Designing and Using an Effective Data Management System: Components and Considerations

PRESENTERS:

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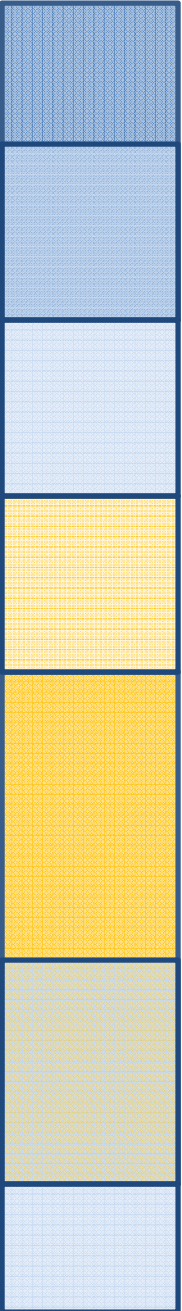
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DOHVE: Design Options for Maternal, Infant, and Early Childhood Home Visiting Evaluation

- Working with US-DHHS to support the federal Maternal, Infant, and Early Childhood Home Visiting Program

- DOHVE:
  - ✓ Design options for a federal evaluation of evidence-based home visiting programs
  - ✓ Evaluation-related Technical Assistance (TA) for "promising approaches"
  - ✓ TA for grantees' continuous quality improvement, Management Information Systems (MIS), and benchmarks

DOHVE Evaluation TA Team

- James Bell Associates (JBA)
- MDRC
- Cincinnati Children's Hospital Medical Center & Every Child Succeeds

Goals of Session

- Review why an effective data management system can be useful for home visiting programs

- Identify the components of an effective, useful, and value-added data management system

- Describe features of data management systems that are user-friendly

Data Management Systems: What's Important
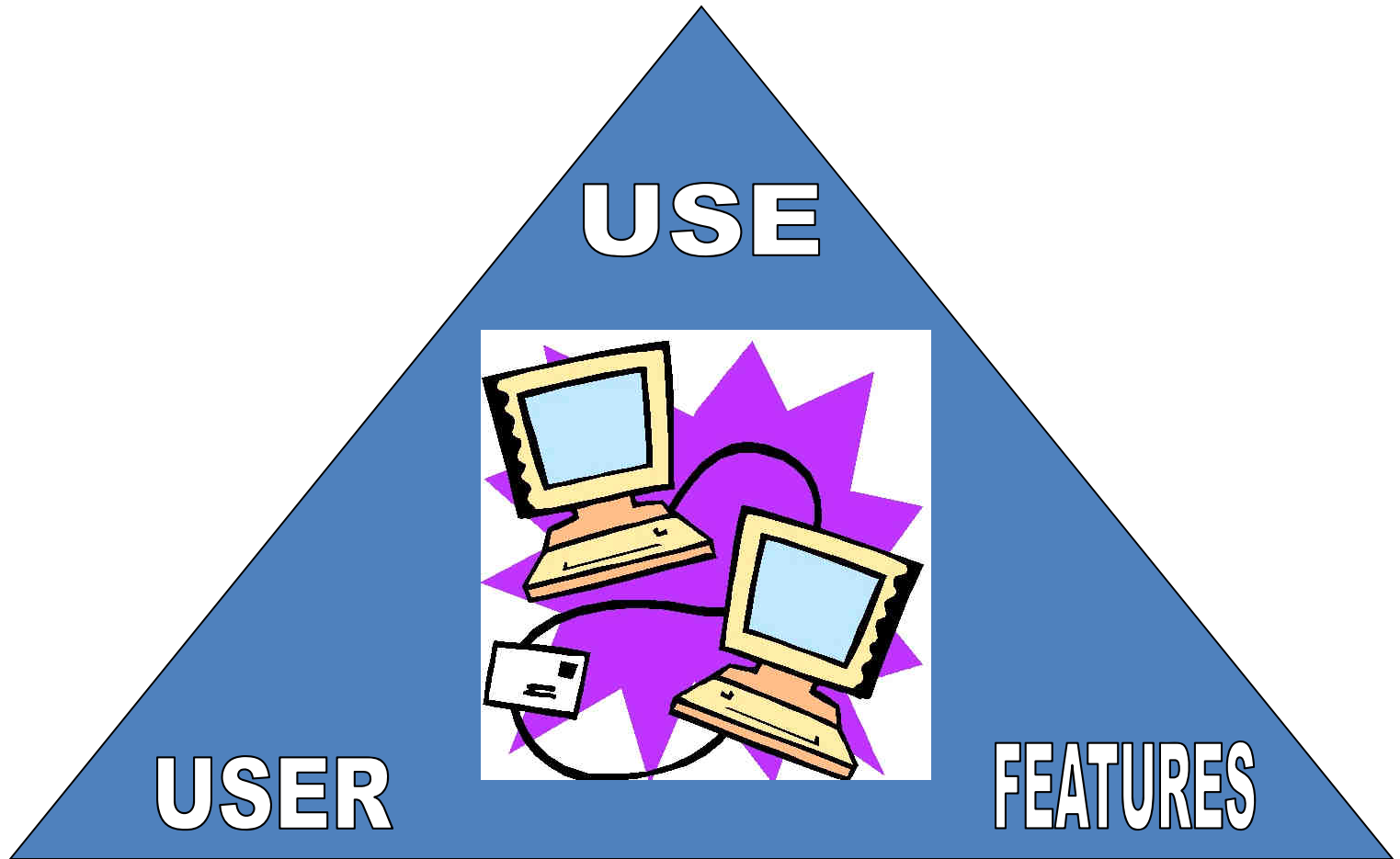
Data Management Systems Should.....

