THE ROLE OF ADMINISTRATIVE DATA WITHIN ECONOMIC EVALUATION
ROADMAP

- Economic Evaluation
- Administrative Data for Economic Evaluation
- Example: Mapping Public Investment, Evaluating Program Impact and Preparing for Performance-based Financing
- Resources for Economic Evaluation
Estimating the resource needs to replicate a program

Cost to deliver program with fidelity
ECONOMIC EVALUATION

Cost Analysis

Estimating the resource needs to replicate a program

Cost-Effectiveness

Estimating the incremental cost to achieve a specific impact

Cost to deliver program with fidelity

Cost per incident prevented
ECONOMIC EVALUATION

Cost Analysis
- Estimating the resource needs to replicate a program

Cost-Effectiveness
- Estimating the incremental cost to achieve a specific impact

Cost-Savings Analysis
- Estimating the budgetary impact (fiscal/financial) of a program in monetary terms

Cost to deliver program with fidelity
Cost per incident prevented
$ Saved to Budget or System
ECONOMIC EVALUATION

Cost Analysis
Estimating the resource needs to replicate a program

Cost-Effectiveness
Estimating the incremental cost to achieve a specific impact

Cost-Savings Analysis
Estimating the budgetary impact (fiscal/financial) of a program in monetary terms

Benefit-Cost Analysis
Estimating the societal impact of a program in monetary terms

Cost to deliver program with fidelity
Cost per incident prevented
$ Saved to Budget or System
$ Saved to Society
ADMINISTRATIVE RECORD USE IN ECONOMIC EVALUATION

- Cost Analysis
- Cost-Effectiveness
- Cost-Savings Analysis
- Benefit-Cost Analysis
ADMINISTRATIVE RECORD USE IN ECONOMIC EVALUATION

Admin Records:

- Site Budgets
- Personnel Records
- Service Delivery Logs
- In-Kind Inputs

Cost Analysis
Cost-Effectiveness
Cost-Savings Analysis
Benefit-Cost Analysis
ADMINISTRATIVE RECORD USE IN ECONOMIC EVALUATION

Cost Analysis
Admin Records:
- Site Budgets
- Personnel Records
- Service Delivery Logs
- In-Kind Inputs

Cost-Effectiveness
Admin Records:
- Health care
- Academic
- Arrest, Sentencing, Disposition
- Social Service
- Workforce Participation

Cost-Savings Analysis

Benefit-Cost Analysis
### Administrative Record Use in Economic Evaluation

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<thead>
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<th>Cost Analysis</th>
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**Admin Records:**
- Health care
- Academic
- Arrest, Sentencing, Disposition
- Social Service
- Workforce Participation
- Site Budgets
- Personnel Records
- Service Delivery Logs
- In-Kind Inputs

**Benefit-Cost Analysis:**
- Tax Records
- Asset Records
- Agency Operating Budgets
- Programmatic Budgets
## Administrative Record Use in Economic Evaluation

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Aim 1: Map Investments in Birth-Five Childhood Development across a Community Population

Aim 2: Evaluate the Economic Return of a Program for Coordinating Investment in Early Childhood

Aim 3: Develop Investment Strategies for Constructing Efficient Early-Childhood Prevention Portfolios
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AIM 1: MAP INVESTMENTS IN BIRTH-FIVE CHILDHOOD DEVELOPMENT ACROSS A COMMUNITY POPULATION

- Track internal and external resources available to the community for investment in children
- Identifying resources of public and private service providers
- Linking investments to the actual beneficiaries
  - What children consume which resources and how those resources can be more efficiently deployed.
## LOCAL ADMINISTRATIVE DATA

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<tr>
<th>Service Provider/Record Source</th>
<th>Contact</th>
<th>Agreed to Universal Consent</th>
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AIM 2: EVALUATE THE ECONOMIC RETURN OF A PROGRAM FOR COORDINATING INVESTMENT IN EARLY CHILDHOOD

- Benefit-cost analysis of the Durham Connects program
- How investments are differentially allocated to those participating in the program
- The return on this investment through follow-up into late childhood
  - Prevention of downstream costs to public health care, criminal justice, welfare, and education systems
DC IMPACT AT AGE 12-MONTHS

Mean Cumulative Number of ED Care Episodes through Age 12 months

- **Control Families**
- **DC Families**

Cumulative Emergency Episodes vs. Infant Age in Months
Durham Connects cost $700 to serve a family.

Hospital administrative records at infant age 12-months indicate that Durham Connects families had 50% less total emergency medical care utilization.

- (ER visits + hospital overnights) across the first 12 months of life.

Suggests for every 1 spent on Durham Connect leads to $3.02 in averted health expenditures.

*Dodge et al, 2103; 2014*
AIM 3: DEVELOP INVESTMENT STRATEGIES FOR CONSTRUCTING EFFICIENT EARLY-CHILDHOOD PREVENTION PORTFOLIOS

- Fiscal analysis of Durham Connects’ impact on community’s early childhood investment infrastructure

- Modeling payment schedule options to determine optimal investment approaches in DC
  - The minimum performance threshold for payment, the range of payments that can be received with better performance, the payment cap for top performance
North Carolina currently relies heavily on burdensome entitlement services (Medicaid) and remedial programs to respond to child maltreatment.

Government contracts with an intermediary to improve constituent lives, reducing demand for costly maltreatment and health services.

Intermediary raises capital from investors, manages nonprofit service provider, retains evaluation adviser and selects independent assessor.

Investors provide up-front capital to intermediary to pay for Durham Connects. Investors are repaid their capital plus a return only if DC meets predetermined performance targets.

Evaluation adviser monitors ongoing progress of Durham Connects. Working with the intermediary and service provider to refine program based on interim results.

An independent assessor determines if predetermined performance targets are met. If targets are achieved, government repays investors and pays a success bonus to intermediary and service provider.

Track participants of past and new prevention trials into administrative data records
- Rapidly estimate fiscal and economic costs
- Key outcomes of interest to policymakers

Healthcare Criminal, & Public Record Data Backbone
- CMS Virtual Research Data Center
- Truven Health Marketscan® Data
- Criminal & Public Record Data

Areas for Growth
- State Social Service and Child Welfare System
- State Longitudinal Education Data Systems
- Income Records
THANK YOU!!