

A Symposium in the NIC of Time: Advancing Information-Sharing in California and Beyond

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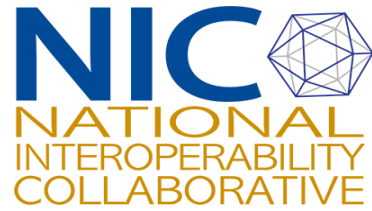
NATIONAL INTEROPERABILITY
COLLABORATIVE UNDERWRITER

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A Symposium in the NIC of Time: Advancing Information Sharing in California and Beyond

Overview of NIC's Environmental Scan of Published Interoperability Guidance

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- Beth H. Johnson, MPH, Director, AcademyHealth



Interoperability Guidance

An Environmental Scan

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Acknowledgements

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National Interoperability Collaborative



Why Conduct an Environmental Scan?

- Identify activities and stakeholders that help define an ecosystem
- Identify guidance documents on interoperability
- Identify standards and best practices
- Analyze gaps in available guidance
- Develop plan for NIC to fill gaps with new products



Our Approach

- Identify Audiences
 - Programmatic
 - Technical
 - Management/Policy
- Conduct interviews with some key thought leaders
- Conduct exploratory search for guidance documents
- Perform systematic review
- Find common themes + gaps
- Present results and develop plan for next steps

National Interoperability Collaborative Environmental Scan Interviews

Context and Rationale

Despite ongoing advances in the fields of health and human services – and, most pointedly, in the numerous areas where those fields converge – a history of operating in “silos” impedes the far-greater progress that could be achieved through enhanced data interoperability and information-sharing, both within and across sectors. The purpose of this environmental scan is to identify and document best practices, challenges, and lessons learned with respect to models of data interoperability and implementation guidance and assistance, and to identify gaps and needs for future guidance and technical assistance focused on health and social care integration. To accomplish this, we will interview subject matter experts about key issues and directions for interoperability, review the peer-reviewed and grey literature providing policy and implementation guidance on interoperability, and assess the contents and impact of recent toolkits and other guidance on promoting interoperability and information exchange.

Interview Protocol

The following list of questions will guide our conversations with subject matter experts. As each interviewee’s background and perspective are varied, so too will be the composition of questions asked during each interview. Where we can add specifics related to the discussion, we may tailor the interview to enhance the richness of discussion.

All interviews will be recorded for notetaking purposes – no identifying information or attributable quotes will be published without permission.

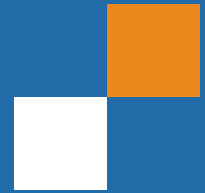
Participant Name:

Program Affiliation:

Position Title:

Interoperability of technology is generally defined as the ability for different systems and software to establish communication channels, accurately and efficiently share data, and use the exchanged information. (HIMSS, 2013)

1. What is your definition of interoperability? Please provide a brief description based on your experience, including what functional and governance components are needed to successfully achieve interoperability.
2. To successfully achieve interoperability, is it sufficient to receive and relay information through various data sharing mechanisms, or is it also necessary to build a common data infrastructure?
 - a. What is the difference between data sharing and interoperability?
3. Are there any comparable concepts in the human services arena? What are the best examples of information sharing in the social services sector?
4. To what extent would interoperability change workflows or improve outcomes in your sector?
5. From your perspective, in the last 3-5 years, where has your field made the most progress with respect to data interoperability? The least? Where do you see major opportunities?
6. What remaining gaps in knowledge / technology should be addressed to achieve interoperability? In your opinion, what aspects of interoperability are most critical to explore?
7. If we are looking for best practices about data sharing and moving towards interoperability, what are the resources or activities you think would help move the field forward?



Stakeholder Interviews

Key Themes



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Distinguishing between Data Sharing and Interoperability

Data Sharing

- Transaction of information between at least two entities
- Exchange of information (paper or electronic) could qualify
- Achievable

Interoperability

- Alignment of policies and rules
- Integration of systems
- Systems can exchange and interpret data
- Full interoperability remains elusive



Examples of Integrated Models from Interviewees

- Silicon Valley Regional Data Trust
- Immunization Registries
- TANF: structured data at state level allows aggregation at federal/national level
- Mississippi WIOA Hub (Workforce Innovation and Opportunity Act, 2014)
- Etc.