- Help home visitors do their jobs more effectively

- Help home visitors do their jobs more efficiently so they have more time to devote to families

- Serve the needs of families, home visitors, and home visiting programs

- Provide options for collection of qualitative and quantitative data

- Assist management in supervision and meeting reporting requirements

Stakeholders: Who Should Be Involved in Selecting or Developing a Data Management System

- Families

- Home visitors

- Home visiting programs

- Community leaders

- Funders

Transform users into OWNERS
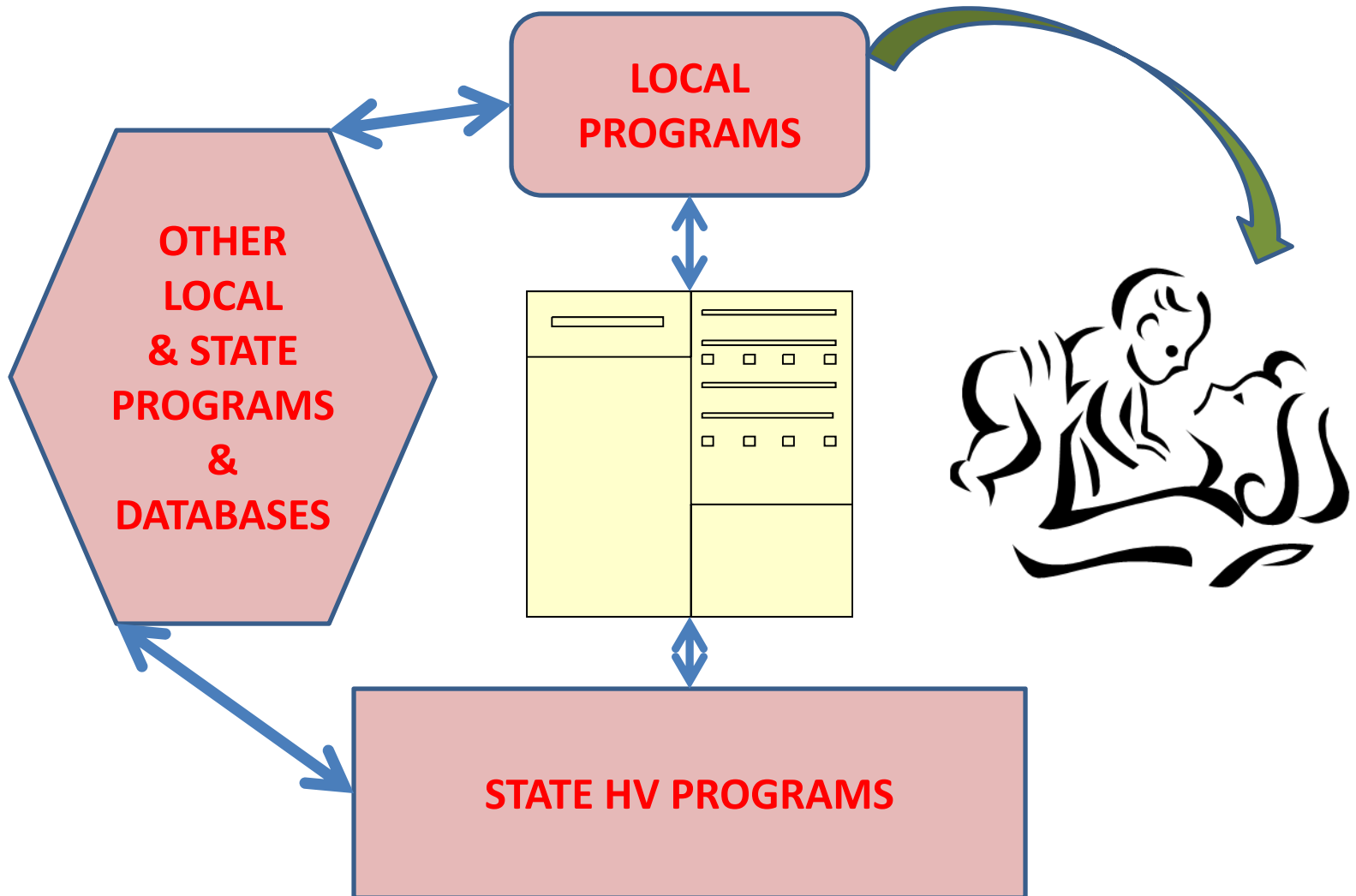
Data Management Systems: Use

- Stores information about families, home visitation service, and outcomes

- Stores information about benchmarks

- Helps home visitors maintain fidelity to home visitation models

- Drives Continuous Quality Improvement

- Allows tying together of information from different sites, communities, and programs to promote learning

- Longitudinal tracking of clients within and between programs

CQI & the Updated Plan for State Home Visiting Programs

- Plan for Continuous Quality Improvement must be in the Updated State Plan

- Plan must include:
  - How CQI will be developed and used at local & state levels
  - How data systems will be used to support ongoing CQI
