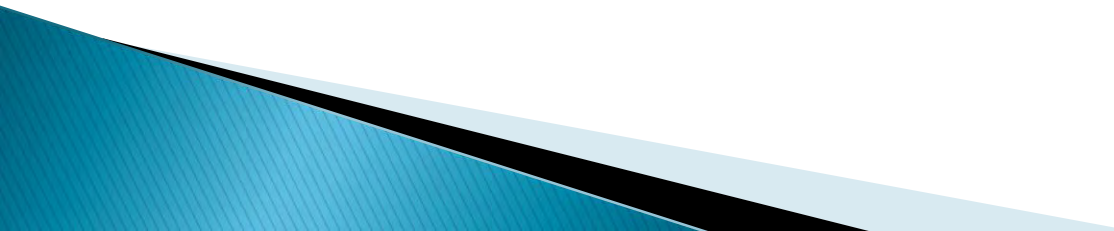


Application of Balanced Scorecard Initiative Findings

Gary C. Matlock
Office of Oceanic and Atmospheric Research
National Oceanic and Atmospheric Administration

Thomson Reuters Conference -- Understanding Federal R&D Impact
Washington, DC
March 19, 2013

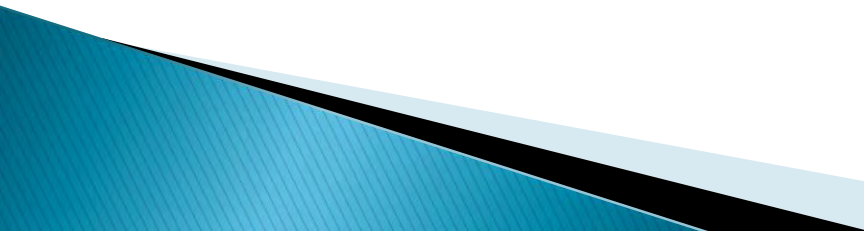
Balanced Score Card (BSC)

- ▶ Defines what to measure;
 - ▶ Management system (not just measurement);
 - ▶ Translates vision into action;
 - ▶ Provides feedback—processes to outcomes;
 - ▶ Improves strategic performance & results:
 - Learning & Growth Perspective;
 - Business Process Perspective;
 - Customer Perspective; and
 - Financial Perspective.
- 

DOC BSC

- ▶ 2010: DOC uses BSC as management tool;
- ▶ 2011: BSC Measure implemented:
 - *Annual number of NOAA peer reviewed publications*
- ▶ 2011: Manual reporting by one Line Office
- ▶ 2012: Automated reporting using:
 - NOAA Library capabilities;
 - Web of Science;
 - NOAA Research Council; and
 - Funding.

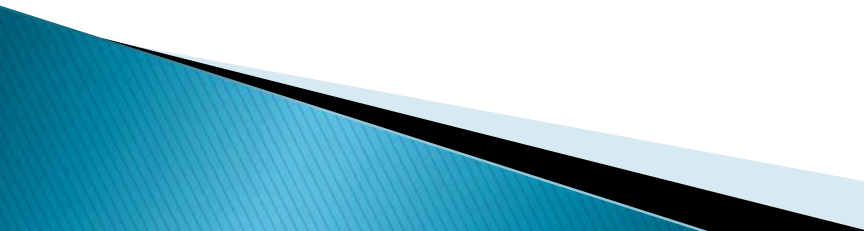
Limitations of BSC Measure

- ▶ Significance of numbers unclear;
 - ▶ Does not include ALL NOAA publications;
 - ▶ Does not include ALL NOAA funded research;
 - ▶ Is an output, not outcome measure;
 - ▶ Does not measure quality or relevance of NOAA research and development;
 - ▶ Requires baseline information; and
 - ▶ Requires funding.
- 

