Evaluating CAHPS®
Quality Improvement Demonstrations

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RAND Team for CAHPS Quality Improvement

- Donna O. Farley, RAND co-PI and QI lead, RAND Pittsburgh

- Denise Quigley, RAND Santa Monica

- Stephanie Teleki, RAND Santa Monica

- Jake Dembosky, RAND Pittsburgh

- Rebecca Shaw, RAND Santa Monica

- Ron Hays, RAND PI, RAND and UCLA

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Overview of the Presentation

- Goals for evaluating CAHPS QI demonstrations

- Conceptual framework to guide evaluation

- Process evaluation approach and methods

- Outcome evaluation issues and options

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Goals for Evaluating CAHPS QI Demonstrations

- Generate information on implementation experiences
  - Use by implementing organization to improve
  - Use by other organizations in their QI work

- Assess effects of QI interventions
  - CAHPS scores
  - Other outcomes and stakeholders

- Understand which factors influence effects (or not)

- Compare results across demonstrations

Major Evaluation Components

- Process Evaluation
  - Document and analyze QI intervention and implementation process
  - Identify factors influencing progress in achieving desired process changes

- Outcome Evaluation
  - Analyze effects of QI interventions on outcomes of interest to implementing organization

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How the Evaluation Goals Are Addressed

| Evaluation Goal	Evaluation Component
Goal 1 – experiences	Process evaluation
Goal 2 – effects	Outcome evaluation
Goal 3 – factors for effects	Process & Outcome
Goal 4 – comparison	Standard Methodology
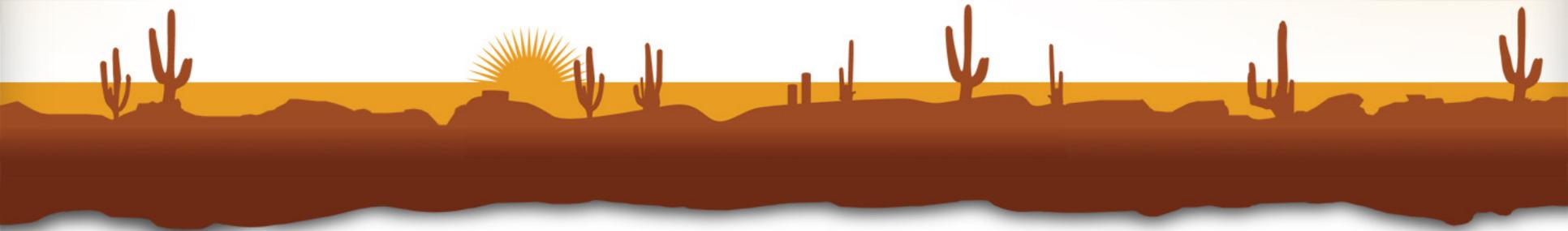
Conceptual Framework –