  - How benchmark data for CQI will be obtained and used at the local program, community, and state levels

Using Data to Drive CQI

LOCAL PROGRAMS

OTHER LOCAL & STATE PROGRAMS & DATABASES

STATE HV PROGRAMS

Data Management Systems: Essential Features

- Store data that are important

- Easy to use and accessible to all who need to use it

- Flexible

- Affordable

- Easily produce meaningful reports

Data Management Systems: Essential Features (cont.)

- Be able to "talk" to other data systems

- Link cases within and between systems

- Secure

- Multilevel access rules and rights

- Interface with other software (e.g., email, financial)

Users: What They Want from a Data Management System

- "Don't make me think"

- Engaging and appealing

- Familiar features

- Easy—checkboxes, radio buttons, pull down menus

- Only enter data once

- Important information is "above the fold"

Users: What They Want from a Data Management System (cont.)

- Anything a user can do…she can easily undo

- Minimal penalty for making a mistake

- Interactive – immediate feedback

- Provides useful information—red flags, measurement scores, etc.

- Interfaces with other organizing or management software

MIS Options and Sources
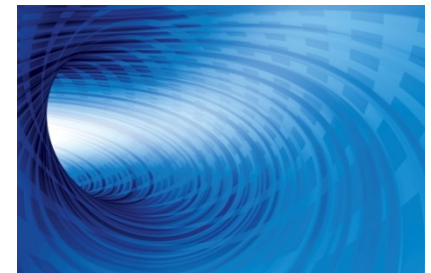
Design your own

- Requires more resources upfront and for maintenance

- Provides more choice and flexibility

MIS Options and Sources (cont.)