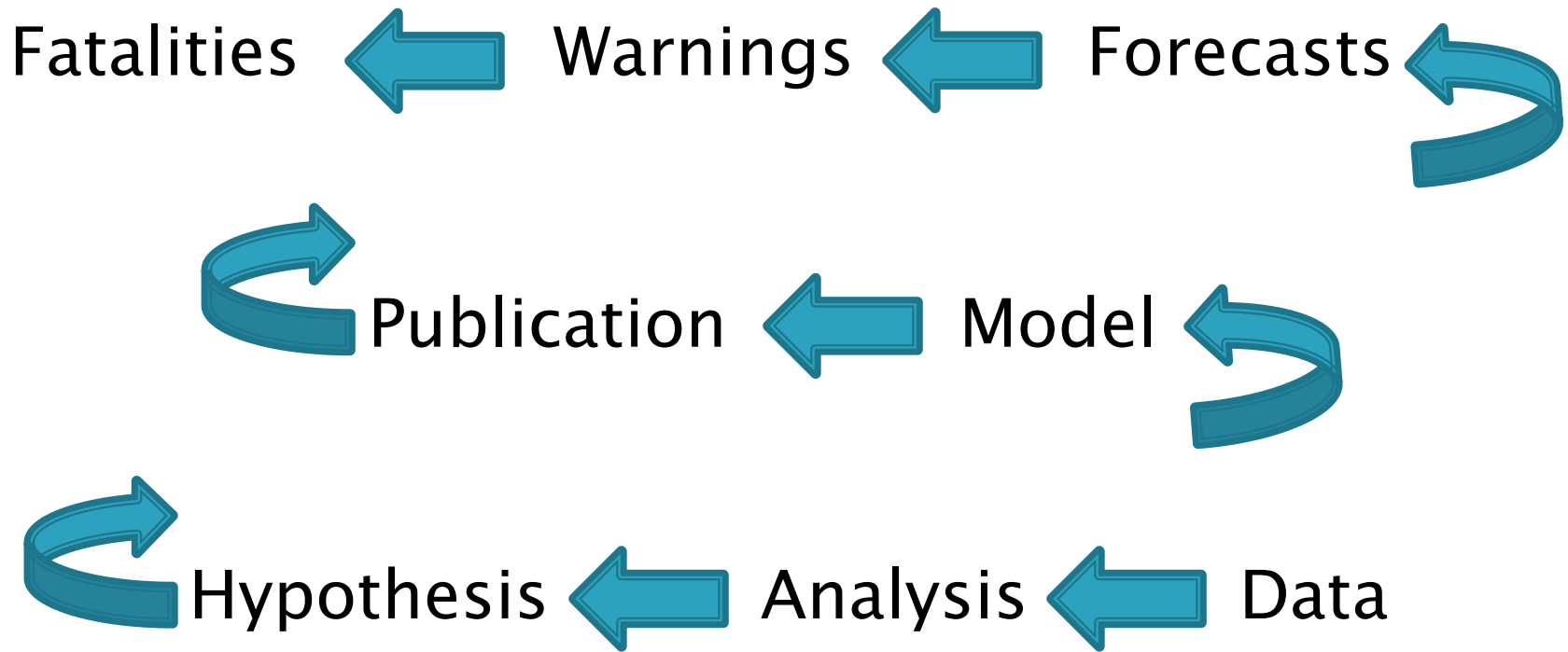
Strengthening NOAA R&D Enterprise

- ▶ NOAA Administrative Order (NAO)
 - Implemented July 2011;
 - Strengthens quality, relevance, and performance;
- ▶ Defines performance measure:
 - *Structured statement that describes means by which actual outcomes and outputs are measured against planned outcomes and outputs;*
- ▶ Evaluate R&D against performance measures

