Creating a Global Community for CPD

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HARVARD MEDICAL SCHOOL TEACHING HOSPITAL

50 YEARS 1970–2020 *Division of Clinical Informatics*

Communities of Practice

A community of practice is a group people who engage in a process of shared learning

Examples:

- Local Group
- Regional Societies
- National Professional Societies
- International Professional Societies
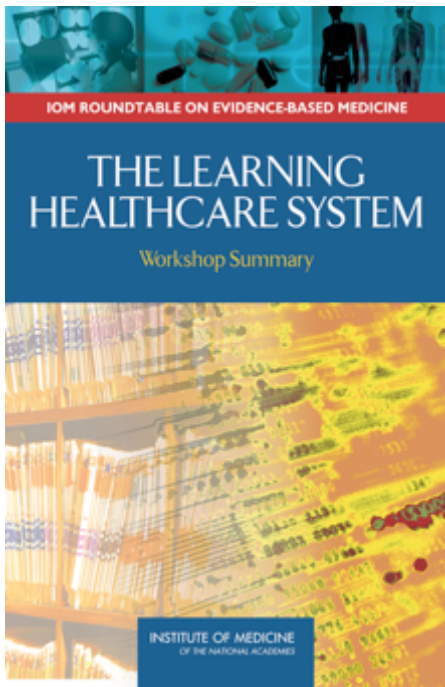
Challenge

- Limited Frequency of meetings, limited depth of collaborations

Questions:

- What are we trying to optimize?
- Who should be involved in the community?

Learn New Knowledge → Discuss with Peers → Apply in Local Context → Consult with Colleagues → Share Local Experience

The Learning Healthcare System

Vision: Our vision is for a healthcare system that draws on the best evidence to provide the care most appropriate to each patient, emphasizes prevention and health promotion, delivers the most value, adds to learning throughout the delivery of care, and leads to improvements in the nation's health.

Goal: By the year 2020, 90 percent of clinical decisions will be supported by accurate, timely, and up-to-date clinical information, and will reflect the best available evidence. We feel that this presents a tangible focus for progress toward our vision, that Americans ought to expect at least this level of performance, that it should be feasible with existing resources and emerging tools, and that measures can be developed to track and stimulate progress.

"The Learning Healthcare System", Institute of Medicine. The National Academies Press **2007** http://www.nap.edu/read/11903/chapter/1#ix .