Modify existing systems

- May require considerable changes to database structure and formatting

- Permits preservation of database elements that are useful and for which an investment has been made

MIS Options and Sources (cont.)

Commercial software is available that is designed for social service programs or clinical management

- Some can be and are used with diverse home visitation programs (easy fit)
- Others can be used with home visitation but are designed for clinical management (hard fit)
- Fewer resources required, flexibility ranges: control dependent on client's staff expertise and product selected

Brief List of Potential MIS Options

- Data Keeper Technologies – www.visittrackerweb.com

- Data Systems International – www.clienttracker.com

- Foster Care – www.ersoftware.com

- Global Vision Technologies – www.famcare.net

- Go Beyond - www.gobeyondmch.com

- Results Technologies Solutions , Inc. – www.resultsonline2.com

- Social Solutions - www.socialsolutions.com

And more…..

Checklist: What to think about in considering MIS options

√ Flexibility and customizability

√ Easy to use, intuitive

√ Broad access, real time access

√ Options for qualitative data collection

√ Provides useful information that can drive service

√ Creates useful reports that are important to you

√ Affordability and maintenance needs

HBDS – Children's Services Council

- ## Independent Special District established in 1986

- ## CSC's Mission

  - *The Council's mission is to enhance the lives of children and their families and enable them to attain their full potential by providing a unified context within which children's needs can be identified and resolved by all members of the community. To achieve this, the Council plans, develops, funds, and evaluates programs and promotes public policies which benefit Palm Beach County's children and families.*

HBDS – Healthy Beginnings

- 1997: "System" funding- MCH

- 2004: A new infrastructure for MCH

- 2009: Healthy Beginnings – A new system is formed

- The current Healthy Beginnings system consists of 19 agencies, providing nearly 30 early intervention and prevention programs to pregnant women and families with children through age 5.

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HBDS – The Data Systems

- RightTrack (2001 – 2007)

- FOCiS (2007 – 2009)

- Enhanced FOCiS (2009 – Present)

- Healthy Beginnings Data System (currently under development)
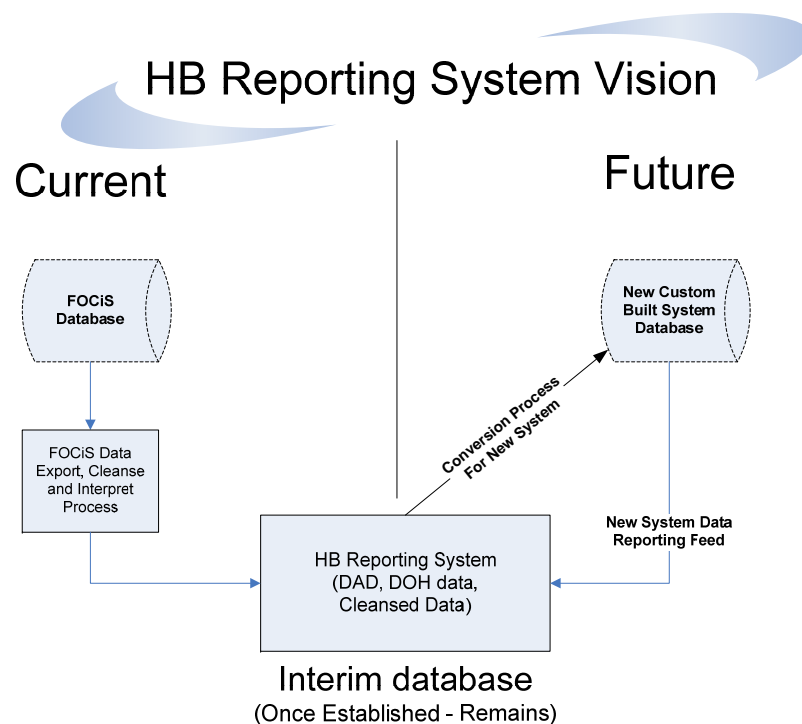
HBDS – The Assessment

