Data modernization: Implementation challenges

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Overview

- Challenge of defining data modernization
- Applying core concept of implementation to data modernization
- Implementation at multiple levels
- Summary

# Different faces to data modernization: All things to all people?

- Migration to "the cloud"
- Data linkages, flows and interoperability
- Ensuring data availability
  - Pandemics
  - Public health emergencies
- Updating
  - Software
  - Hardware
  - Interfaces

What does implementation mean?

- Process of planned human behavior change under organizational constraints
  - Whose behavior needs to change?
  - How?
  - When?

# Positioning behavior change for data modernization

- Health care is multi-level in nature

- Where a behavior change is positioned is very important

- Multiple levels of implementation determinants
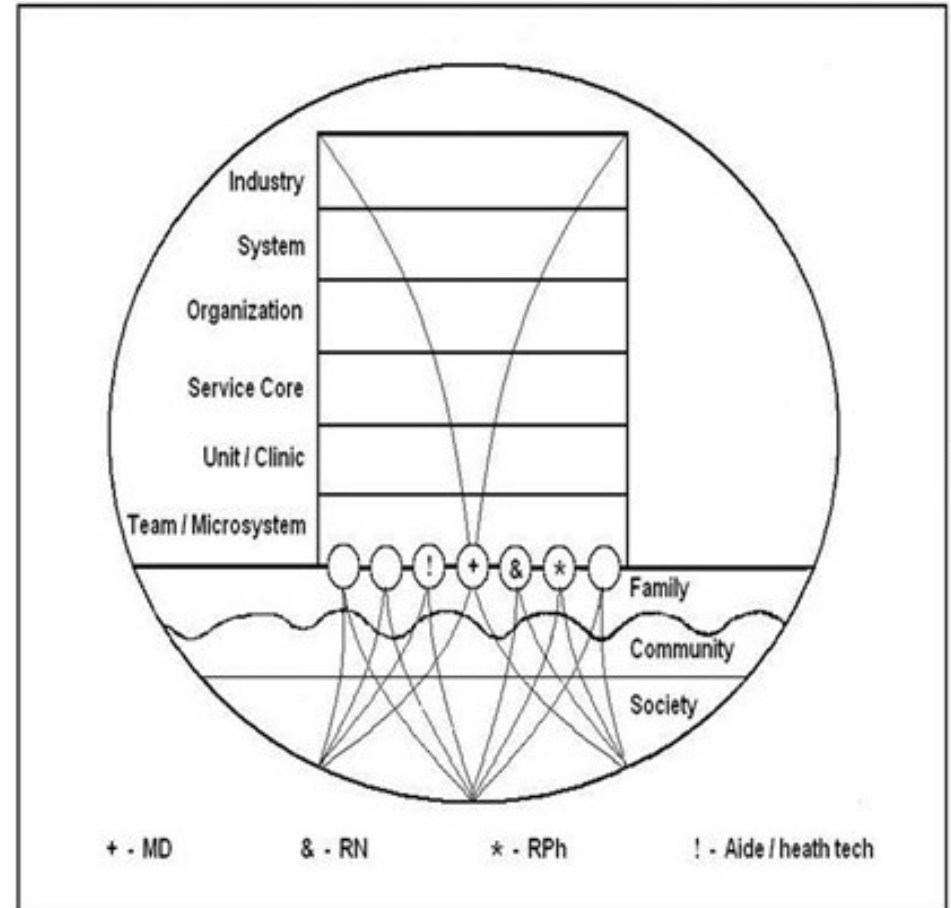
Two different organizational positions

- Whole organization
  - Decisions largely made at top levels
  - Responsive to external pressures
  - Factors outside the organization are often dominant
  - Often high resource requirements
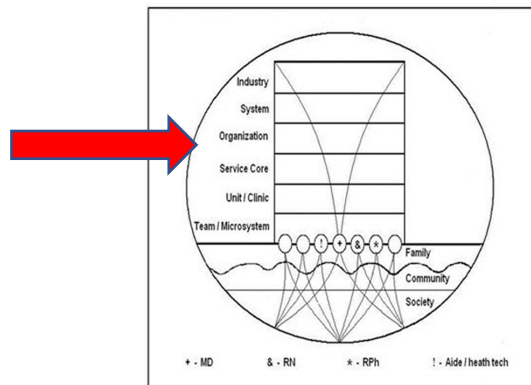
- Individual
  - Decisions may come from multiple levels
  - Seldom involve large resource requirements
  - Responsive to internal pressures
  - Service demands
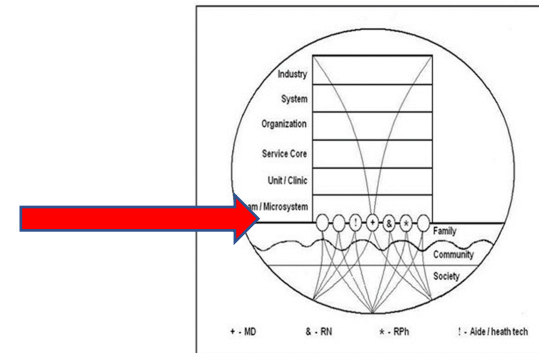
Implementation determinants differ

- Organizational level
  - Incentives and resources
  - Capacity for organizational change
  - Social, political and legal factors
- Individual level
  - Guideline factors
  - Individual health professional factors
  - Patient factors
  - Professional interactions
  - Incentives and resources

Guideline factors
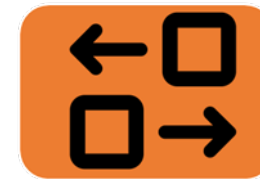
Individual health professional factors
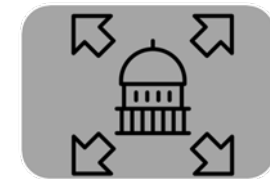
Patient factors

Professional interactions

Incentives and resources

Capacity for organizational change

Social, political and legal factors

Tailored Implementation for Chronic Diseases checklist
Flottorp et al. Implementation Science 2013, 8:35
http://www.implementationscience.com/content/8/1

Summary

- Very difficult to begin implementation until the nature of the change required is clear
  - Whose behavior needs to change, how, and when?
- Clear definition of the thing to be implemented
  - What is it?
  - What level of evidence supports the change required?
- Assessing likely barriers and facilitators depends on the nature and position of the behavior change
  - May be multiple types of behavior change at different levels of the organization
  - Ultimately, almost all change boils down to what individuals are expected to do differently
    - How much they are supported to change their behavior is important