An Evaluation Guide

Framework: CAHPS Quality Improvement

External Environment

Organization Philosophy and Capacity

Executive Leadership

Other Units

Implementation of QI Interventions

Team leads, members
Involved Staff

Patients Served

Other Units
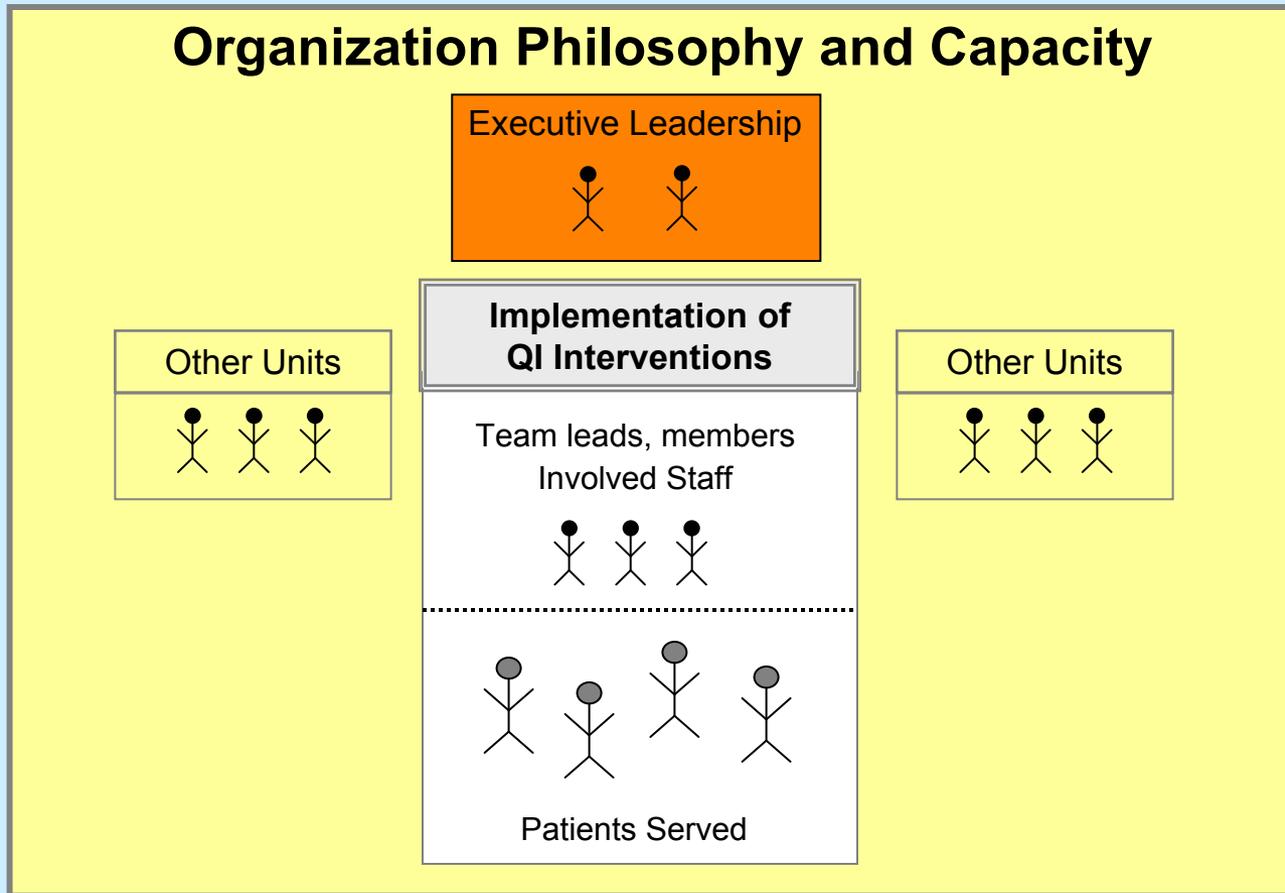
Framework: Implementation

- Core activities
  - Training
  - Change methods used
  - Process changes & cycles
  - Monitoring and feedback
  - Sustainability

- Implementation synergies
- Implementation experiences
- Changes to clinical and operational processes (expected and actual)

Framework: Key Stakeholders

- Implementation team – champion, facilitator, team members

- Higher level (e.g., organization leaders)

- Horizontal (e.g. other departments, services that coordinate with intervention)

- Directly affected or involved
  - Implementers – physicians, nurses, other clinical staff, administrative staff
  - End-users – patients, family members

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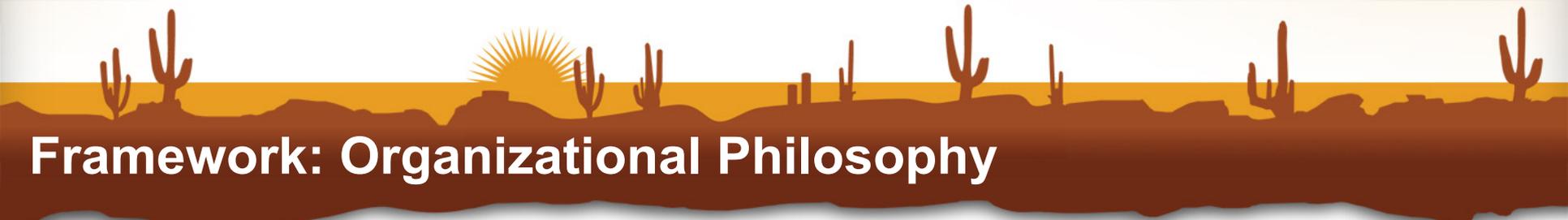
Framework: Organizational Philosophy