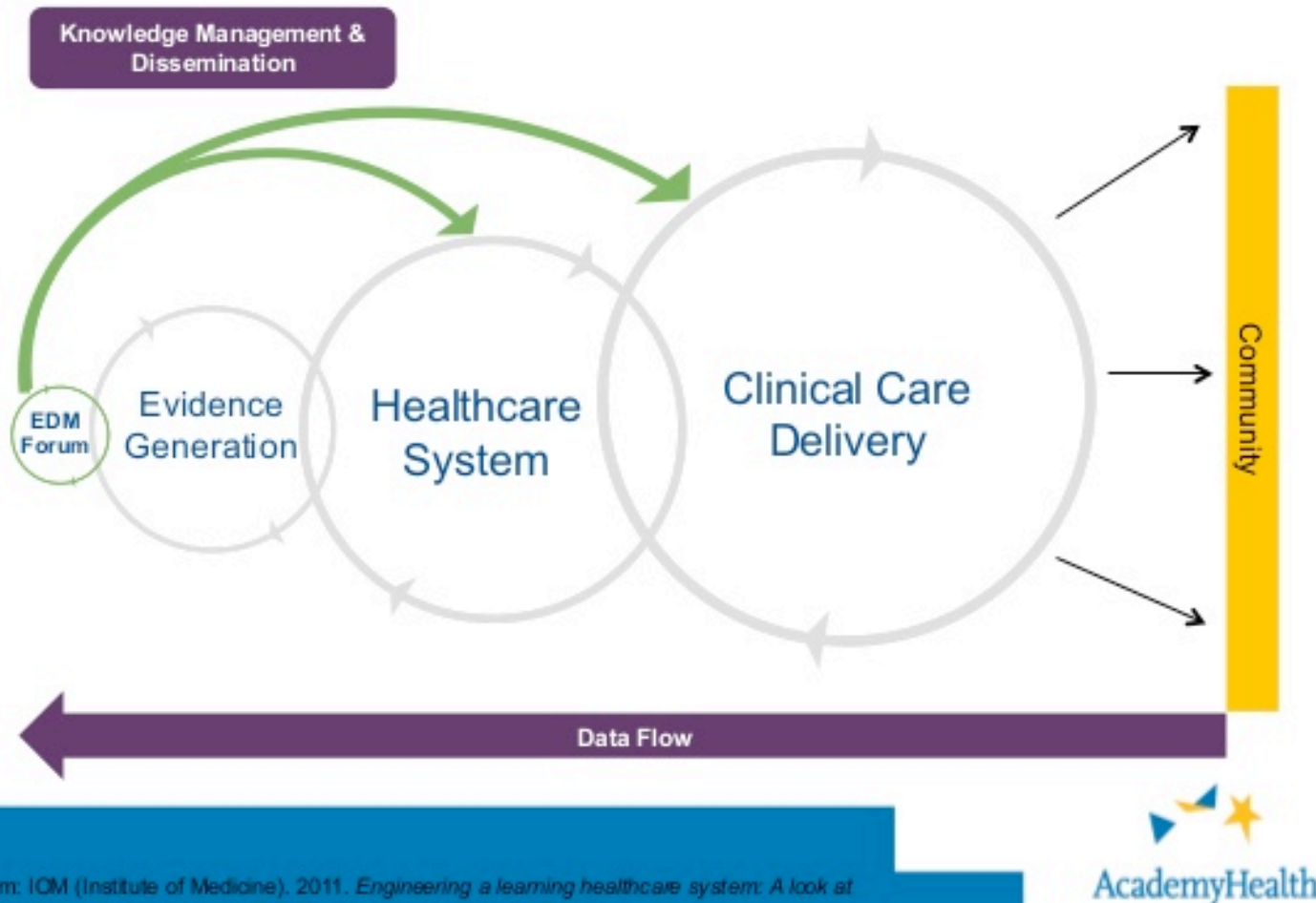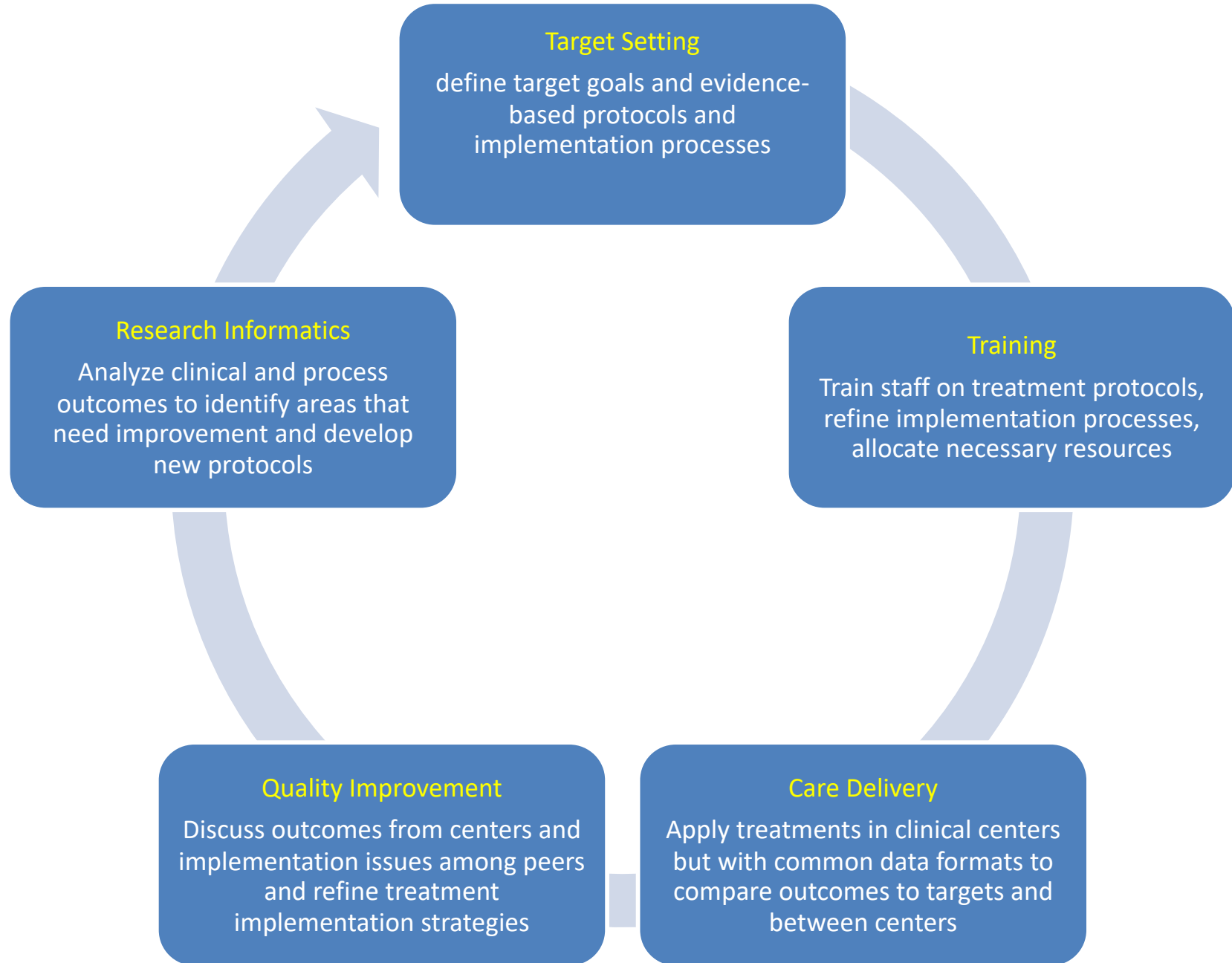# Generating Evidence to Build a Learning Health System

