imports elements of a common clinical dataset on an individual they are treating from the EHRs of other providers who have cared for the same patient, in order to improve coordination of care across settings
- 1.2 An individual queries for a common clinical dataset from all of their healthcare providers and receives this data as a single aggregated record to support better self-management.

Vision Statement #2. Individuals can appropriately access, interpret, and engage in bidirectional exchange of information (including person-generated data) about their health status with members of their health team to enable effective engagement, self-management, and shared decision making.

- 2.1 An individual (or their family member/personal caregiver) sends person-generated data automatically from home-based medical devices (e.g., BP cuffs, glucometers and scales) to the individual's health record
- 2.2 A health professional's system automatically sends alerts to an individual regarding reminders for preventative screenings, care and medication regimens based on the individual’s own care history, to increase adherence to recommended preventive care



Vision Statement #3. Health team members appropriately share information across the continuum (including the home), noting care transitions, identifying gaps, and supporting care coordination

3.1 A primary care provider sends a specialist a basic set of patient information consisting of structured data and free electronic text to support more effective care coordination

3.2 A specialist sends a primary care provider a basic set of patient information consisting of structured data and free electronic text, including the findings of a consultation or determination that no consult is needed, to support more effective care coordination

Vision Statement #4. De-identified clinical, claims and other health data (e.g. public-health sources, social determinants of health) are linked and matched from multiple sources with robust identity management to use for research, public health, and quality improvement

4.1 A payer links clinical quality data from providers with administrative cost data to support more accurate assessment of value in value-based payment models.

Vision Statement #5. De-identified clinical, claims and other health data (e.g. public-health sources, social determinants of health) are linked and matched from multiple sources with robust identity management to use for research, public health, and quality improvement

5.1 Providers automatically send syndromic surveillance data (including de-identified data) to public health departments to improve public health monitoring

II. Prioritization Element: Programmatic Need

Programmatic Considerations



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Objective

- Assess the relevance and enabling criticality for key national programmatic priorities.

Criteria Detail

National Quality Strategy Priorities

- *Safety*
- *Patient Engagement*
- *Care Prevention.*
- *Community.*
- *Affordability.*
- *Coordination*

HHS Delivery System Reform Goals

- *50% of Medicare payments through alternate payment models by 2018*

Interoperability Roadmap

- *2015 – 2017 - 3 Year: Send, receive find and use common clinical data set*

Evaluation

- Rating: 0 (Not relevant to need); 1 (Moderately supportive of need); 2 (Strongly supportive of need)

III. Prioritization Element: Readiness

Phasing – Timing



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Objective

- Assess current barriers or facilitators affecting the timing of widespread adoption of the use case

Criteria Detail

- **Business and Cultural Environment.** Is there a clear business case supporting adoption of the use case? Will stakeholders be receptive to the use case or reluctant to adopt?
- **Technical Environment.** Are the standards needed to support the use case available and mature? How much effort will be required to advance standards relative to current state? What key dependencies in the broader technology environment will help or hinder adoption? Software developer burden?
- **Stakeholder Cost/Benefit Considerations.** What financial, opportunity, and time costs will stakeholders incur in order to adopt the use case? How will adoption of the use case impact provider experience?
- **Policy Environment.** Does the current policy environment (e.g. payment and privacy policy) support or hinder adoption of the use case? Is adoption contingent on any major policy dependencies?

Evaluation

- Rating: -2 (Factor very adverse); -1 (Factor moderately adverse); 0 (Factor not relevant); 1 (Factor moderately supportive); 2 (Factor very supportive)

IV. Prioritization Element: Beneficiaries

Multi-stakeholder Perspective



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Objective

- Identify stakeholders that are the primary beneficiaries of adoption of the use case

Criteria Detail

1. Individual
2. Community
3. Health Professional
4. Public Health
5. Research
6. Payer

Evaluation

- Rating: -2 (Very negative net impact); -1 (Moderately negative net impact); 0 (No Impact); 1 (Moderately positive net impact); 2 (Very positive net impact)