- Policy
  - Formal policies
  - Human resource practices

- Roles/Positions
  - Decision-making authority
  - Reporting responsibilities
  - Role expectations

- Philosophy/culture
  - Culture of excellence
  - Patient-centered focus
  - Management approach and style

Framework: Organizational Capacity

- System-level
  - Facilities
  - Support service
  - Coordination

- Position-level
  - Supervisory
  - Workload

- Individual-level
 - Personal
  - Performance

Framework: External Environment

- Policy
  - Laws and regulations
  - Credentialing policy
  - Reporting policies
  - Performance
  - Payment incentives

- Market
  - Competition
  - Perceived quality, costs, access

- Information
  - CAHPS credibility
  - Public reports
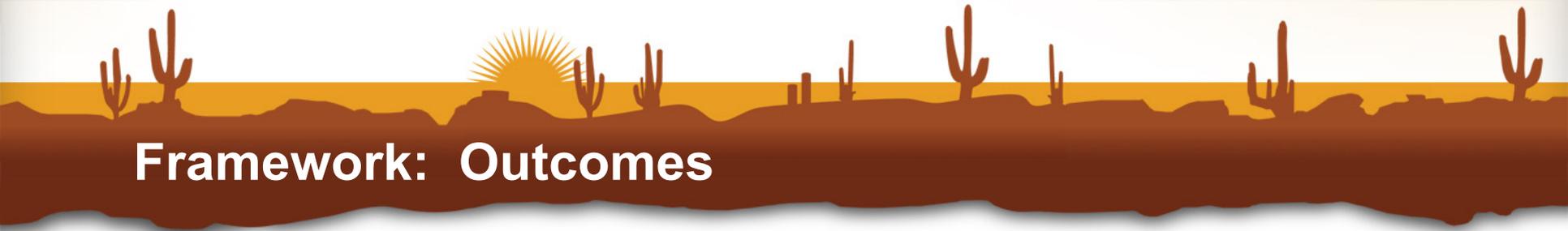
- Patient experience (CAHPS)

- Organizational change

- Program change

- Employee effects
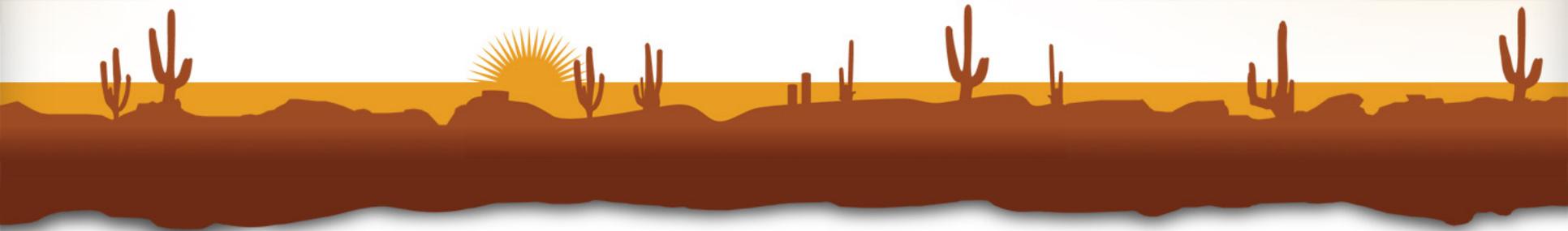
Process Evaluation Methods

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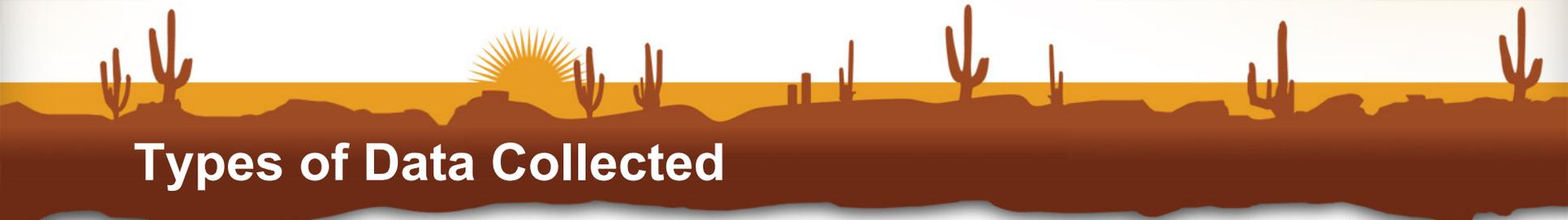
Types of Data Collected