Figure adapted from: IOM (Institute of Medicine). 2011. *Engineering a learning healthcare system: A look at the future: Workshop summary.* Washington, DC: The National Academies Press.
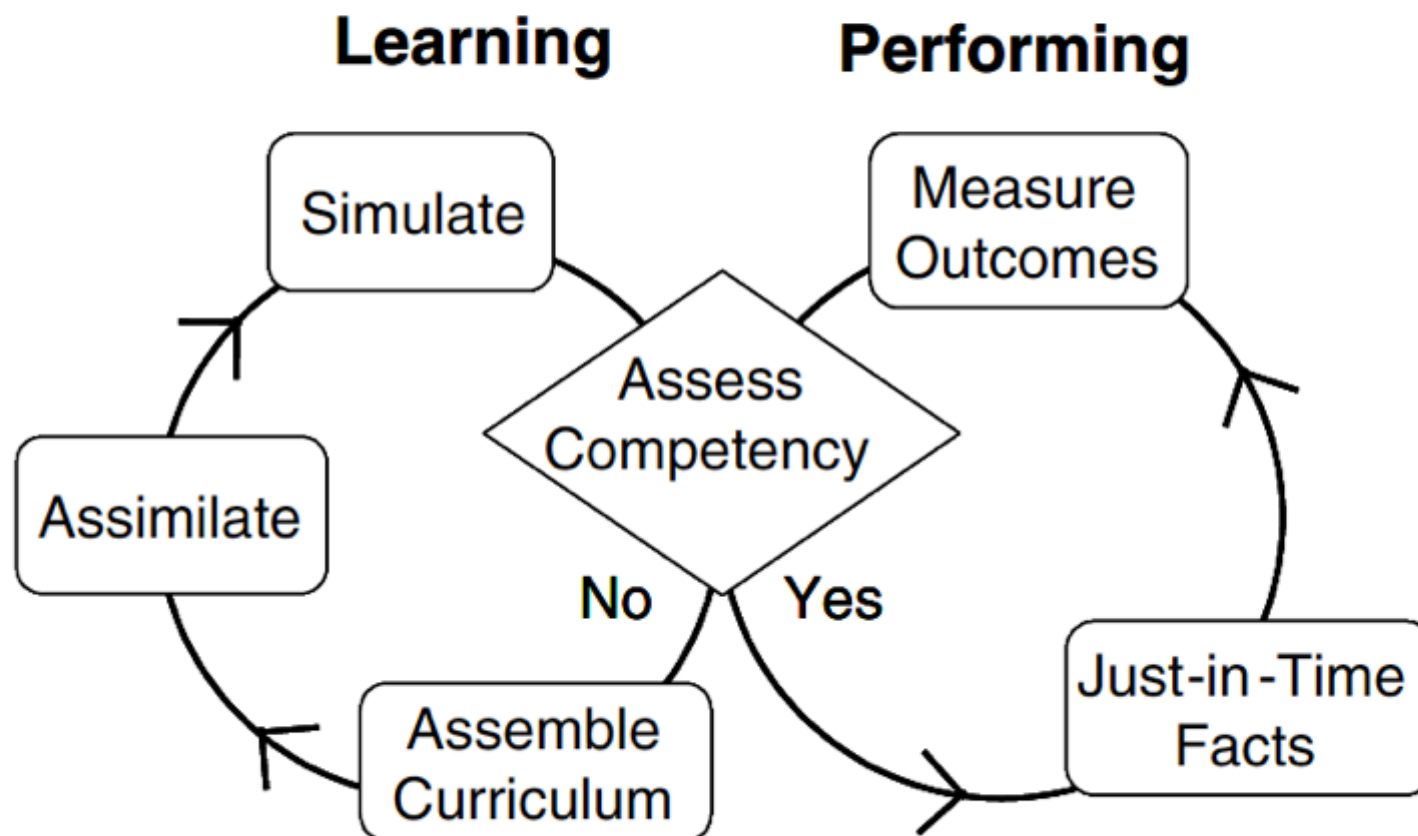
Continuous Learning Healthcare System

Target Setting

define target goals and evidence-based protocols and implementation processes

Training

Train staff on treatment protocols, refine implementation processes, allocate necessary resources

Research Informatics

Analyze clinical and process outcomes to identify areas that need improvement and develop new protocols

Care Delivery

Apply treatments in clinical centers but with common data formats to compare outcomes to targets and between centers

