

# **Development of Health Outcome Based Measures**

***Overview & Status for the  
Drinking Water Committee  
of the Science Advisory Board***

***November 13, 2007  
Office of Ground Water and Drinking Water  
Valerie Blank***



# Outline of Presentation

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- **Background & Issue**
- **Objective**
- **Status**
  - **Measure Development and Implementation Plan**
  - **OMB Report on Drinking Water Performance Measures**
  - **Measures Approaches**
  - **NDWAC Subgroup**
  - **Framework Development**
  - **Measures Development**
- **Next Steps**



## Background & Issue

- **OGWDW is developing a health outcome-based program measure to demonstrate the performance of the drinking water program**
- **Current program measure based on compliance with DW standards**
  - *Subobjective 2.1.1 Percentage of population served by community water systems that receive drinking water that meets all applicable health-based drinking water standards through effective treatment and source water protection.*
- **Key Question- How can we use currently available compliance data to create a new health-based measure?**



# Waterborne Disease Measure Objective

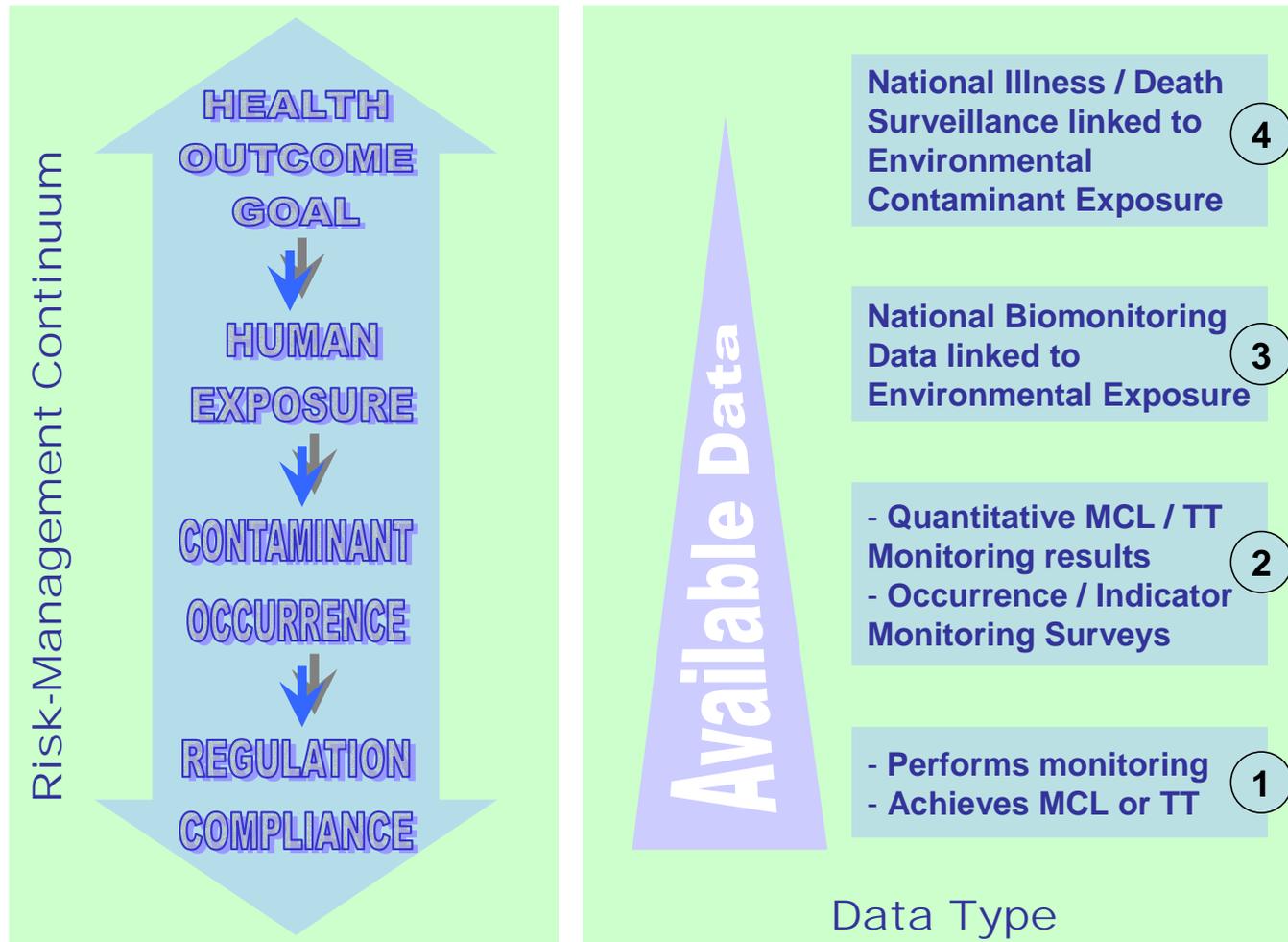
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- **Achieve a sound scientific basis for a health outcome-based program measure**
- **Shift our program measure to health outcome-based metrics on a risk-management continuum**
- **Improve the data available to support using this measure in future Agency Strategic Plans**



