

New Approaches for Capturing Impacts



**NIH Portfolio Analysis
Workshop**

February 6, 2012

Christie Drew, Ph.D.

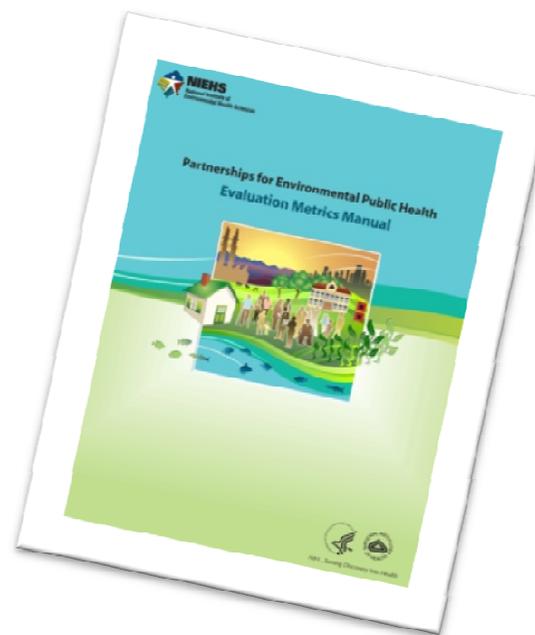
**National Institute of Environmental
Health Sciences
Program Analysis Branch (PAB)**



Goals for this talk

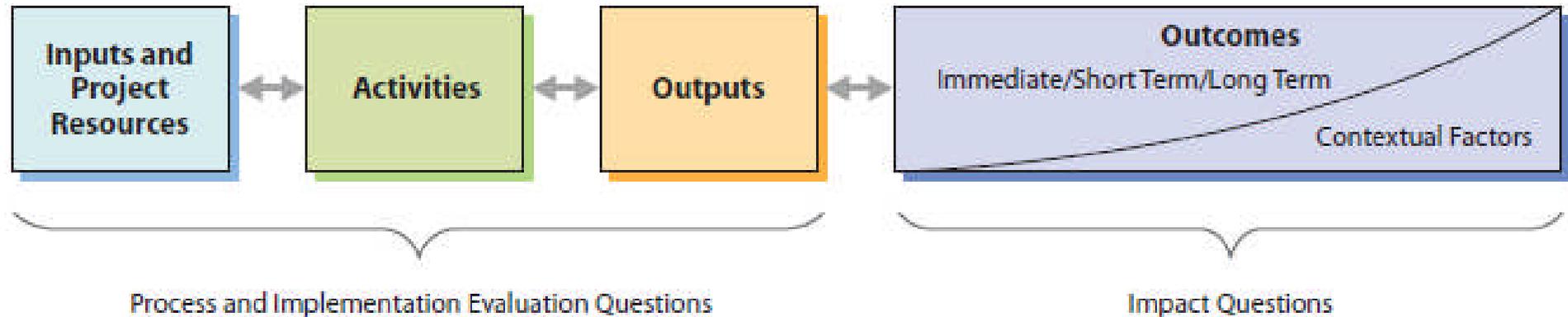
- What is an impact?
- Data challenges
- Outline three recent efforts for tracking impacts
 - HITS
 - Evaluation Metrics Manual
 - CareerTrac

High Impacts Tracking System



Measuring Impacts: NIEHS History

- SPIRES
 - Automated links: NIH Grants – Publications
 - Began at NIEHS in 2001
 - Providing data for QVR, RePORTER, NDAR, eSPA, etc.
- Logic Modeling
 - Get beyond outputs (bibliometrics), to research impacts (policy, guidelines, curricula)
 - Developed logic models
 - NIEHS extramural program; Several portfolios
 - Several published papers



Adapted from TBS, Guide for the Development of Results-based Management and Accountability Frameworks, 2001.

Logic Model – organized, project specific, informs metrics

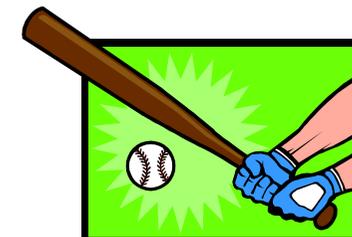
- **Inputs** – resources available
- **Activities** – actions that use available resources
- **Outputs** – direct products of activities
- **Impacts** – benefits or changes resulting from activities, outputs

Key data challenges

- IMPAC II contains information that can't be searched or readily used
 - Progress reports
 - Program officer notes
 - T32 data tables
- Lack infrastructure for documenting impacts
 - IMPAC II is a payment tracking system, not a science management system
 - No ontology for impacts
- Lack resources for measuring public health outreach activities