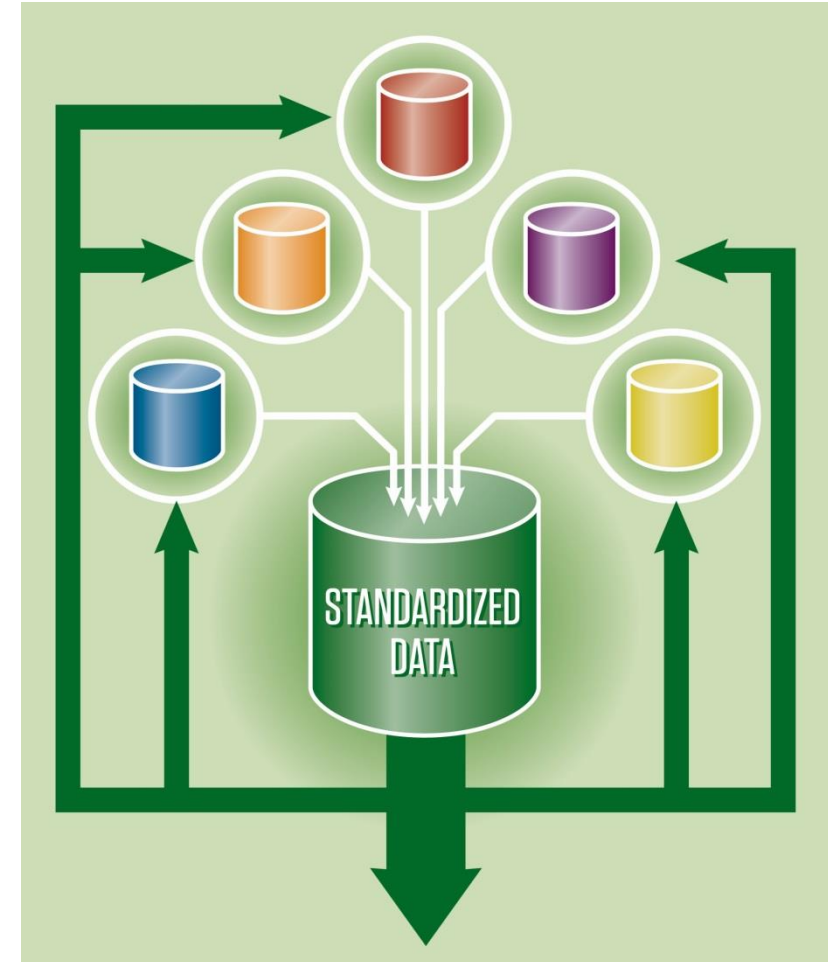
■ Influence of Interoperability on Workflow and Culture



- More efficient
 - Faster processing: get results sooner
 - Fewer errors
 - Potentially less costly
- Allows aggregation and analysis of data

■ ■ Importance of Standards

- All interviewees recognized importance of using standards
- Need common and coordinated infrastructure (does not have to be centralized)
- Need consensus among partners regarding which sets of standards to use




Overall Progress and Remaining Challenges

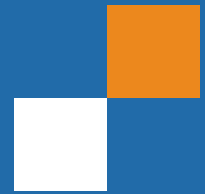


Progress

- Awareness of the importance of interoperability
- More acknowledgement of end-user design
- Agile development: modular procurement, with iterative and incremental design
- State data integration systems in NC, SC, WA, other states

Current Challenges / Barriers

- Breaches and pushback on data security/privacy
 - Lack of consensus on software standards
 - Codified/legal restrictions in sharing data
 - Lack of IT understanding among managers/executives
 - Mistrust: lack of incentives to share data
- 



Systematic Search

Early Findings



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■ Identifying Guidance Documents and Other Resources