Use Case Scoring Tool

Global View



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Vision Statement	II. Programmatic Needs								III. Operational Readiness			IV. Beneficiary Net Impact								
	NQS: Safer	NQS: PI Eng	NQS: Care Coord	NQS: Prevention	NQS: Community	NQS: Afford	2015-2017	2018	Rating: -2 (Factor very adverse)	Bus. and Cultural	Tech. Environment	Stakeholder Effort	Policy Environment	1.Consumer	2.Community	3.Provider	4.Public Health	5.Research	6.Payer	
The Vision Statement represents a broad future-oriented goal for how participants will utilize information to support the health of individuals.	To what degree does UC support safer care/reduce	To what degree does UC ensure each person and	To what degree does UC promote effective coordination of	To what degree does UC promote prevention and	To what degree does UC support communities to enable healthy	To what degree does UC make care more affordable/support new	To what degree is UC needed to help providers and individuals send/find/receive a	To what degree is UC needed for success in alt. payment models (50% of Medicare payments by	To what degree are business and cultural factors supportive of UC adoption?	To what degree is the technical environment (e.g. available, mature standards) supportive of UC adoption?	How significant is the \$\$/operational burden on stakeholders implementing the UC? (Z=minimal burden:	To what degree is the state/local/federal policy environment supportive of adoption?								
All members of a person's health team (including the individual and family caregivers) have appropriate, real-time access to comprehensive, longitudinal, cross-organizational information to support informed clinical decision making and care coordination.	2.00	1.00	1.88	1.75	0.50	1.50	2.00	1.63	0.63	-0.63	-0.88	0.25	1.63	0.88	1.63	0.63	0.63	0.63	0.88	
Individuals can appropriately access, interpret, and engage in bidirectional exchange of information (including person-originated data) about their health status with members of their health team to enable effective engagement, self-management, and shared decision-making.	1.25	1.88	1.25	1.38	0.88	1.25	1.75	1.13	-0.25	-0.63	-1.13	0.25	1.63	0.63	0.88	0.38	0.38	0.00	0.38	
Health team members appropriately share information across the continuum (including the home), noting care transitions, identifying gaps, and supporting care coordination.	1.25	1.50	1.00	1.25	0.75	1.00	0.63	1.25	0.38	-0.50	-0.50	0.13	1.50	0.38	0.75	0.25	0.25	0.25	0.63	
De-identified clinical, claims and other health data (e.g. public health sources, social determinants of health) are	1.57	1.71	1.14	1.86	0.71	1.43	0.43	1.57	1.14	1.29	0.43	0.43	1.43	0.43	1.43	0.86	0.14	0.14	1.14	
Providers report and receive public health data routinely as a byproduct of using the EHR to provide care and use public	1.86	0.43	2.00	1.29	0.14	1.00	1.57	1.71	0.57	0.29	-0.14	0.43	1.29	0.14	1.29	0.14	0.14	0.14	1.14	
	1.88	0.50	2.00	1.25	0.13	1.13	1.63	1.75	0.25	0.13	-0.38	0.38	1.50	0.13	1.63	0.13	0.25	0.25	1.38	
	0.88	0.25	0.75	1.13	1.00	1.63	0.50	1.50	0.13	-0.25	-0.63	-0.25	0.88	1.00	1.38	1.13	1.00	1.00	1.75	
	1.38	0.00	0.50	1.63	1.88	0.88	0.38	0.75	0.25	-0.38	-0.50	0.25	0.75	1.63	0.88	1.75	0.50	0.50	0.75	



- Two-stage prioritization process separates “technical” considerations from programmatic and strategic needs to inform policy decisions
- Attributes enumerated were:
 - Appropriate
 - Straight-forward to assess
- Consider additional analysis:
 - Inter-rater variability
 - Delphi scoring to move towards consensus
- Matrix view provides global view to identify gaps and address programmatic needs



- Federal agencies- can leverage use process to identify/reach consensus on top use cases with consideration for respective programmatic needs
- States- can use this in combination with or as their own use case prioritization process as part of their own roadmap activities
- Beneficiaries- can leverage for delineating use case gaps and net impact across types (consumer, community, provider, public health, research, payer)



- Prioritization process
 - Impact
 - Programmatic needs
 - Market/industry readiness for phasing
 - Beneficiaries
- Vision statements and exemplar use cases
- Priority use case examples