- Studied HB Business Model / Needs
- Interviewed users to understand pain points and needs
- Determined FOCiS scalability and extensibility
- Considered COTS package availability
- Considered interface needs with other data systems

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HBDS - Recommendations

- From the assessment the following recommendations were made:

  - Family-centric data system

  - Clean and accurate data

  - Reporting and outcomes measurement

  - Holistic program and system management

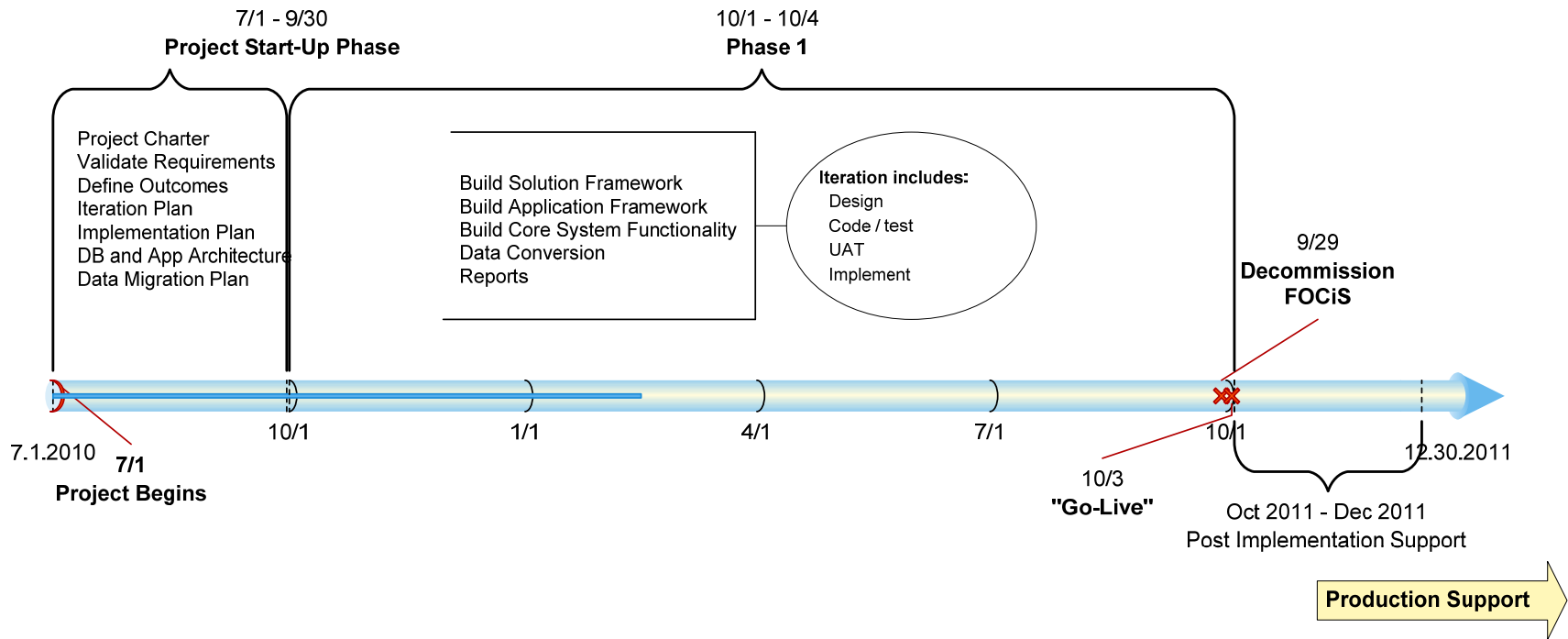 - Cost effective hosted technology

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HBDS – Reporting System Vision