- **Search Approach:**

- Search Grey Literature (Google) and Peer-Reviewed Literature (PubMed)
- Search Terms: interoperable*, data, system, data system, guidance, toolkit
- Search results (n=50)

- **Inclusion Criteria:**

- Nationally applicable or replicable
- Guidance or toolkit
- Published within last 7 years (2011-2018)

- Peer-reviewed and grey literature

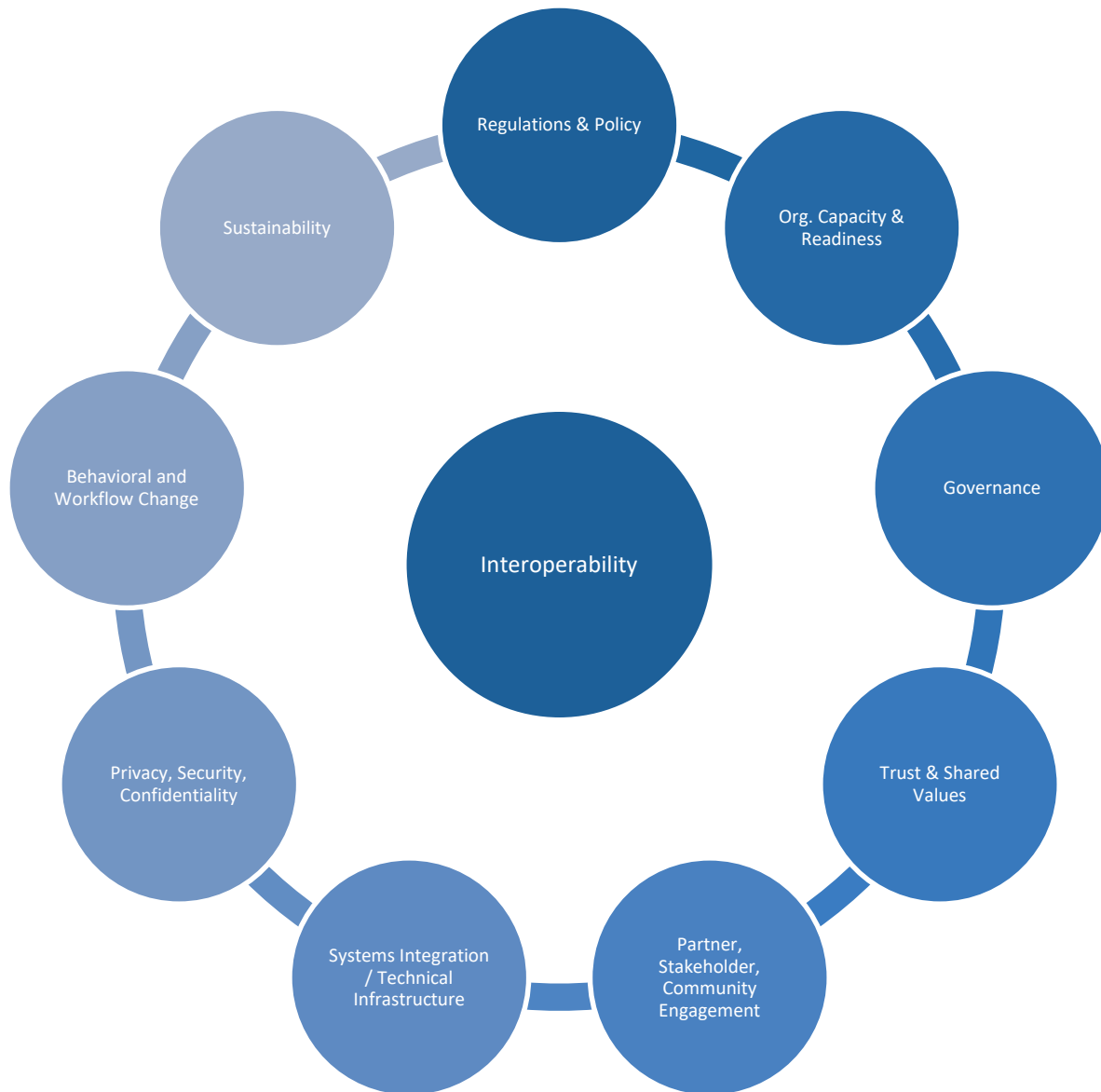
- **Exclusion Criteria**

- Medical device interoperability
- EHR certification guides
- Local/regional HIE guides
- Blog posts / news articles / opinion pieces
- Case studies
- Inte sources