Quality Improvement

Discuss outcomes from centers and implementation issues among peers and refine treatment implementation strategies

FIGURE 7-3 Continuous learning during performance.

St. Jude Cure4Kids

Cure4Kids Learning Platform
- online educational seminars
- online courses
- clinical case library
- best practice care guidelines
- competency-based curriculums
- online web meeting services
- group shared documents
- online clinical case discussions

Clinical Collaborations
- second opinion consults
- cancer registry POND4Kids
- shared clinical protocols
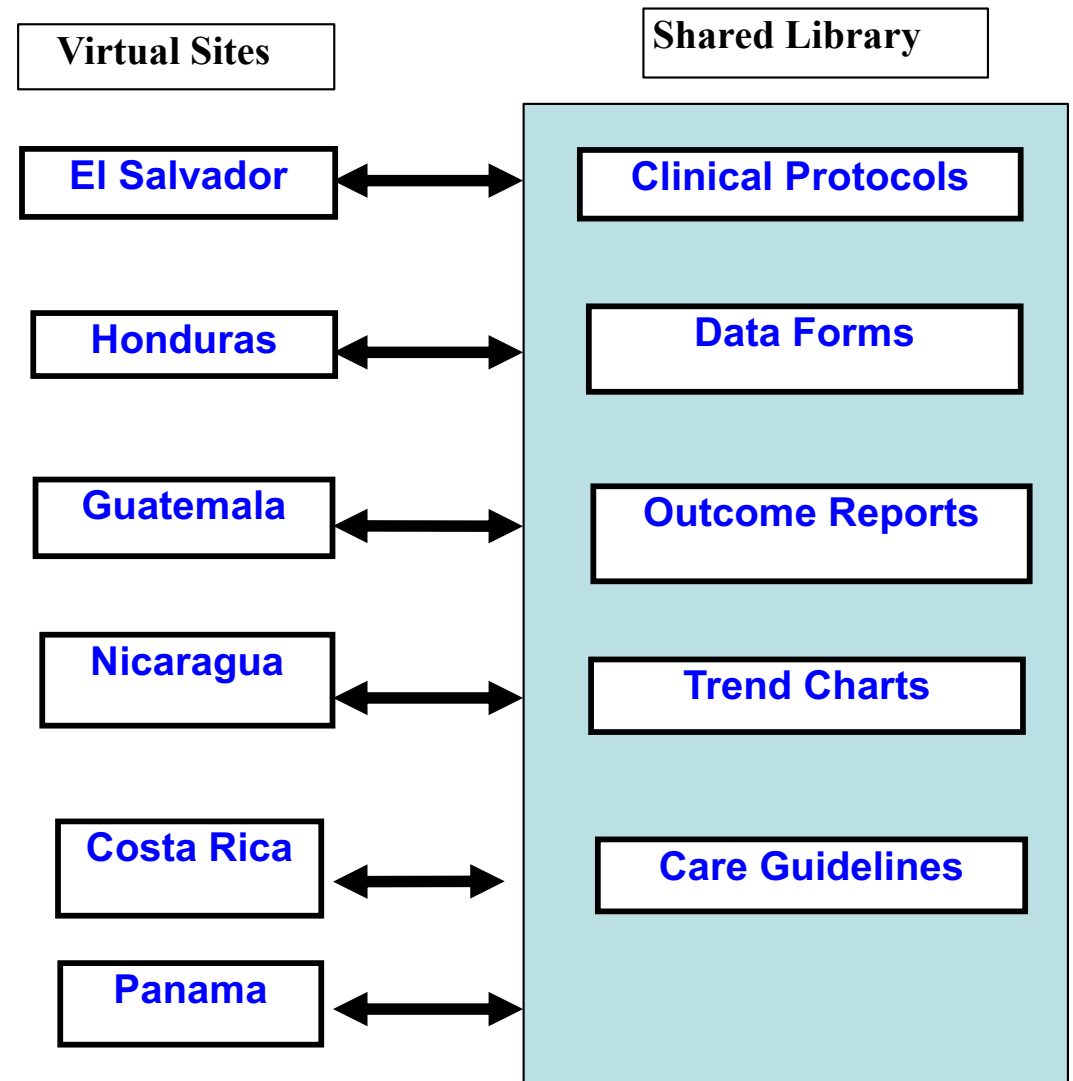
Online Live Group Clinical Discussions

