

Project-Level Early Warning Interest Group Meeting Agenda: 3 March 2016

Welcome and introductions (~ 5 mins)

Presentation: *Sentinel Indicators: A Systems-Based Approach to Monitoring and Evaluation* – Travis Mayo, USAID (~ 35 mins)

Q&A (~ 20 minutes)



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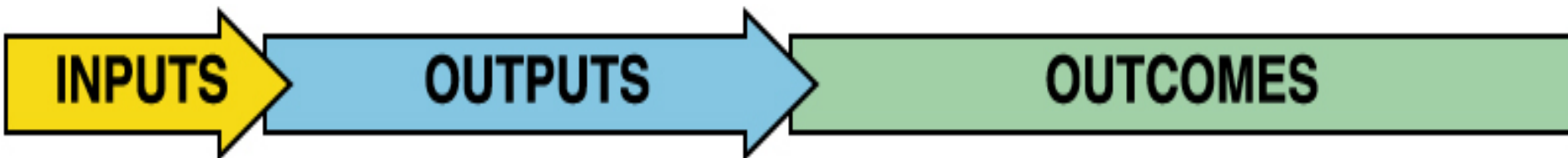
AEA 2015

Sentinel Indicators:

A Systems-Based Approach to Monitoring and Evaluation

Travis Mayo

**United States Agency for International Development
(USAID)**



What we invest	Activities	Participants	Short Term	Medium Term	Long Term
Staff Money Time Volunteers Partners Equipment Materials...	<i>What we do</i> Technical Assistance Fieldwork Research Studies Workshops Conferences Courses Media Work Facilitation Trainings...	<i>Whom we reach</i> Students Scientists Tribes Citizens Private Sector Agencies Planners...	<i>What the short term results are</i> Awareness Knowledge Skills Behavior Practices Motivations...	<i>What the long term results are</i> Decisions Policies Social Action Industry Action Restoration Recovery Preservation...	<i>What the ultimate impact(s) are</i> Social Economic Civic Environmental Value Added...







A sentinel indicator:

- **Is a type of proxy indicator used not to measure a result, but rather as a bellwether for indicating that greater changes are occurring within a complex system**
- **Is easily communicated**
- **Signals the need for further analysis and investigation**
- **Has no targets set**

Sentinel indicators are placed at critical points in a system map to help monitor and inform the mutually influencing relationship between the program and its context

Pakistan



Uganda





Haiti



Ag Inputs - Uganda

Who have you purchased products from? And who have you resold products to?

OTI Stability Programs - Pakistan

Market Activity - composite indicator including: market size; market reinvestment; market crowds; and market locations

Food for Peace – Haiti

1. Amount of rainfall (in millimeters) reported monthly from available rain gauge stations
2. Consumer price levels (in Haitian Gourdes [HTG]) for identified key commodities for standardized commodities, reported monthly from regularly surveyed markets
3. Global acute malnutrition (GAM) prevalence (using mid-upper arm circumference [MUAC]) reported monthly from awardees' community screenings of children 6–59 months of age or underweight prevalence (using weight-for-age measurements) reported monthly from awardee rally posts

Each indicator was paired with a sub-indicator that was used to better understand when changes with the sentinel indicator had reached a point that warranted investigation. The sub-indicators are as follows:

1. One month with more or less than the required rainfall for the dominant crop(s) during the production season, compared with available historical data
2. One or more months of atypical price variance (in HTG) during a specific season compared with month-on-month trends and available historical data
3. Increase in Global Acute Malnutrition prevalence and/or underweight prevalence among children 6–59 months of age, compared with month-on-month trends and area-specific program baselines



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The Birth of a Sentinel Indicator





Sentinel Indicators and Adaptive Management

Knowledge of Causation

Fast feedback; rapid response
with approaches we know will
work (e.g., humanitarian
assistance, cash transfers)

Traditional 'linear' programming
(e.g., vaccines, infrastructure,
bed nets)

Knowledge of Context

? Try to get out this quadrant!

Experiment, iterate, learn, adapt
(e.g., PDIA)

Sentinel Indicators and Adaptive Management

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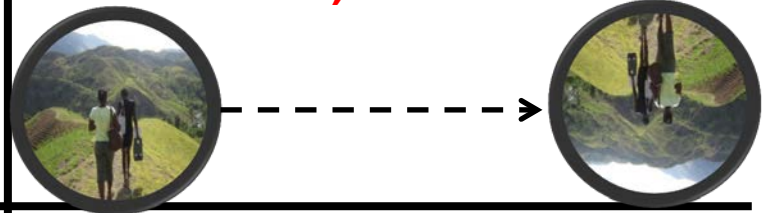
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Sentinel Indicators and Adaptive Management

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The Use of a Sentinel Indicator



**Pre-determined
processes for analysis
and integration into
decision making**





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Designing a Sentinel Indicator







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Designing a Sentinel Indicator



- **Staff must be comfortable with systems thinking principles**
- **Must accept that sentinel indicators may be iterative; you will learn as you go**
- **Must be created in-house**
- **Collaboration between donor and implementing partner ideal**
- **Methods experts not required**
- **Exhaustive system mapping not required**