Key Components



Additional Classifications



Sector



Year



Document Type

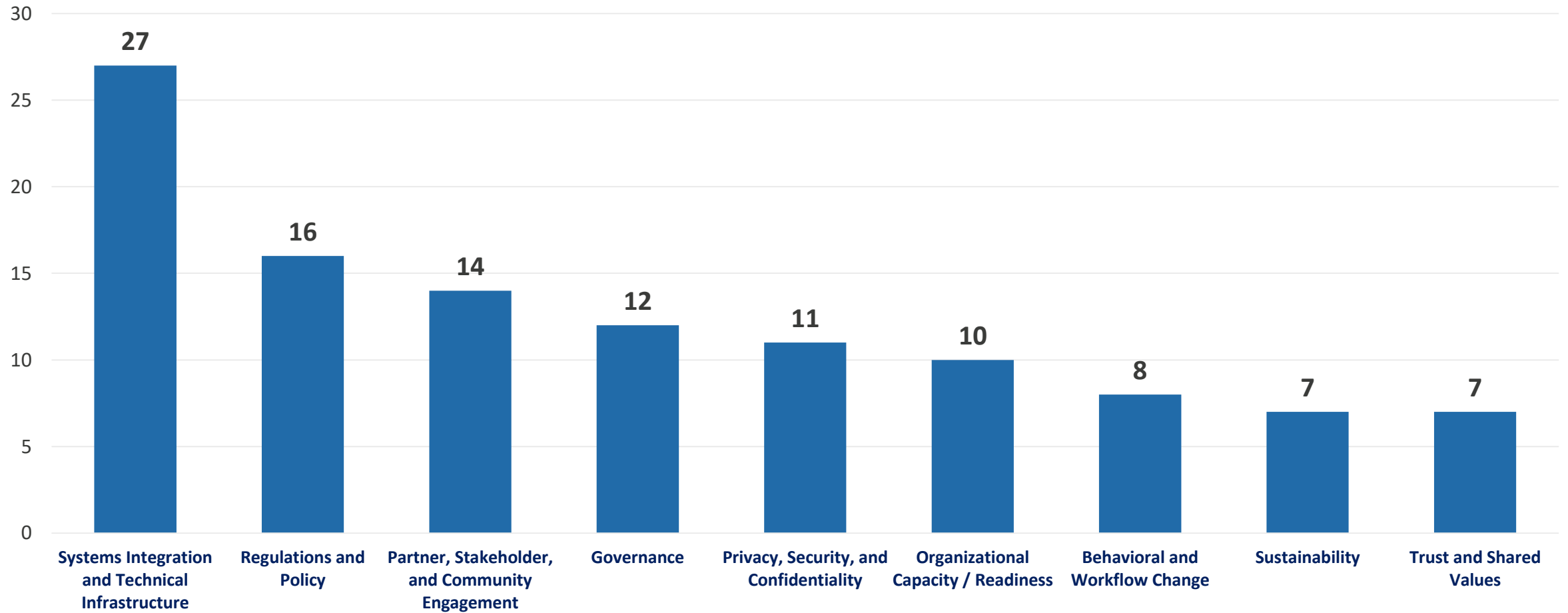


Resource Type

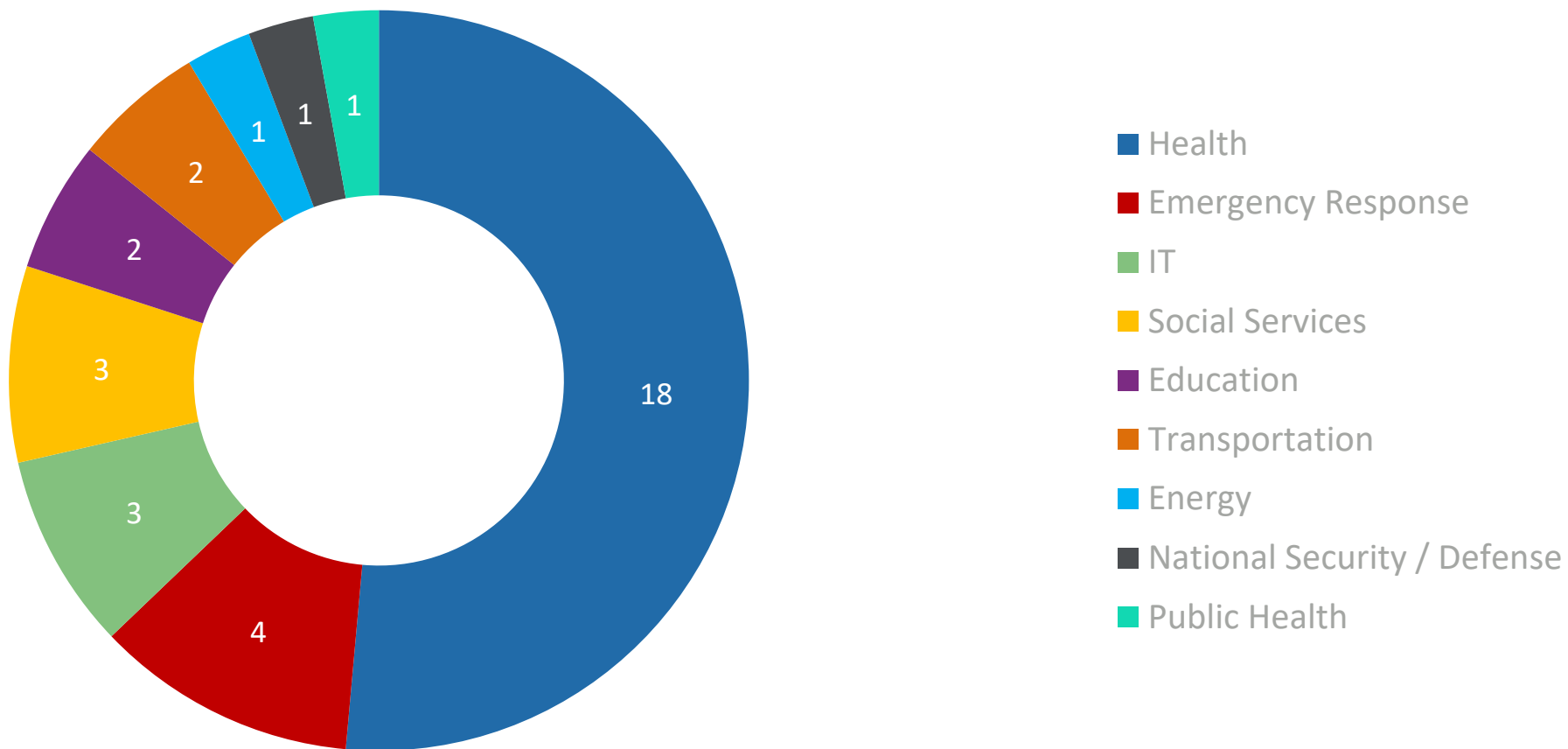


Relevance

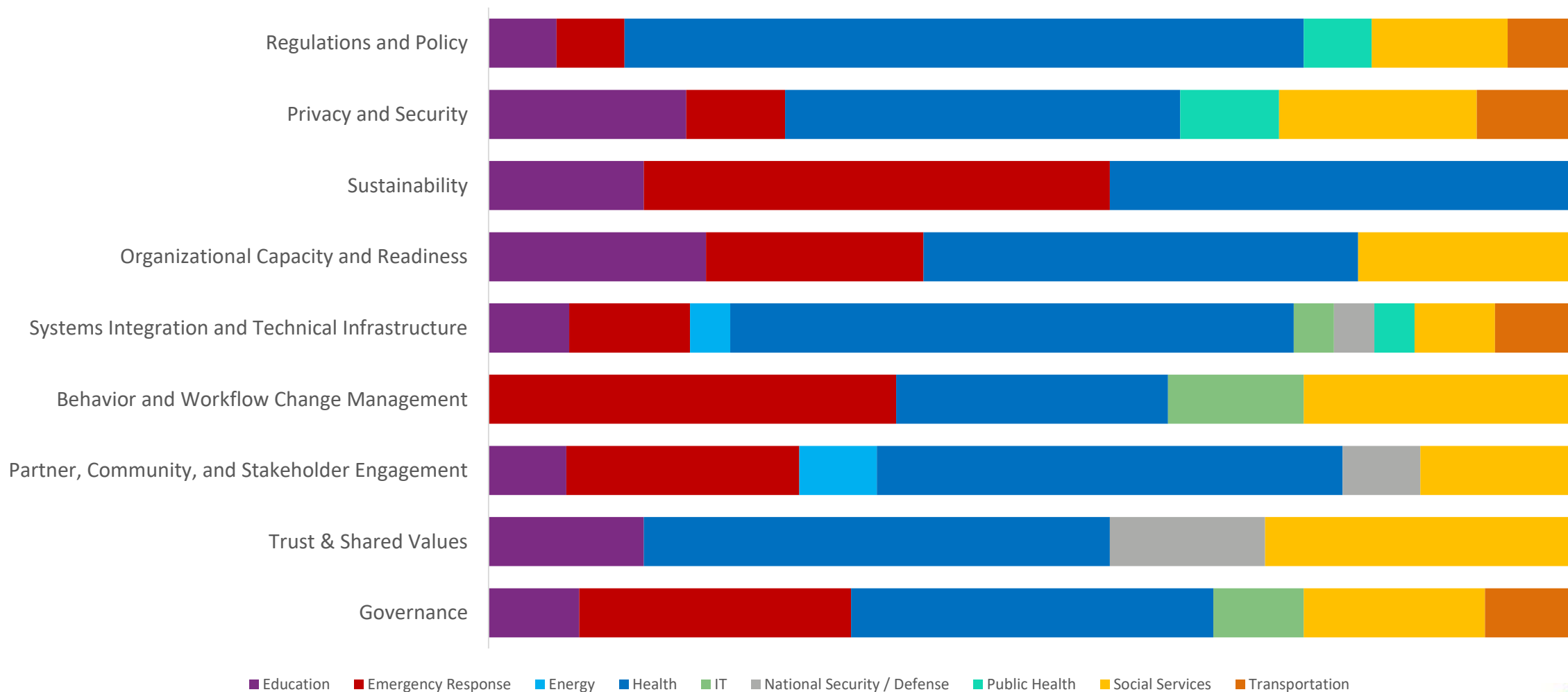
■ Prevalence of Content under Key Components across Resources



■ Largest Number of Guidance Resources from Health Sector



Contributions across Key Components, by Sector





Key Takeaways and Issues for Consideration

- Growing recognition of the value of interoperability, however that is defined
- Variety of standards documents and resources: one size does not fit all
- Shared sense of components of interoperability across sectors
- Similar barriers across sectors



Gaps and Current Needs

- Found less guidance on workflow, sustainability, trust, and shared values
- Need for more guidance on privacy / security / confidentiality
- Need forums to share knowledge, strategies, documents, toolkits
- Need to have an honest conversation about standards
- Learn how to shift from agency self-preservation mentality to promoting the public interest
- Crowd-source finding guidance from non-health sectors



Next Steps

- Discuss the domains and sectors with this audience: proof of concept (now)
- Release final scan (April 2018)
- Develop measures and metrics to assess readiness for interoperability (Summer 2018), then pilot test
- NIC privacy and confidentiality playbook (funding sought: early 2019)
- Harvest IT standards and best practices from this scan: compendium of guidance (March 2019)



Discussion