Case-Level Data: Improving Clinical Practice and Outcomes

Jordan Institute Big Data Summit

October 2013

Dana Hagele, MD, MPH

Co-Director, NC Child Treatment Program

To Cover:

- NC Child Treatment Program: Data Exchange Platform
- *Fostering Connections* Legislation: Data Exchange Development Opportunity
- Discussion

NC Child Treatment Program

Brief Overview

The NC Child Treatment Program

Implementation platform for the delivery and support of evidence-based mental health treatment (EBPs) in multiple settings.

NC CTP Administration and Leadership

Administrative Home

- Center for Child and Family Health
- Executive Director: Robert Murphy, PhD

NC CTP Co-Directors

- Lisa Amaya-Jackson, MD, MPH
- Dana Hagele, MD, MPH

NC CTP Contracting Agency

- NC Division of Mental Health/Developmental Disabilities/Substance Abuse Services

Successful Implementation Requires: Institutional Funding

Per NC General Assembly (2013):

- **$1.8 million annually-recurring funds to support:**
  - Program implementation
  - Statewide dissemination
  - Ongoing clinical support and monitoring
- **$500,000 over two years to support development of data exchange platform (NC POP):**
  - Program management
  - Report to authorized entities

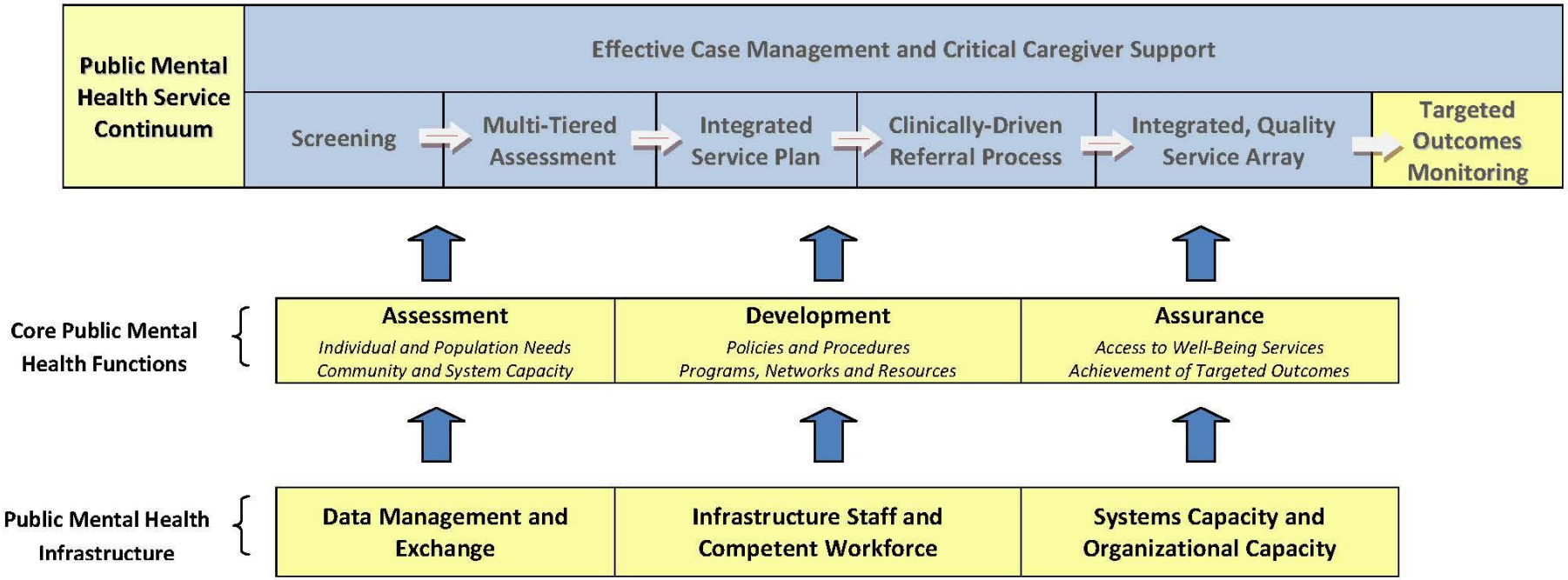
NC CTP Cornerstones

- EBP-specific training and coaching platform
- Treatment in community-based and restricted settings
- Performance and outcomes data platform (NC POP)
- Public roster of NC CTP-trained clinicians
- Collaboration with professionals and state entities:
  - Data-sharing
  - Expert case-level auditing
  - Public MH infrastructure development and support