More robust reporting solution needed and a chance to clean the data

HB Reporting System Vision

Current | Future

FOCiS Database

New Custom Built System Database

FOCiS Data Export, Cleanse and Interpret Process

Conversion Process For New System

New System Data Reporting Feed

HB Reporting System (DAD, DOH data, Cleansed Data)

Interim database
(Once Established - Remains)

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HBDS – Phase 1

Project Start-up &
Phase 1
Custom Build Roadmap
(est 15 months)

7/1 - 9/30
Project Start-Up Phase

10/1 - 10/4
Phase 1

Project Charter
Validate Requirements
Define Outcomes
Iteration Plan
Implementation Plan
DB and App Architecture
Data Migration Plan

Build Solution Framework
Build Application Framework
Build Core System Functionality
Data Conversion
Reports

Iteration includes:
Design
Code / test
UAT
Implement

9/29
Decommission
FOCiS

7.1.2010   **7/1**
Project Begins

10/1   1/1   4/1   7/1   10/1   12.30.2011

10/3
"Go-Live"

Oct 2011 - Dec 2011
Post Implementation Support

Production Support

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HBDS – The Approach

An iterative approach gives us the ability to learn and test as we build
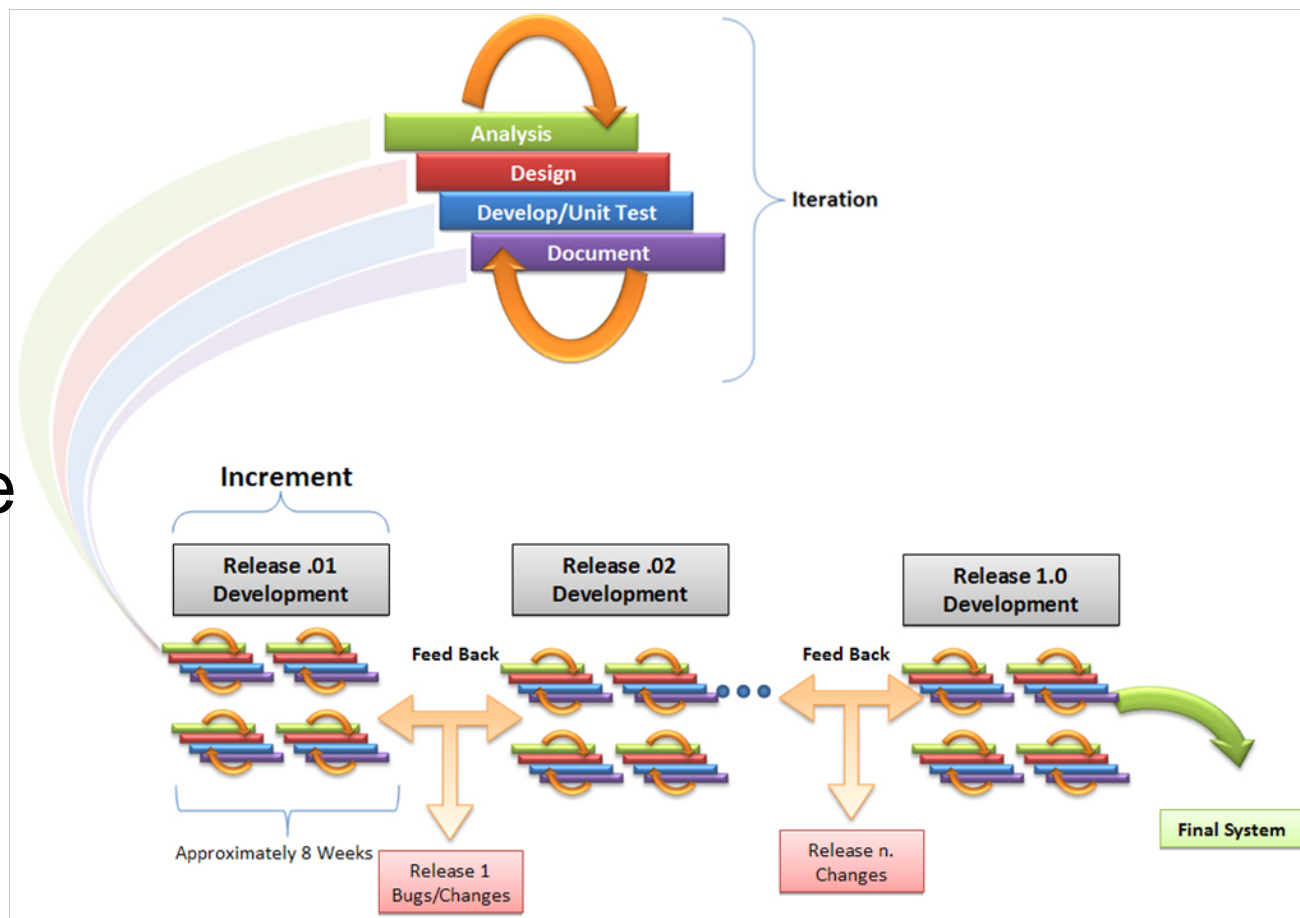
Using and Integrating State Data Systems: Lessons Learned from the Early Childhood Data Collaborative