- 
- A wooden easel with a light-colored wood finish is shown from a three-quarter perspective. It holds a large, white rectangular board. The board is tilted slightly to the right. On the board, there is a bulleted list of three items in bold black text. The easel has a base with four legs and a horizontal bar across the middle. A small wooden piece is attached to the top of the board.
- Intense analysis required
 - Staff who are comfortable with complexity and ambiguity
 - Means for data collection

- 
- A wooden easel with a light-colored finish holds a white rectangular sign. The sign is tilted slightly to the right. It features two bulleted lists of text in a bold, black, sans-serif font. The top list contains three items, and the bottom list contains two items. The easel's legs are visible at the bottom, and a small wooden piece is attached to the top of the sign.
- Intense analysis required
 - Staff who are comfortable with complexity and ambiguity
 - Means for data collection

Notably not required

- Proprietary Software (or any software)
- Super-specialized expertise



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Sentinel Indicators and Deciding to Act





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Sentinel Indicators and Deciding to Act



Challenges

- Low incentive and precedence to spend limited resources on problems that don't yet exist
- Risk mitigation – credibility of donor and project lost if emergency assistance applied but no shock occurs
- Mismatch in commitment to Sentinel Indicators – easy to “lose” them within a larger M&E plan



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Sentinel Indicators and Deciding to Act

Potential Solutions

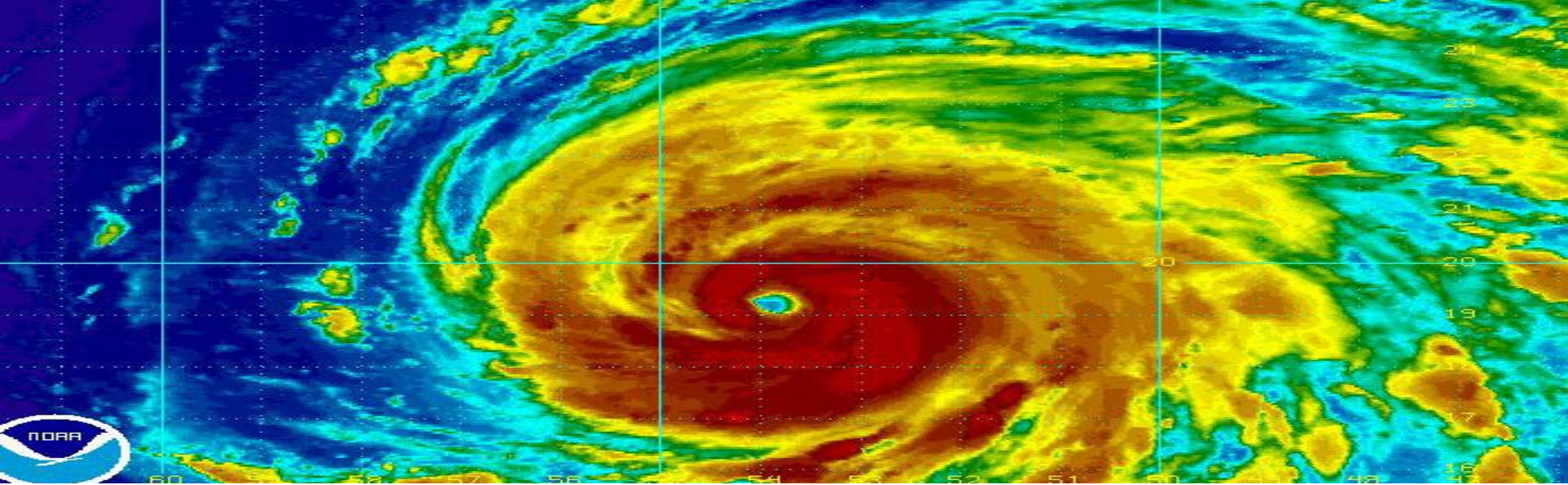


- Data simulation
- Locally determined context for when action is required
- Historical record of sentinel indicator data and onset of shocks



Bottom line:

- **Sentinel Indicators are versatile**
- **They are an accessible first step to working in complexity**
- **They are very good at detecting broad changes**
- **They spark conversations, questions, and analysis to better understand your system**



Documented results of what they can do:

- **Support adaptive management (i.e., provide the data that allows for improved decision making)**
- **Reveal previously unknown aspects of your context and system**
- **Promote appreciation and value of systems thinking within a project team**



What they require:

- **Understanding that you're working within a system**
- **Staff that are comfortable in complexity and ambiguity**
- **A culture that values learning, asking questions (in practical terms, having space for assessment and analysis)**
- **Time and staff for analysis**



- **Thinking about M&E through a systems lens opens new opportunities**
- **Growing recognition that programs need the services of those who can help them think systemically**
- **Tackling the hardest M&E challenges may require you to find your inner systems thinker**



Thank you

Travis Mayo

USAID

Bureau for Policy Planning and Learning
Office of Learning Evaluation and Research

TMayo@usaid.gov



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Is it a Sentinel Indicator? (checklist)

- Is the indicator measuring an intended result of the program?
- Does the indicator have a target assigned to it?
- Is the indicator being used as a trigger for further analysis or investigation?
- Is the indicator being used to gain insight on processes of change or a complex interrelationship?