- Descriptive (factual) data
  - Organizational environment
  - External environment
  - Decision process leading to the QI interventions
  - Strategy to implement the interventions
  - Timeline of implementation

- Experiential data
  - Differing views of stakeholders
  - Perceptions of progress of the QI interventions
  - How QI interventions affecting them

Interview Grid for Data on Stakeholders Perspectives

Framework Component	Expect-ation	Actual Progress		Effects on You	Effects on Others
		Successes	Challenges		
Intervention					
Stakeholders					
Organization Philosophy					
Organization Capacity					
External Environment					
Effects on Outcomes					

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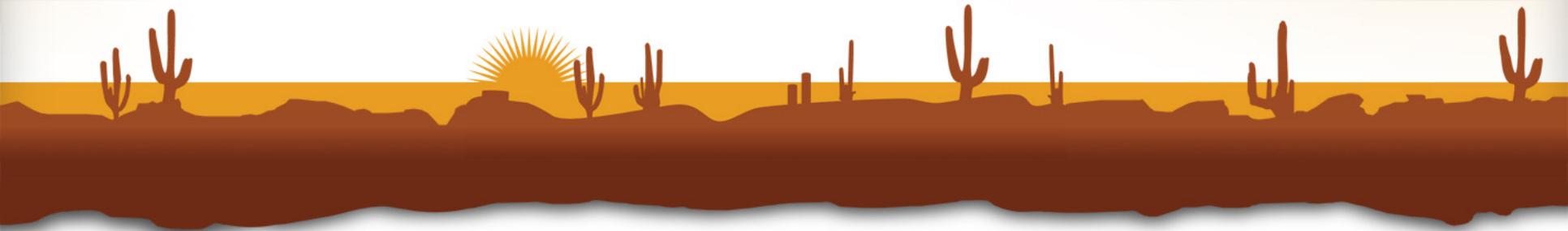
Outcome Evaluation

Issues and Design Options

Challenges in Measuring Effects of QI Interventions

- Difficulty in "moving" CAHPS scores
  - Scores are composites of several items
  - QI interventions often address only some items
  - Time required to make practices change
  - Time required to change patients' perceptions

- Difficulty in attributing effects to QI intervention
  - Many initiatives are in just one organization
  - Others are in many (e.g. medical practices)
  - External control groups may not be good controls
 - Need for process information to interpret effects

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- Differences-of-Differences
  - Use control groups to control confounding factors
  - Allows attribution to intervention
  - Controls may not control for confounders

- Differences by degree of implementation
  - Classify participating groups (e.g. practices) by degree of implementation and compare
  - May not measure implementation accurately

- Compare each entity to itself over time
  - Control for confounders but not temporal changes
  - Small N for analysis and power needs

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An Example of Changes in CAHPS Scores