400 online communities formed worldwide on Cure4Kids for creating evidence-based care guidelines, training of staff, sharing of health care delivery strategies for implementation, and data sharing for comparing outcomes

Source: Guimera D, Hernandez H, Huertas M, De Colsa A, Robles VP, Johnson K, Quintana Y, Caniza MA. Combined web-based distance learning followed by brief on-site practice: a cost-effective way of training infection preventionists in countries with limited resources. Am J Infect Control 39:E152-E153, 2011.

Santiago TC, Jenkins JJ, Pedrosa F, Billups C, Quintana Y, Ribeiro RC, Qaddoumi I. Improving the histopathologic diagnosis of pediatric malignancies in a low-resource setting by combining focused training and telepathology strategies. Pediatric Blood Cancer. 2012 Feb 7.

AlFaar A, Kamal S, Abouelnaga S, Greene W, Quintana Y, Ribeiro R, Qaddoumi I. International Telepharmacy Education: Another Venue to Improve Cancer Care in the Developing World. Telemedicine and e-Health. 2012 Jul-Aug;18(6):470-4.

POND4Kids Global Data Sharing

Virtual Sites

- El Salvador
- Honduras
- Guatemala
- Nicaragua
- Costa Rica
- Panama

Shared Library

- Clinical Protocols
- Data Forms
- Outcome Reports
- Trend Charts
- Care Guidelines

Quintana Y, Patel AN, Arreola M, Antillon FG, Ribeiro RC, Howard SC. POND4Kids: a global web-based database for pediatric hematology and oncology outcome evaluation and collaboration. Stud Health Technol Inform. 2013;183:251-6. PubMed PMID: 23388293.

St. Jude Cure4Kids - Results

- Increased survival rates from 20% to over 50% for common types of cancer in Central America (2002-2014)

- 400 online communities expanded to include other disciplines for multi-disciplinary teamwork

- Multiplier effect – impact beyond pediatric-oncology unit

- Quality Improvement - Late referrals, Toxic deaths

Sources:
1) Richardson, S., Banks, M.S., Kettinger, W., and Quintana, Y. IT and Agility in the Social Enterprise: A Case Study of St. Jude Children's Research Hospital's 'Cure4Kids' IT-Platform for International Outreach. Journal of the Association of Information Systems. 2014: 15(1), pp 1-32. .
2) Quintana Y, Patel AN, Arreola M, Antillon FG, Ribeiro RC, Howard SC. POND4Kids: A Global Web-based Database for Pediatric Hematology and Oncology Outcome Evaluation and Collaboration. Stud Health Technol Inform. 2013;183:251-6.

Alicanto - Collaboration Learning System
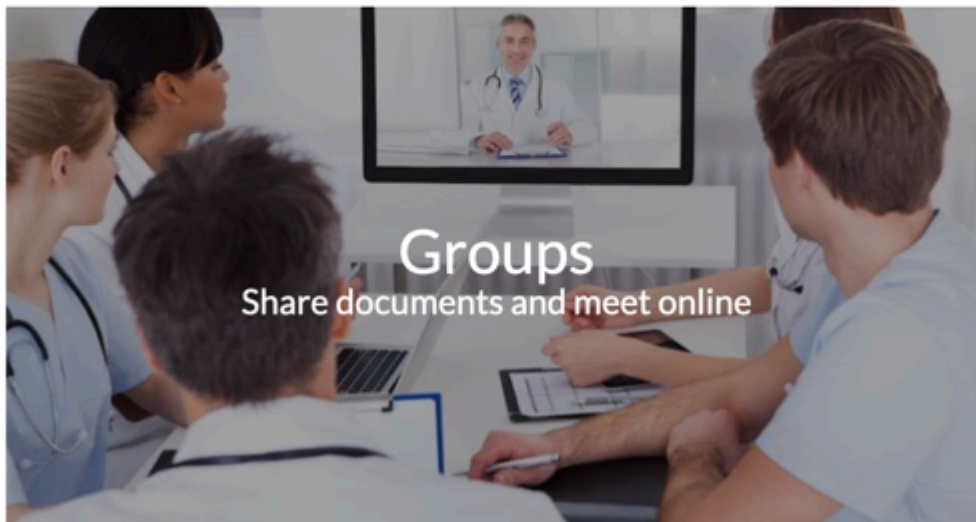
http://www.alicantocloud.com

- Developed by **Division of Clinical Informatics** at Beth Israel Deaconess Medical Center in collaboration with Boston Children's Hospital

- Alicanto is a **learning platform** that supports online learning and collaboration

- Healthcare is many **silos of data and systems**

- Alicanto aims to **integrate services** into a common user interface to give users a seamless experience and access to content and services by role permissions

- Named after Alicanto, a mythical **Chilean** bird that leads miners out of mine shafts by lighting a path out of the **depths of silos**.