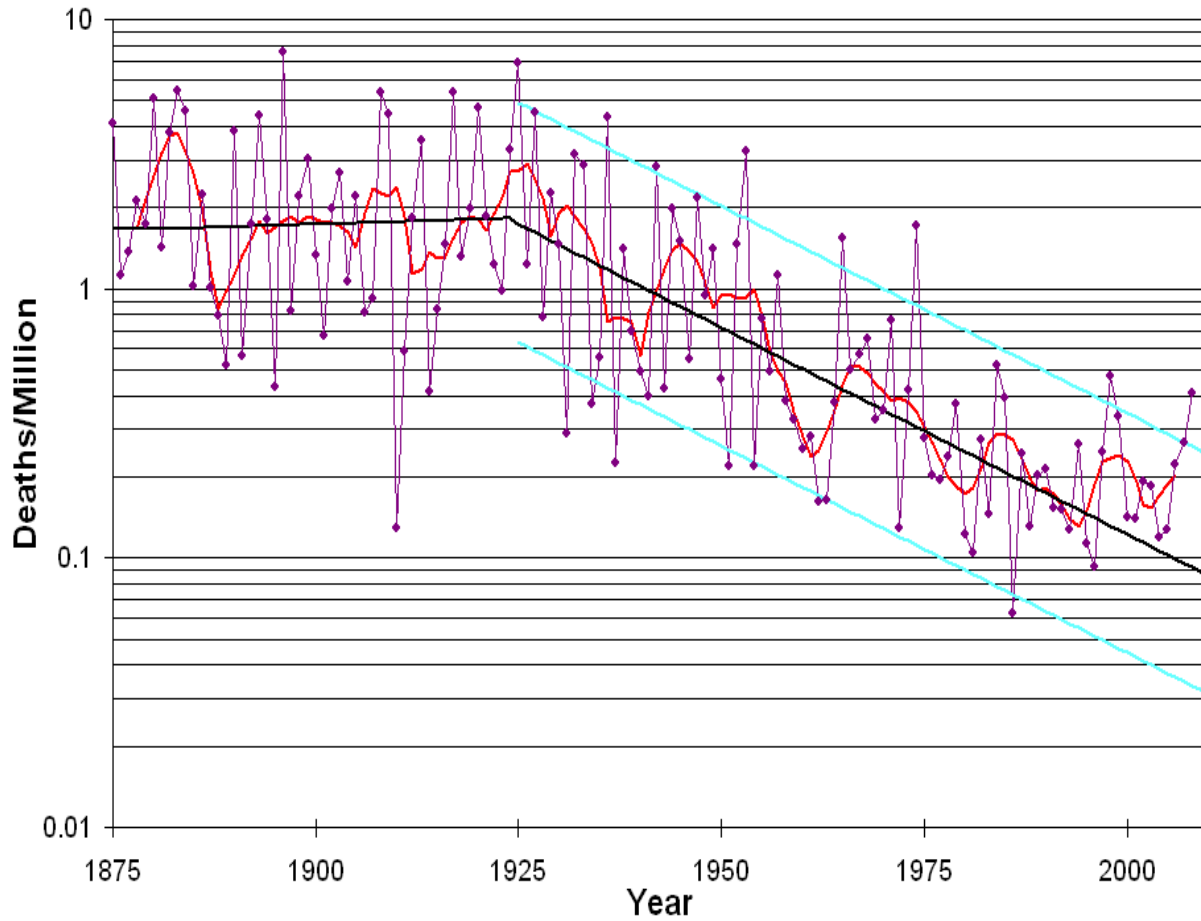
Outcome vs Output Measures

- ▶ Output: Scientific publications (e.g. models that relate atmospheric measurements to tornado formation)
 - ▶ Outcome: Converted into applications (e.g. improved tornado forecasts distributed to public)
 - ▶ Output: Accurate forecast
 - ▶ Outcome: Reduced death, injury, and property damage
- 

Tornado Logic Model



US Tornado Deaths/Million People



Future Performance Measures

- ▶ Publications
 - Performance
 - Relevance
 - Quality

 - ▶ Research to Applications
 - Performance
 - Relevance
 - Quality
- 