**Governance**

1. Interoperability has been hampered historically by a lack of incentives and by market fragmentation
   1. Technical, strategic, and financial considerations inhibit practical HIE
   2. Community organizations are fundamental to advanced health models and motivated to share data but sharing across care settings is not standardized
   3. Advanced health models are motivating providers to want to share data but integration across EHR systems is still a challenge
   4. The need for more comprehensive data, such as integrating social determinants data, requires governance and conventions on privacy
   5. Conventions for transport and content are still developing – lots of variation in the market
   6. TOC and VDT experience is that two challenges are significant: 1) coordination of trust across entities; and 2) workflow and process innovation to accompany technical innovation
2. Governance is required to overcome this collective action problem brought about by market fragmentation
   1. Governance means a common understanding among a group of participants about technical, legal, and business alignment to achieve an agreed upon set of goals, and clearly articulated expectations about appropriate behaviors required to achieve those goals
   2. Does not require government, and indeed, in other most other industries, market-based governance has proven to be more effective and durable over time
   3. Federal and state governments are significant market participants in health care and thus have considerable influence on interoperability and governance through market actions alone
3. Governance defines networks that are fundamental to interoperability because they solve a variety of problems that go beyond just technical infrastructure
   1. Access to networks controlled by contracts with participants that create ground rules for exchange
   2. Building a network to solve business and legal challenges will be as complex as solving the technical problems of APIs which may be stove-piped by EHR without effective networks
4. As demand for interoperability has started to grow driven by Meaningful Use and by the growth in accountable care, governance networks have begun to form that are beginning to solve this collective action problem
   1. Local community initiatives for resource directories
   2. Advanced health models recognize importance of practical data-sharing
   3. Networks have up until recently been geographically focused but they are now forming along a number of affinity dimensions (vendor-driven networks, research-driven networks, etc)
   4. Patient-driven governance could become significant in the future as VDT and APIs give patients more visibility into and control over how their data is used
   5. The development of market ecosystems takes time, however, especially in the current situation where technology and payment models are both highly dynamic
5. If it follows the pattern of other industries, nationwide interoperability will be established by connecting market-based networks according to a common understanding of what is required for nationwide interoperability and what standards/approaches should be used for such requirements
   1. All networks don’t have to be the same, they just have to be able to bridge technical, legal, and business differences to meet the set of common transactions and behaviors that constitute nationwide interoperability
   2. For example, patient-matching, authentication and authorization, format and content conventions, patient permission, etc.
   3. A clear, concise, achievable, and widely-accepted definition of nationwide interoperability is a pre-requisite to achieving nationwide interoperability, and that definition is still evolving. The ONC Interoperability Roadmap provides useful guidance.
6. The market is making rapid progress in this area and the best approach for government at this point is to use the various levers at its disposal to catalyze and motivate market-based accountability and governance for interoperability
   1. Networks like DirectTrust, Care Everywhere, CommonWell, ehealth Exchange, Surescripts, and others are solving these problems among a growing number of providers, however, the need for cross-network bridging is now apparent
   2. Bridging would create nationwide interoperability through a “coordinated architecture”, which loosely couples data-sharing arrangements using standards and approaches based on internet principles and building blocks – eg, a “public API” that defines what should be universally available and under what set of terms
   3. Federal government can play a significant role in motivating market-based governance of nationwide interoperability through: transparency, building core infrastructure, guidance (eg privacy, network bridging standards), convening, incentive alignment (accountable care), operational alignment (market actors)
   4. Though the Federal Government has many market-reinforcing levers to shape and rapidly accelerate nationwide interoperability, alignment of those levers is an ongoing challenge
   5. Top-down regulation should be a last resort used only if nationwide interoperability does not progress according to a clearly defined set of metrics, goals, and timelines, which have not been articulated yet