NC CTP: Expanded Service Array

- Trauma-Focused Cognitive Behavioral Therapy (TF-CBT)
- Parent and Child Interaction Therapy (PCIT)
- Child-Parent Psychotherapy (CPP)
- Structured Psychotherapy for Adolescents Responding to Chronic Stress (SPARCS)
- Attachment and Bio-Behavioral Catch (ABC)
- General behavioral management model

Child Public Mental Health: Infrastructure, Core Functions, and Service Continuum



Data Exchange Platform

Performance and Outcomes Platform (NC POP)

NC CTP **Performance and Outcomes Platform** (NC POP) will support:

- Training platform implementation
- Public roster of trained clinicians
- EBP implementation (treatment)
- Utilization monitoring
- Fidelity and clinical outcomes tracking
- Data-sharing with stakeholders: Case and aggregate levels

NC CTP: Public Access

ABOUT CONTACTS LOGIN SEARCH [ ]

NC CTP North Carolina Child Treatment Program

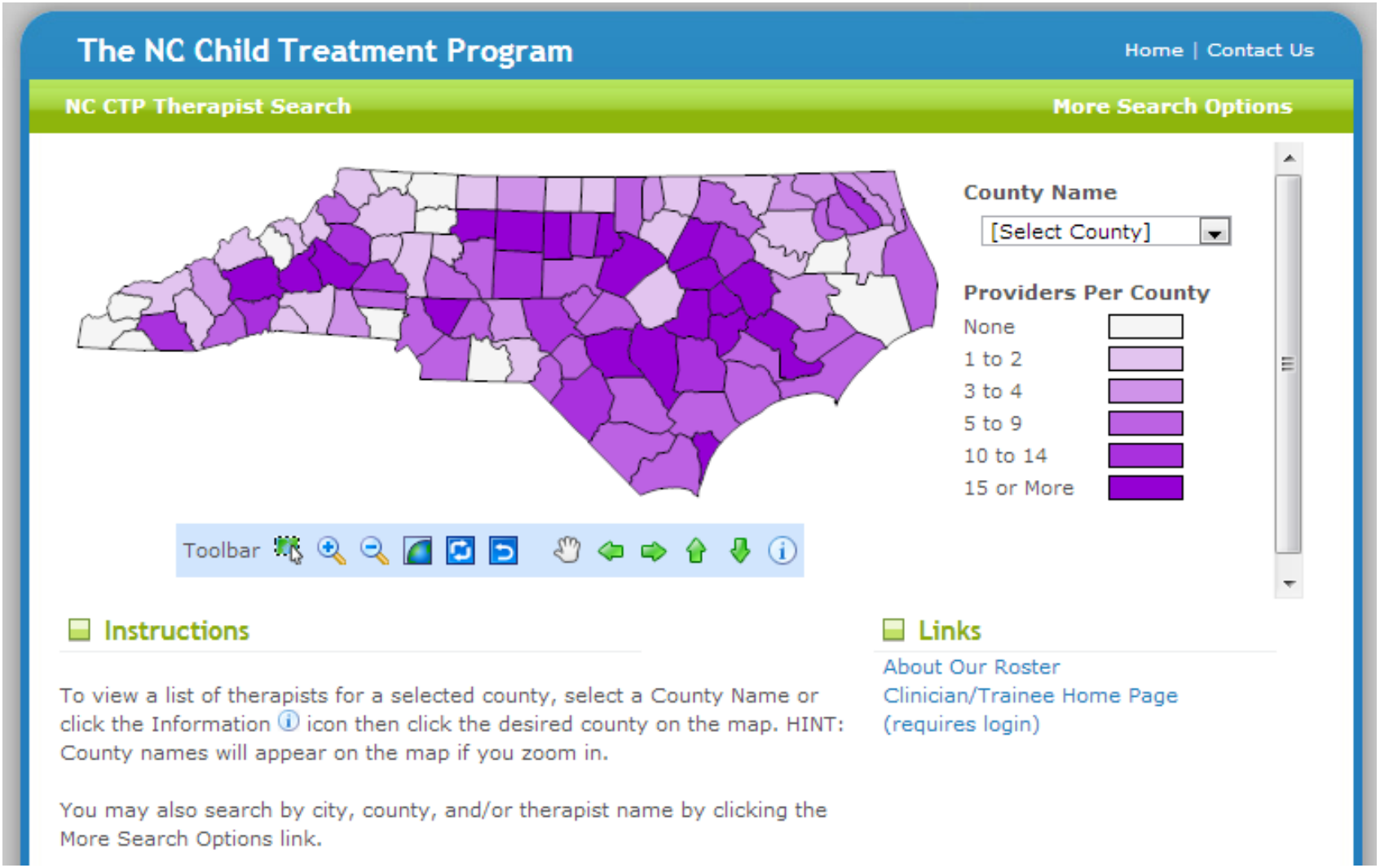
Professionals >
Pellentesque habitant morbi tristique senectus et netus et malesuada