Albert Wat, Pre-K Now

Pew Center on the States

The Early Childhood Data Collaborative

A PARTNERSHIP OF

The Center for the Study of Child Care Employment at UC Berkeley

Council of Chief State School Officers

Data Quality Campaign

National Center for Children in Poverty

National Conference of State Legislatures

National Governors Association Center for Best Practices

Pre-K Now, a campaign of the Pew Center on the States

The ECDC will—

- Support state policymakers' development and use of coordinated state early care and education data systems to *improve program and workforce quality, access to high quality programs,* and *child outcomes*;

- Provide tools and resources to support states in shaping relevant policies; and

- Provide a national forum to support coordinated state ECE data systems.

Theory of Action

- Start with the policy questions
- Guiding principles
  - From compliance to improvement efforts
  - From fragmented efforts to coordinated systems
  - From snapshot to longitudinal data
- "Fundamental" components
- Support state activity to advance ECE data systems

# Can your state answer these policy questions?

- Are **children**, birth to age five, on track to succeed at school entry and beyond?

- Which **children** have access to high quality early care and education programs?

- Is the quality of **programs** improving over time?

- What are the characteristics of effective **programs**?

- How prepared is the **workforce** to provide effective education and care for all children?

- What policies and investments lead to a skilled and stable early childhood **workforce**?

What are "Early Childhood" Data?

- The ECDC recognizes that multiple domains are important to early childhood – ECE, special needs, health and family support… including home visiting.
- The ECDC framework focuses on the ECE domain—
  - Subsidized Child Care
  - Licensed Child Care
  - Early Intervention (IDEA Part C)
  - Early Childhood Special Education (IDEA Part B Section 619)
  - State Pre-kindergarten
  - State-funded Head Start or Early Head Start