High Impacts Tracking System (HITS)



- Goals
 - Leverage existing IMPAC II information that is not searchable
 - Progress reports
 - Program officer signature notes (Type 5 review)
 - Identify scientific advances (content of publications)
 - Apply IC specific “codes” for various topics
 - Develop robust infrastructure for tracking impacts
 - Complement existing tools

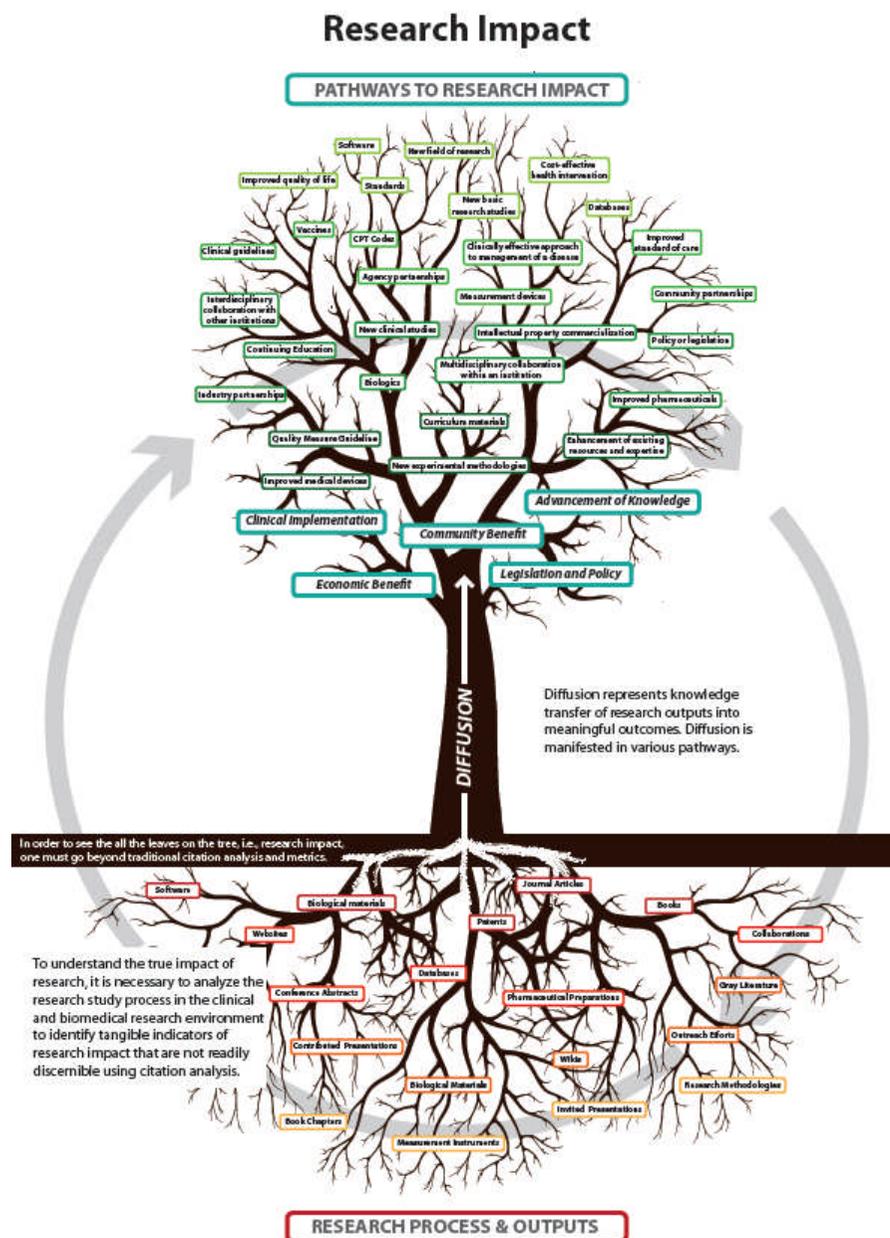


(ARRA funded)



Pathways to Research Impact

- Our work is informed by research at the Washington University in St Louis on research impact