General Public >
Pellentesque habitant morbi tristique senectus et netus et malesuada

Find a Therapist >

Training Opportunities >

NC CTP: TF-CBT Roster



NC POP

Data Points and Data Exchange

Data Points: Clinician-Specific

- Demographics
- Training data
- Clinical practice data
- Aggregate (caseload): Fidelity and outcomes data

Impact: Clinician-Specific Data

System:

- Work force mapping (drives future training)
- Monitor training success (drives future trainee-recruitment and program pruning)
- Performance-based contracting

Agency:

- Manage training investment

Clinician

- Self-monitoring

Data Points: Child-Specific

- Client/patient demographics
- Critical caregiver information
- Baseline clinical symptoms
  (per standardized assessment battery)
- Diagnoses and symptom profile
- Post-treatment outcomes (comparison pre- and post- treatment standardized assessment scores)
- Attrition rates and reasons

Impact: Child-Specific Data

- Map child service (and caregiver) need
- Map service gaps
- Inform referral process
- Monitor symptom improvement
- Predict attrition
- Predict treatment failure/identify on-going service needs
- Monitor outcomes across multiple domains

Data Points: Dyad-Specific

- EBP-specific fidelity score
- EBP-specific service utilization data
  - Number, duration and frequency of sessions
  - Session participants
  - EBP-specific session content
- Case management activities

Impact: Dyad-Specific Data

- Case and aggregate level: Clinical competency and fidelity monitoring
- EBP-specific cost modeling
- EBP-specific cost-effectiveness assessment
- Case management support