# Waterborne Disease Measure Objective





# Waterborne Disease MDIP

**OW submitted a Measure Development & Implementation Plan (MDIP) for Microbial Drinking Water Regulations to OMB in Sept. 2004**

- **The Agency is working toward including a measure in the 2008-2013 Strategic Plan and will provide measure specific milestones at that time**
- **EPA is working with CDC to develop a better understanding of endemic and epidemic waterborne illness. These activities include:**
  - **Collaboration with CDC to improve outbreak surveillance**
  - **EPA research on microbial risk and indicators**



# OMB Report on Drinking Water Performance Measures

- **OMB Request for update through Budget Planning**
  - Report on activities, plan and schedule to develop measure for the next strategic planning cycle
  
- **OW Submitted “OMB Report on Drinking Water Performance Measures” on 02/22/07**
  - Status of Measure Development
  - Update on Collaborative activities
  
- **EPA has developed a framework of potential approaches to developing two new measures with goal of understanding broad program impacts from health outcome perspective**
  - Microbial Measure
  - Chemical Measure



# Measures Framework

- **Framework identifies several approaches for consideration in addressing two goals**
  - Develop new measures to include in the 2008-2013 Strategic Plan
  - Develop tools for future program evaluation or measure purposes
  
- **Approaches considered in framework include:**
  - Disinfection Byproduct (DBP) based measure
  - Arsenic Based Measure
  - *Cryptosporidium* based measure
  - Acute Gastrointestinal Illness (AGI) based measure
  
- **EPA is working with NDWAC Drinking Water Measures & Indicators Subgroup**
  - Formed to provide input to Agency on developing program measures
  - EPA requested Subgroup review of concepts and approaches proposed in framework



# Measures Development (1)

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## Goal

- **By May 2008- for input into the next strategic planning cycle (2008-2013 Plan)**
  - Draft Concept & Model using approach developed with NDWAC input
  - Develop Measure language, baseline metric and out-year target metric

## Key Milestones

- **NDWAC Drinking Water Measures & Indicators Subgroup**
  - Review of Framework by November 2007
  - Report to Full NDWAC with recommendations from review by November 2007



## Measures Development (2)

### Key Milestones (cont'd)

- **EPA develops Measures Document (November – February 2008)**
  - Measures Language
  - Model, Inputs & Uncertainty
  - Measures Baseline Metrics
  - Measures Out-year Targets
  - Methodology for populating Out-Year Metrics
  
- **Peer Review & SAB Consultation on Measures Document**
  - February / March 2008
  
- **Beyond May 2008-**
  - Further data partnering & gathering efforts
    - Assess out-year target
    - Populate out-year metric



## Next Steps

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- **Draft Measures Document based on Framework & NDWAC input**
- **OW is interested in the Drinking Water Committee's input through consultation concurrent with Peer Review of the Measures Document**
  - **Concept behind proposed approaches and rational for two approaches for two proposed measures**
  - **Baseline measures and out-year targets**
  - **Methodology the Agency proposes to use to populate out-year metrics**