Alicanto BIDMC

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BIDMC Alicanto Learning Network

GROUPS   LIBRARY   LEARNING   TRIALS   ABOUT US   HELP

Alicanto BIDMC

Suporting the communities of practice at Beth Israel Lahey Health Network

Learn More

Groups
Share documents and meet online

Consult
Discuss Cases

BILH Cancer
Clinical Resources

My Alicanto
Your meetings and more...

Help
How to Use Alicanto

Alicanto BIDMC

http://www.alicantocloud.com

Alicanto for Global Prostate Cancer

http://www.MADCaPNetwork.org at Dana-Farber Cancer Institute

Alicanto MIT JWEL Global Education Network

http://JWEL.mit.edu at Massachusetts Institute of Technology
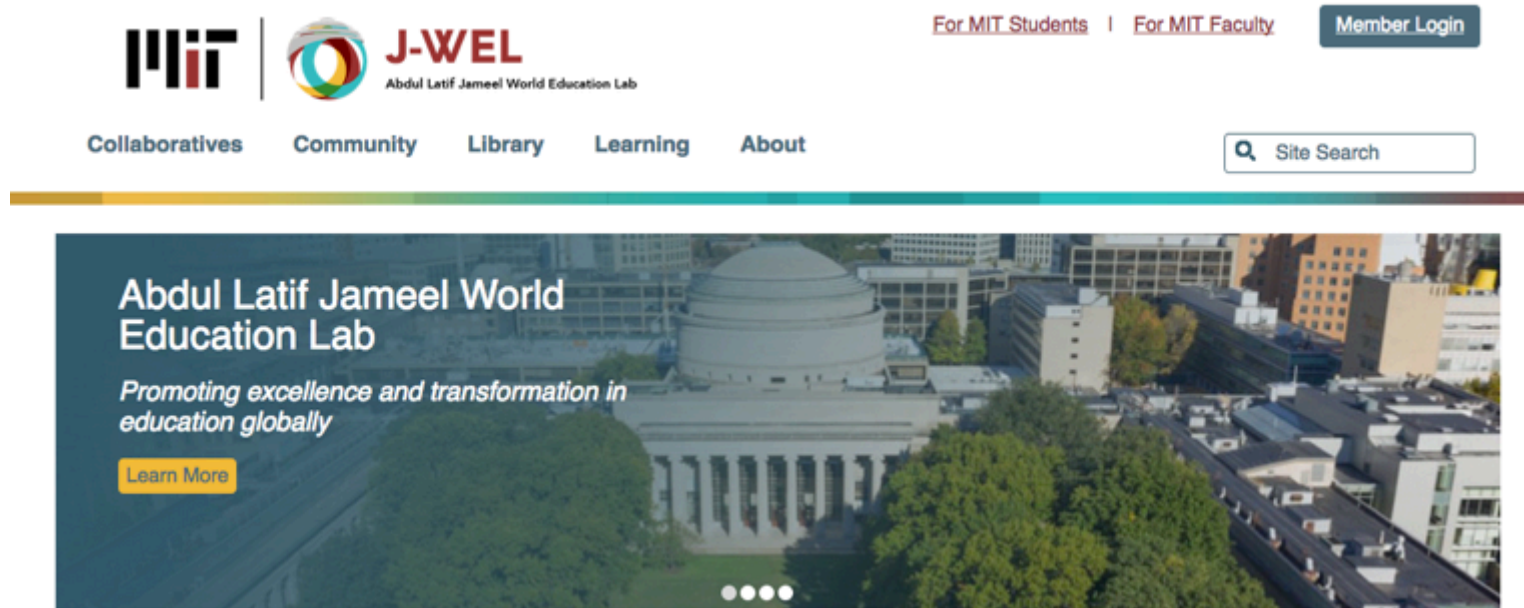
Other Learning Health Networks

https://raft.unige.ch/

https://www.who.int/hrh/network/en/

James M Anderson Center for Health Systems Excellence

https://www.cincinnatichildrens.org/research/divisions/j/anderson-center
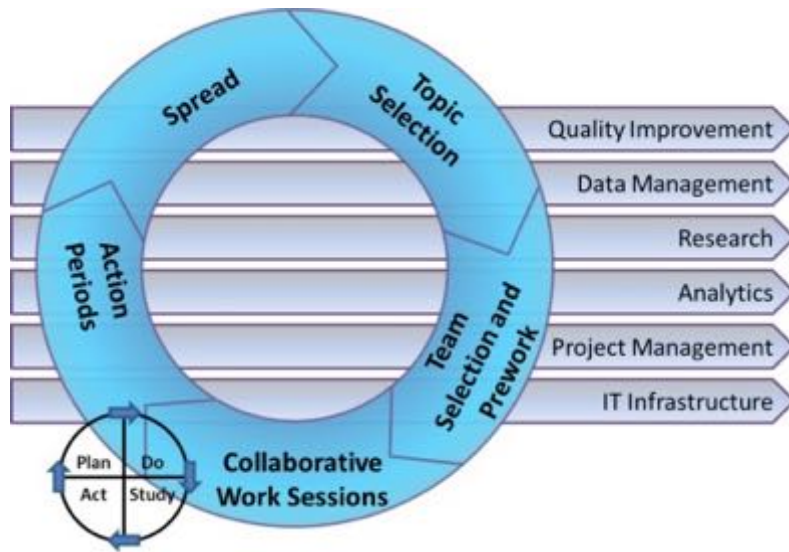

https://www.improvecarenow.org/purpose-success

https://www.hivenetworks.com

Evolution of a Community of Practice

Connect

People Connecting with Common Needs

Access to Continuing Education

Access Best Practice Guidelines

Collaborate

Peer to Peer Support

Develop New Best Practices and Guidelines

Disseminate new knowledge

Trust

Mentoring Networks (Senior – Junior member)