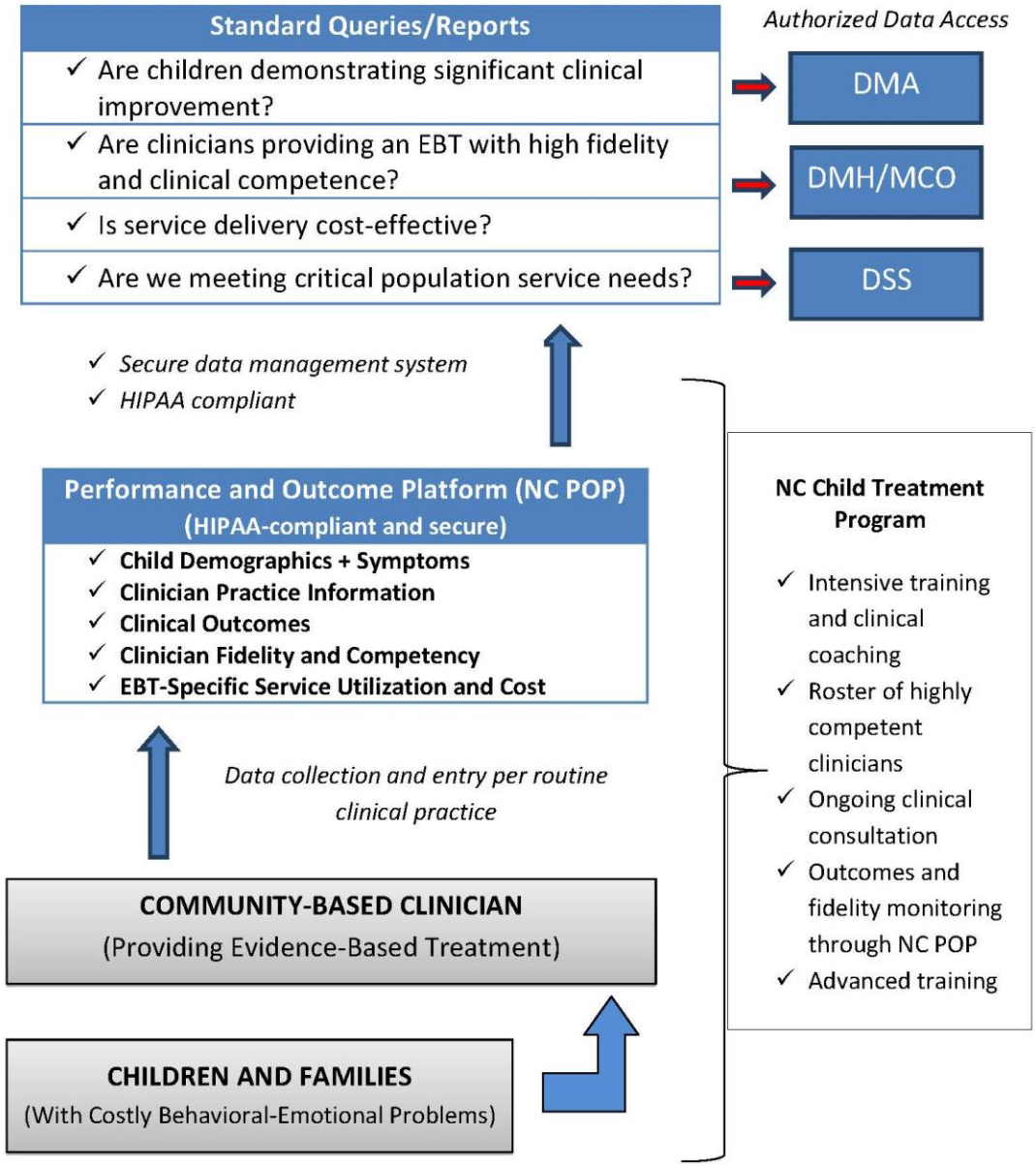
Potential Data-Sharing Process

- Identify meaningful data points
- Select unique ID numbers
- Identify authorized data recipients
- Develop secure, confidential data exchange process

Potential Data Sharing Process continued:

- **Clinicians:**
  - Enter enrollment and clinical encounter data
  - Share case/caseload data with supervisors and agency administrators
- **NC Child Treatment Program faculty:**
  - Aggregate case-level data
  - Send automated (aggregate) report to authorized entities
  - Send "flagged" case-level data to authorized entities

Figure Three: NC Child Treatment Program
Performance and Outcomes Platform (NC POP)



Fostering Connections Legislation

Clinical Data System
Development Opportunity

Fostering Connections to Success and Increasing Adoptions Act of 2008

Foster Care Health Oversight and Coordination Plan to:

- Meet health, dental, developmental, behavioral-emotional, and educational needs of children in foster care.
- Update and share critical health data, through standardized protocols - potentially an electronic, "well-being passport."

To Consider:

Through CCNC Informatics Center:

- Develop **Foster Care Well-Being Passport** template
- Develop an access protocol
- Integrate easily accessible data
  - Administrative data
  - Large health data sets (immunization records)
- Identify pie-in-the-sky data sources
  - Education (promotion/retention, IEP)
  - Medical home data (EHR)
  - Case-level treatment/outcomes/fidelity data (NC CTP

Discussion

Dana Hagele, MD, MPH
dana_hagele@med.unc.edu