Assessing the Impact of Research,
<http://becker.wustl.edu/impact/assessment/>

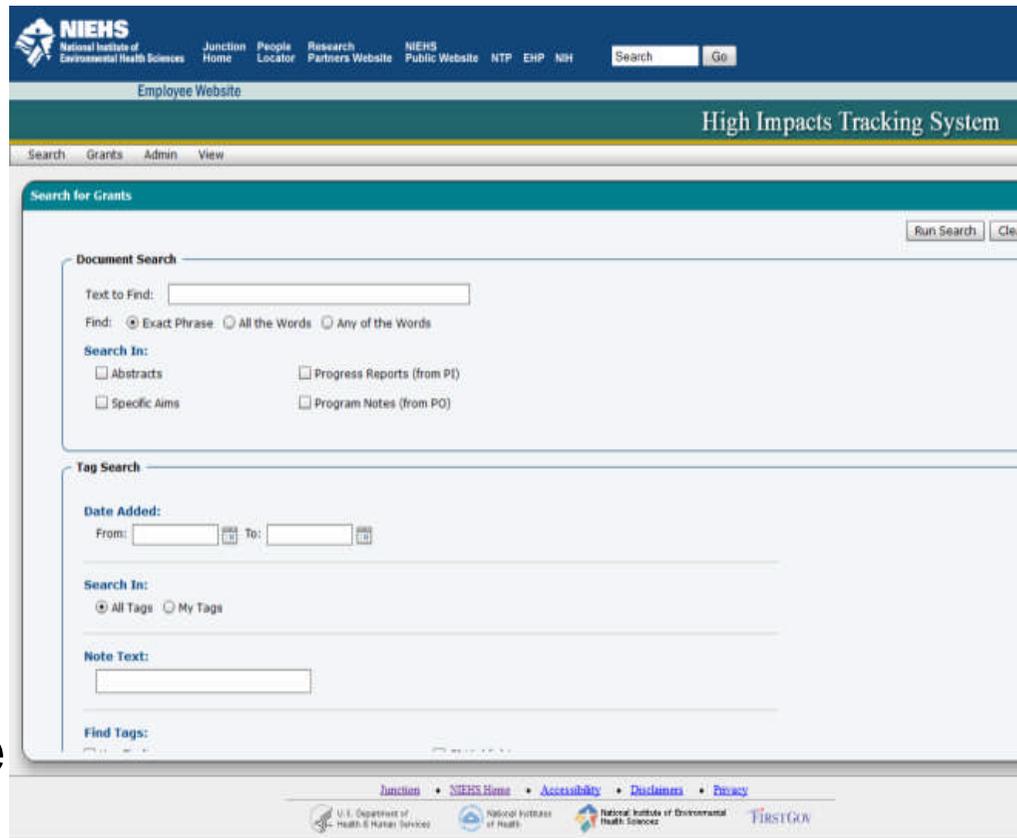


HITS Codes (Examples)

- Grant outputs/impacts
 - Animal models
 - Biomarkers
 - Curricula/guidelines
 - Databases/Software
 - Policy/Regulations
 - Sensors
 - Scientific findings
- Dissemination information
 - ARRA Reports
 - “BRAIN” database
 - NIEHS Paper of the month
 - Press Release

HITS Schedule

- At present: Proof of Concept System available
 - Program officers adding *****Key finding** to program notes
 - PAB can find these codes and add tags in the system
- Spring: Development cycle to improve tagging structure
- Summer: Full testing and implementation





CareerTrac Trainee Tracking

- Partnership with Fogarty International Center (10+ years in development)
- Goals
 - Provide a structured database that captures trainee outcomes:
Where are they now??
 - Improve access to existing data (T32 tables)
 - Scalable infrastructure
- Current “tenants”
 - FIC/NCI D43, R25 Grantees (N=5000+)
 - NIEHS T32 (N= 5000+)
 - NIEHS Superfund Trainees (N=1000+)

Evaluation Metrics Manual

- Public health, outreach programs may have impacts that don't appear in peer reviewed publications
- Themes:
 - Partnerships
 - Leveraging
 - Products and Dissemination
 - Education and Training
 - Capacity Building
- Metrics driven from goal-based logic models
 - Activities, Outputs, Impacts



<http://www.niehs.nih.gov/pephmetrics>

Take home messages

- Accountability = the new reality
- Lack of accepted ontology
- Data structures lacking
 - Need better access to existing information for evaluation purposes
 - No “right way” but we need to leverage efforts; work together
- Need to track products before we can measure impacts
 - Do we need to be tracking large volume datasets that are produced?
- Need strategies for assessing economic impacts



Questions?



Contact:

Christie Drew, Ph.D.

*Chief, Program Analysis Branch
National Institute of Environmental
Health Sciences*

Research Triangle Park, NC 27709

drewc@niehs.nih.gov / 919-541-3319

NIEHS Program Analysis Branch

- Martha I. Barnes
- Helena L. Davis
- Kristianna G. Pettibone
- Jerry Phelps
- Elizabeth Ruben