2nd Opinion Networks (advice giving in real time)

Data Sharing for Quality Improvement

Source: Richardson, S., Banks, M.S., Kettinger, W., and **Quintana, Y.** (In Press) IT and Agility in the Social Enterprise: A Case Study of St. Jude Children's Research Hospital's 'Cure4Kids' IT-Platform for International Outreach. Journal of the Association of Information Systems. 2014: 15(1).

Facilitators

Supportive Community

Open to Innovation

Transparent and Inclusive Leadership

Critical Mass of People

Focus on Sharing not Credit

Common Needs

Renewal of Leadership

Clear Goals

Common Tools and Language

Evolving and Relevant Goals

Supportive and Responsive Community

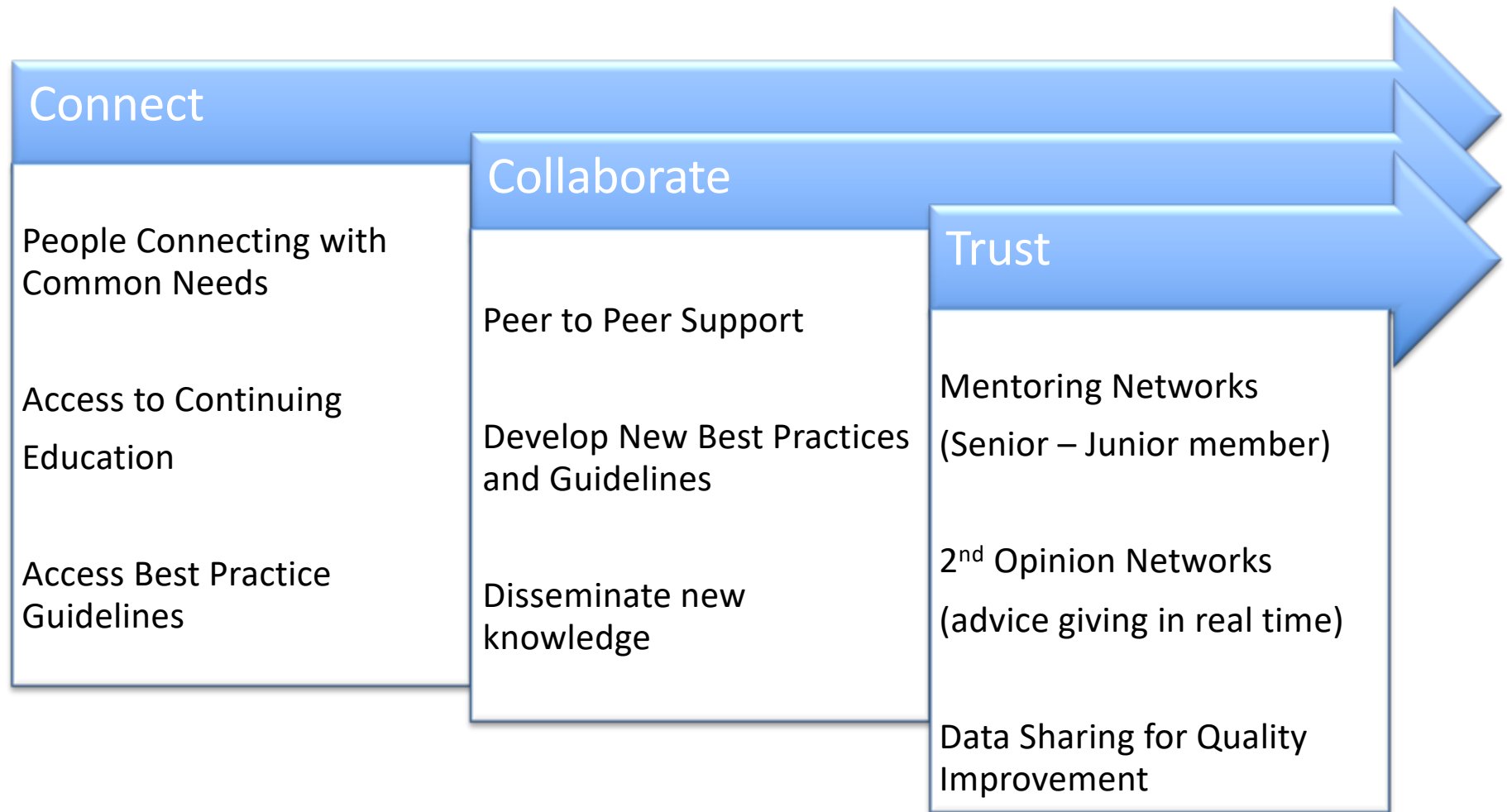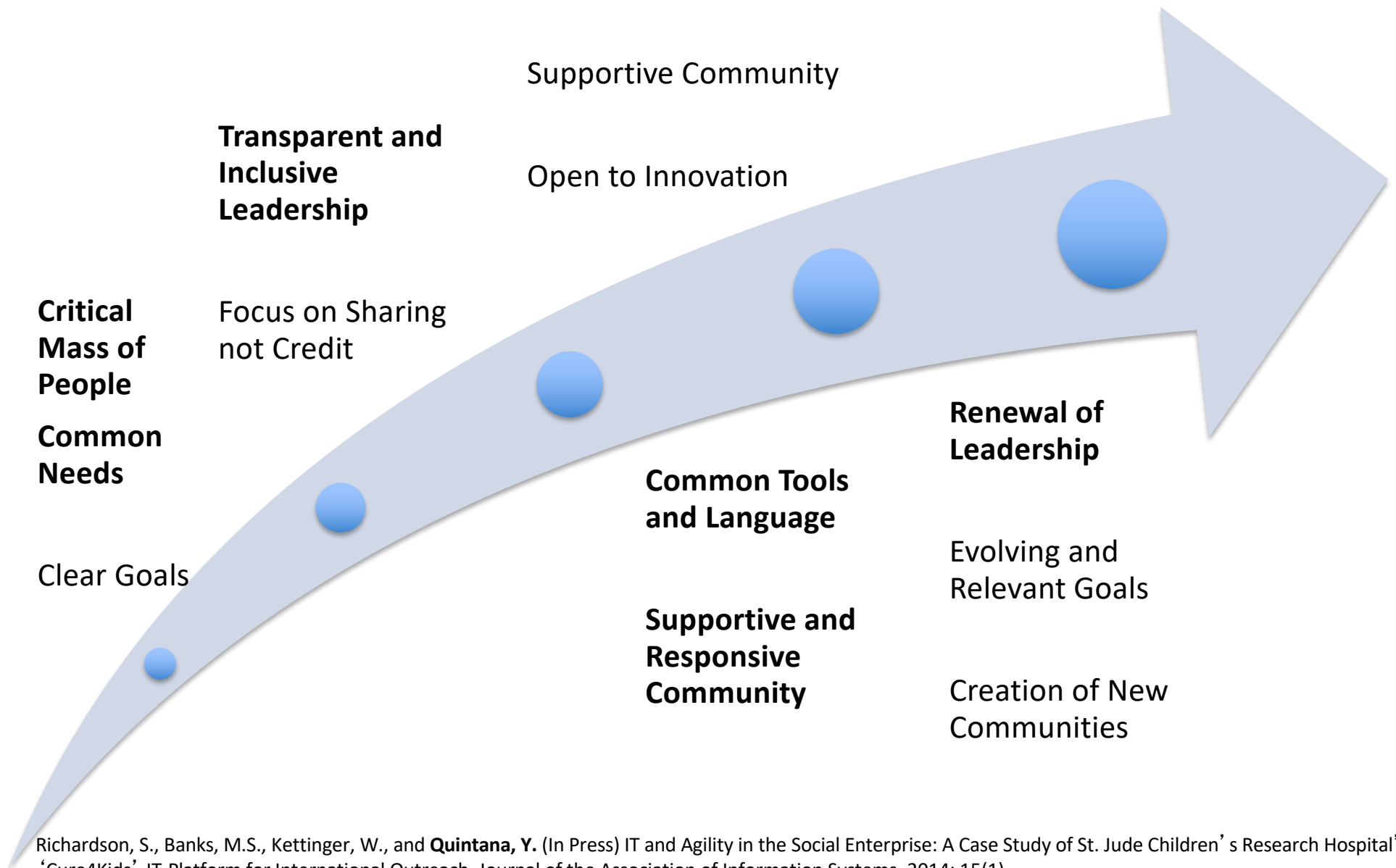Creation of New Communities

