What's Next for Quality Measurement

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PRE-MCLEAN
Global economy held back by the expense of ocean-going freight.

- **1937** Trucker Malcolm McLean fumes at slow cargo loading. “There has to be a better way.”

1970s-1980s
Fully Cellular Ships

- **1973** Container ships carry 4 million TEUs annually, with most ocean cargo containerized.
- **1970** ISO regulations stimulate international container shipping.
- **1972** Registered East Coast longshoremen have fallen by in the 20 years since 1952.
- **1977** U.S. transport deregulation enables intermodal companies (owning more than one transport mode).
- **1984** Carriers operate round-the-world services with larger ships.
- **1985** Sea-Docs, the first electronic Bill of Lading Registry pilot, speeds up container movements with better information flow.
- **1985** The first double-stack train service begins.

The Early Years
Early Cargo Ship

- **500-800 TEUs**

- **1950** US Army uses containers for supply movements during Korean War.
- **1956** Maiden voyage of McLean’s Ideal X. McLean’s fitting system improves security and loading times.
- **1959** The first quayside container crane is developed, slashing costs.

1990s
Post Panamax

- **4K-5K TEUs | 20x43x14.5 m**

- **1991** Six of the world’s ten largest ports are now in Asia.
- **1991** London’s Docklands opens, an example of urban rejuvenation re-using vacant dock land (as ports get fewer and larger).
- **1999** The first quayside container crane is developed, slashing costs.

2000s
Post Panamax Plus

- **6K-8K TEUs | 20x43x15.5 m**

- **2001** First residential container complex opens. Other repurposing includes agriculture, open

2010s
Triple E

- **13K TEUs | 40x59x15.5 m**

- **2013** 90% of global trade is sea borne, shipped in 700 million containers every year.
- **2017** Remote tracking systems are predicted to reach over 1 million containers.
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FHIR and Argonaut Implementation Guides (2015)

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Well, I of course don’t know the politics of Norway. But the issue is never technology.
One of the most respected and experienced digital health experts in the world last week called on the Australian Digital Health Agency (ADHA) to stop the current trajectory of the My Health Record (MHR) project immediately and refocus and prioritise investment where it will have real and near-term benefit for the Australian health system.
Challenges We Still Face

- Medical/legal precedent with storage, use, and alerts/reminders for patient generated healthcare data
- Data provenance
- Turning data into information, knowledge and wisdom
- Understanding normal variation
- Security and privacy concerns
What New Data Sources for Quality are Emerging?

- Internet of things and connected health devices are exploding
- Artificial Intelligence and Machine Learning are mainstream tools available from multiple platform providers
- The era of apps and cloud hosted services has arrived
- Application Programming Interfaces are increasing in number and sophistication
- Policy drivers including value-based purchasing, promoting interoperability program and telemedicine friendly reforms
Closing Thoughts

- The future for new approaches to quality measurement in 2019 is very bright
- Although government has a role as convener and catalyst, the real acceleration will happen in the private sector and from foundations
- The technology we need is already in place from the consumer sector
- API standards are rapidly maturing
- NCQA will be a key convener to help guide the agenda