HealthPlus of Michigan
Clinician/Group CAHPS 2005 - 2007

HealthPlus
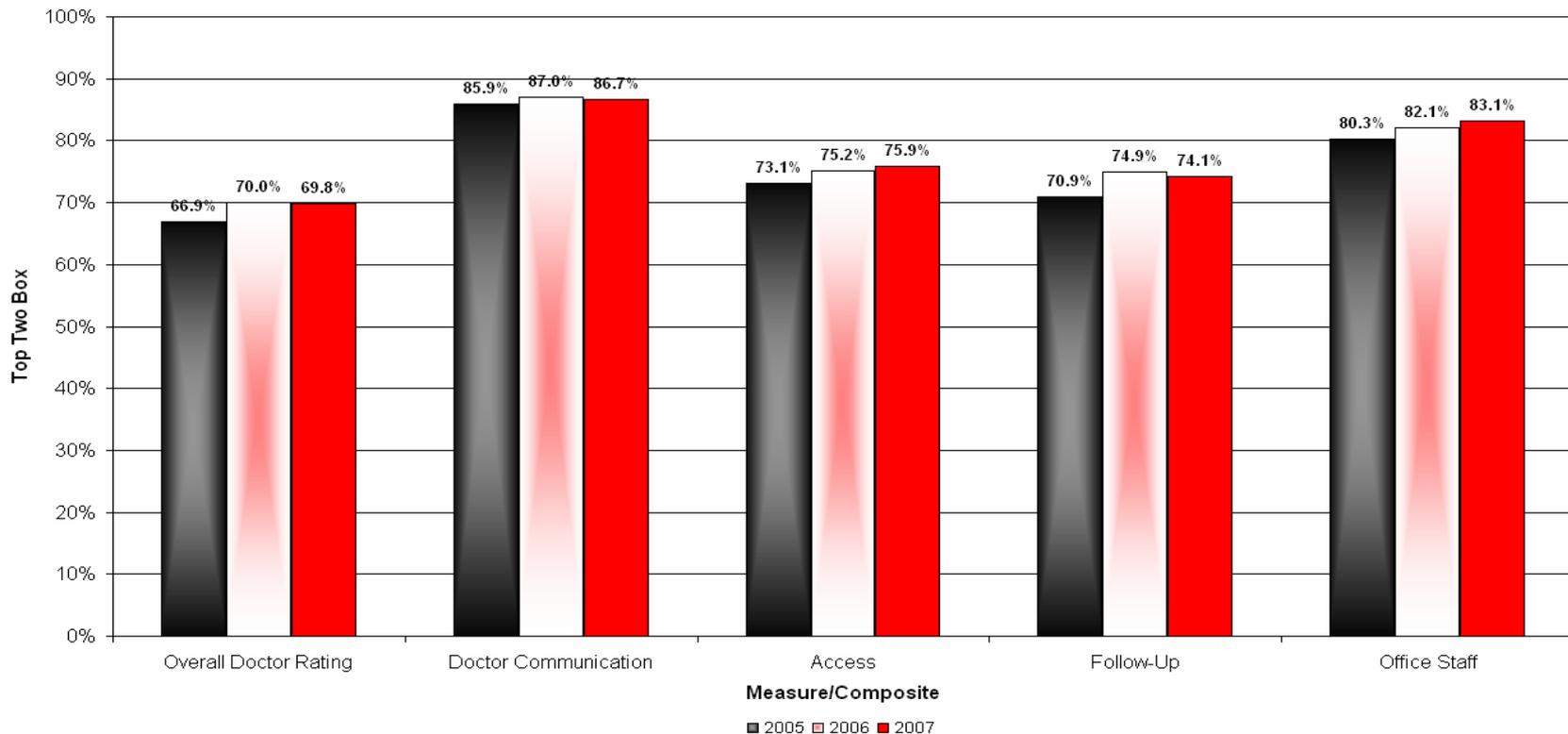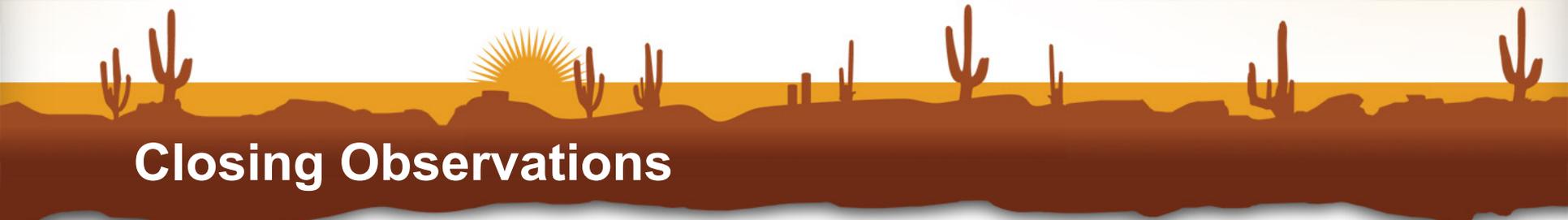
Closing Observations

- Need for multi-dimensional information leads to complex evaluation requirements

- Ultimate goal is to learn how QI interventions affected patient experience, as measured by CAHPS scores

- But implementers also need feedback to improve intervention actions

- Process evaluation must collect good comparative data to serve all these needs

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