QUESTIONS

ID	Vision Statement	ID	Exemplar Use Case	I. Impact			II. Programmatic Needs						III. Operational Readiness				IV. Beneficiary Net Impact							
				Rating: 1 (Minimal impact on goal); 2 (Moderate impact on goal); 3 (Major impact on goal)			Rating: 0 (Not relevant to need); 1 (Moderately supportive of need); 2 (Strongly supportive of need)						Rating: -2 (Factor very adverse); -1 (Factor moderately adverse); 0 (Factor not relevant); 1 (Factor moderately supportive); 2 (Factor very supportive)				Rating: -2 (Very negative net impact); -1 (Moderately negative net impact); 0 (No impact); 1 (Moderately positive net impact); 2 (Very positive net impact)							
				Health	Care	Cost	NQS: Safer	NQS: Pt Eng	NQS: Care Coord	NQS: Prevention	NQS: Community	NQS: Afford	2015 - 2017	2018	Bus. and Cultural	Tech. Environment	Stakeholder Effort	Policy Environment	1. Individual	2. Community	3. Health Professionals	4. Public Health	5. Research	6. Payer
	The Vision Statement represents a broad future-oriented goal for how participants will utilize information to support the health of individuals.		The Exemplar Use Case (UC) describes one specific interaction between participants/systems under the Vision Statement, the data exchanged by the participants, and the outcome/purpose of the interaction.	UC supports proven interventions to address determinants of health.	UC makes health care more pt-centered, reliable, accessible, and safe.	UC reduces cost of quality care for individual, employer, govt, etc.	To what degree does UC support safer care/reduce harm?	To what degree does UC ensure each person and family is engaged?	To what degree does UC promote effective coordination of care?	To what degree does UC promote prevention and effective treatment?	To what degree does UC enable healthy living?	To what degree does UC make care more affordable/support new delivery models?	To what degree is UC needed to help providers and individuals send/find/receive a common clinical data set by 2017?	To what degree is UC needed for success in all payment models (50% of Medicare payments by 2018)?	To what degree are business and cultural factors supportive of UC adoption?	To what degree is the technical environment (e.g. available, mature standards) supportive of UC adoption?	How significant is the \$\$/operational burden on stakeholders implementing the UC? (2=minimal burden; -2=significant burden)	To what degree is the state/local/federal policy environment supportive of adoption?						
1	All members of a person's health team (including the individual and family caregivers) have appropriate, real-time access to comprehensive, longitudinal, cross-organizational information to support informed clinical decision making and care coordination.	1.1	A healthcare professional accesses and imports elements of a common clinical dataset on an individual they are treating from the EHRs of other providers who have cared for the same patient, in order to improve coordination of care across settings.	2.38	2.88	2.63	2.00	1.00	1.88	1.75	0.50	1.50	2.00	1.63	0.63	-0.63	-0.88	0.25	1.63	0.88	1.63	0.63	0.63	0.88
		1.2	An individual queries for a common clinical dataset from all of their healthcare providers and receives this data as a single aggregated record to support better self-management.	1.88	2.50	1.75	1.25	1.88	1.25	1.38	0.88	1.25	1.75	1.13	-0.25	-0.63	-1.13	0.25	1.63	0.63	0.88	0.38	0.00	0.38
2	Individuals can appropriately access, interpret, and engage in bidirectional exchange of information (including person-originated data) about their health status with members of their health team to enable effective engagement, self-management, and shared decision making.	2.1	An individual (or their family member/personal caregiver) sends person-generated data automatically from home-based medical devices (e.g., BP cuffs, glucometers and scales) to the individual's health record.	1.13	1.50	1.38	1.25	1.50	1.00	1.25	0.75	1.00	0.63	1.25	0.38	-0.50	-0.50	0.13	1.50	0.38	0.75	0.25	0.25	0.63
		2.2	A health professional's system automatically sends alerts to an individual regarding reminders for preventative screenings, care and medication regimens based on the individual's own care history, to increase adherence to recommended preventative care.	1.86	2.14	2.00	1.57	1.71	1.14	1.86	0.71	1.43	0.43	1.57	1.14	1.29	0.43	0.43	1.43	0.43	1.43	0.86	0.14	1.14
3	Health team members appropriately share information across the continuum (including the home), noting care transitions, identifying gaps, and supporting care coordination.	3.1	A primary care provider sends a specialist a basic set of patient information consisting of structured data and free electronic text to support more effective care coordination.	1.57	2.29	2.00	1.86	0.43	2.00	1.29	0.14	1.00	1.57	1.71	0.57	0.29	-0.14	0.43	1.29	0.14	1.29	0.14	0.14	1.14
		3.2	A specialist sends a primary care provider a basic set of patient information consisting of structured data and free electronic text, including the findings of a consultation or determination that no consult is needed, to support more effective care coordination.	1.63	2.50	2.13	1.88	0.50	2.00	1.25	0.13	1.13	1.63	1.75	0.25	0.13	-0.38	0.38	1.50	0.13	1.63	0.13	0.25	1.38
4	De-identified clinical, claims and other health data (e.g. public health sources, social determinants of health) are linked and matched from multiple sources with robust identity management to use for research, public health, and quality improvement.	4.1	A payer links clinical quality data from providers with administrative cost data to support more accurate assessment of value in value-based payment bidirectional models.	1.63	1.63	1.88	0.88	0.25	0.75	1.13	1.00	1.63	0.50	1.50	0.13	-0.25	-0.63	-0.25	0.88	1.00	1.38	1.13	1.00	1.75
5	Providers report and receive public health data routinely as a byproduct of using the EHR to provide care and use public health data to guide patient specific clinical decisions and interventions.	5.1	Providers automatically send syndromic surveillance data (including de-identified data) to public health departments to improve public health monitoring.	1.75	1.25	1.13	1.38	0.00	0.50	1.63	1.88	0.88	0.38	0.75	0.25	-0.38	-0.50	0.25	0.75	1.63	0.88	1.75	0.50	0.75