Richardson, S., Banks, M.S., Kettinger, W., and **Quintana, Y.** (In Press) IT and Agility in the Social Enterprise: A Case Study of St. Jude Children's Research Hospital's 'Cure4Kids' IT-Platform for International Outreach. Journal of the Association of Information Systems. 2014: 15(1).

Barriers

Misaligned Goals and Needs

Inflexible and Non-Transparent Leadership
Dominating Personalities Focused on Credit

Hidden Agendas
Lack of Access to Knowledge
Institutional Rigidity

Infrequent Meetings
Non-Responsive Community

Non-Returning Membership
Irrelevant Mission and Goals

Richardson, S., Banks, M.S., Kettinger, W., and **Quintana, Y.** (In Press) IT and Agility in the Social Enterprise: A Case Study of St. Jude Children's Research Hospital's 'Cure4Kids' IT-Platform for International Outreach. Journal of the Association of Information Systems. 2014: 15(1).
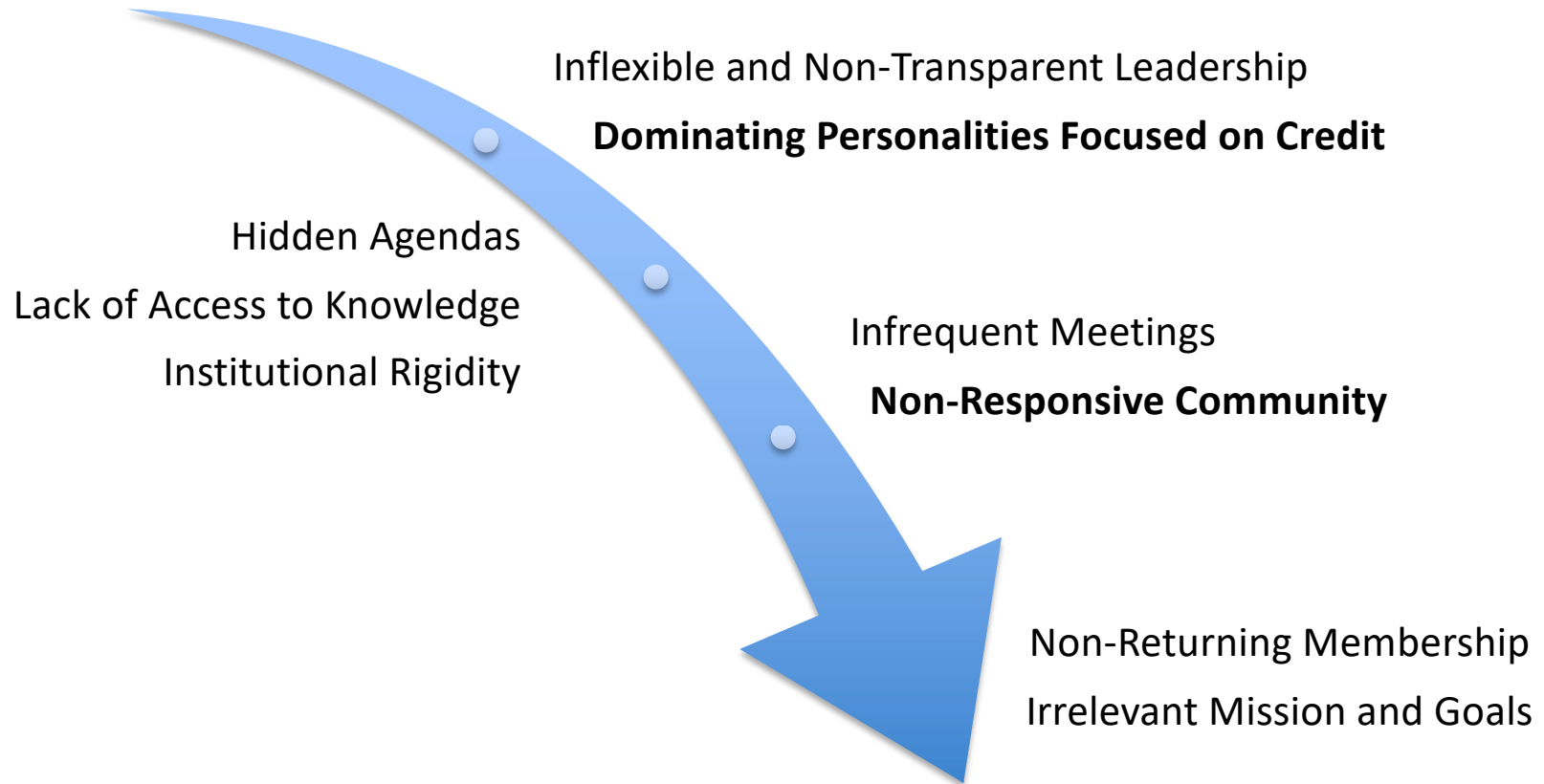
Next Generation Learning Systems

- **Systems Level Approach –** Involve key stakeholders in the network

- **Patient-Centric –** Co-create learning systems with patients

- **Collaboration** - Facilitates communication among providers and patients

- **Personalization** - education and communication using analytics

- **Accessibility** - Seamless interface to multiple systems, secure

- **Interoperability** - agreement on data standards and terminology

- **Linking Outcomes** – Clinical, Education, Communication, Quality of Life

"If you want to go quickly, go alone.
If you want to go far, go together."
African Proverb

Selected Yuri Quintana Publications

ALICANTO http://www.alicantocloud.com

Development, Evaluation, and Implementation of a Pan-African Cancer Research Network: Men of African Descent and Carcinoma of the Prostate. J Glob Oncol. 2018 Sep;(4):1-14. PubMed PMID: 30260755.

Henao J, Quintana Y, Safran C. Alicanto Online Latin American Maternal Informatics Community of Practice. Stud Health Technol Inform. 2019 Aug 21;264:1676-1677. doi: 10.3233/SHTI190592. PubMed PMID: 31438288.

INFOSAGE https://www.infosagehealth.org

Quintana Y, Henao J, Kaldany E, Gorenbeg M, Chen YP, Adra M, Lipsitz L, Safran C. InfoSAGE: Usage Pattern of a Family-Centric Care Coordination Online Platform. Stud Health Technol Inform. 2019 Aug 21;264:1972-1973. doi:10.3233/SHTI190740. PubMed PMID: 31438434.

Quintana, Y, Fahy, D, Crotty, B, Jain, R, Kaldany, E, Gorenberg, M, Lipsitz, L, Engorn, D, Rodriguez, J, Orfanos, A, Bajracharya, A, Henao, J, Adra, M, Skerry, D, Slack, WV. InfoSAGE: Supporting Elders and Families through Online Family Networks. American Medical Informatics Association Annual Symposium 2018 Dec 5;2018:932-941. eCollection 2018. PubMed PMID: 30815136.

GLOBAL HEALTH INFORMATICS

Quintana Y, Safran C. eCare at a Distance: Opportunities and Challenges. Research on the use of Information and Communication Technologies in Brazilian health facilities - Health ICT 2014. Pgs 167-177. August 20, 2015. http://bit.ly/1Iryi1J

Quintana Y, Safran C. Global Health Informatics—An Overview. In Heimar de Fátima Marin, Eduardo Massad, Marco Antonio Gutierrez, Roberto J. Rodrigues and Daniel Sigulem, editors: Marin-Global Health Informatics, Oxford: Academic Press, 2016, pp. 1 - 13. Chapter 1. https://www.elsevier.com/books/global-health-informatics/marin/978-0-12-804591-6

Quintana, Y. Challenges to Implementation of Global Translational Collaboration Platforms. MOJ Proteom Bioinform. 2015;2(6):65. PubMed PMID: 26798845

Quintana Y, Patel AN, Arreola M, Antillon FG, Ribeiro RC, Howard SC. POND4Kids: A Global Web-based Database for Pediatric Hematology and Oncology Outcome Evaluation and Collaboration. Stud Health Technol Inform. 2013;183:251-6. PMID: 23388293

Projects: http://www.yuriquintana.com   Papers at https://www.researchgate.net/profile/Yuri_Quintana

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