10 FUNDAMENTALS
of Coordinated State ECE Data Systems
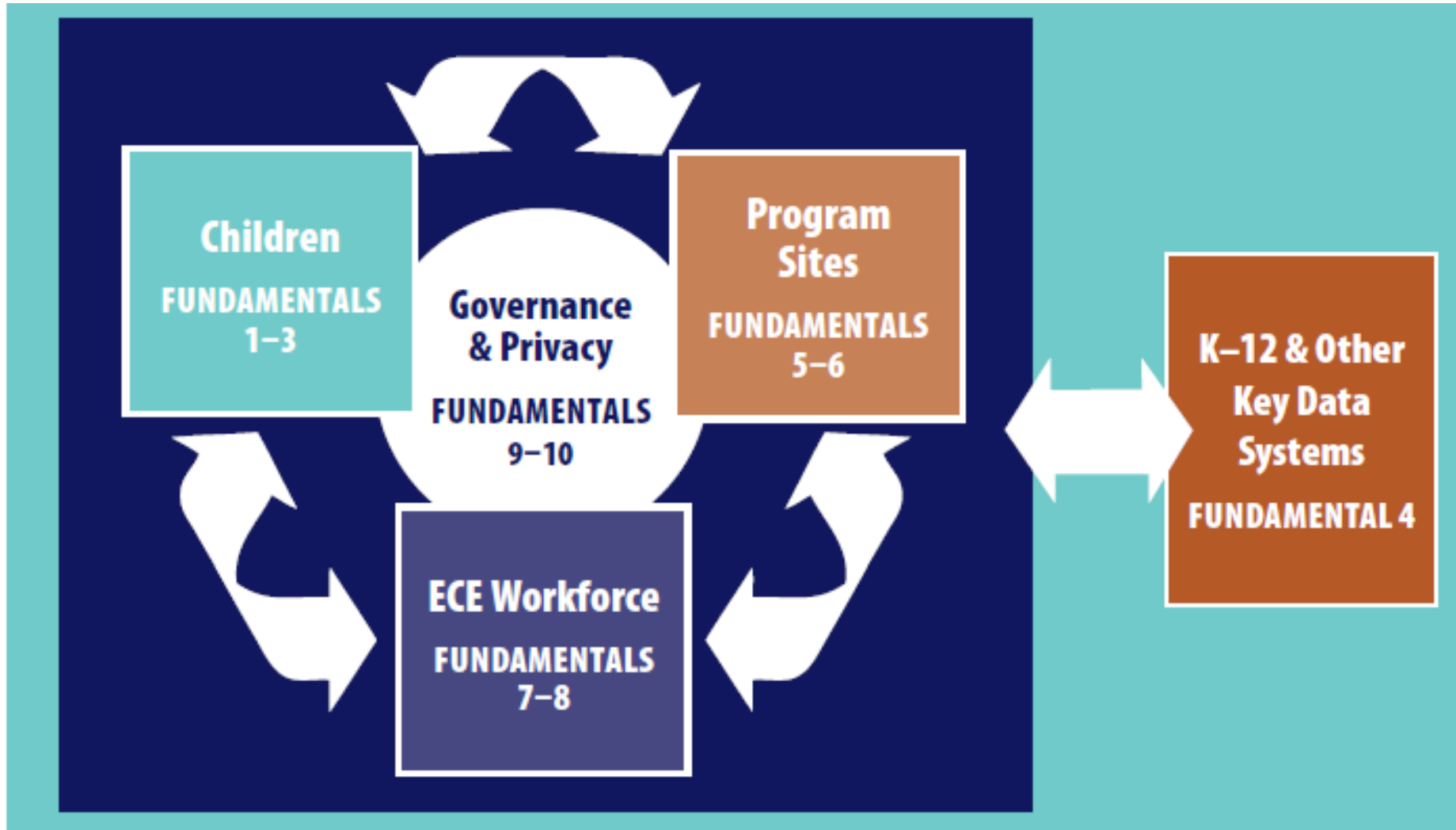
10 FUNDAMENTALS
of Coordinated State ECE Data Systems

1. Unique statewide child identifier
2. Child-level demographic and program participation information
3. Child-level data on child development
4. Ability to link child-level data with K-12 and other key programs
5. Unique program site identifier with the ability to link with children and the ECE workforce
6. Program site structural and quality information
7. Unique ECE workforce identifier with ability to link with program sites and children
8. Individual-level data on ECE workforce demographic, education and professional development information
9. State governance body to manage data collection and use
10. Transparent privacy protection and security practices and policies

Potential Barriers/Challenges

- Starting with siloed agencies and systems
- Limited funding
- Concerns about data collection, especially children
- Overcoming compliance culture
- Promoting appropriate data use

Ensuring Appropriate Access and Use

- Data need to be timely and user-friendly.

- Build stakeholders' capacity to understand and use data.

- Partnering with research and higher ed communities.

- Balancing access with privacy.

Leading State: Pennsylvania

- Developed Early Learning Network that interfaces with existing system (PELICAN)

- Includes state pre-k, child care, QRIS, Part B and Part C

- Uses unique ID for child, program and workforce

- Contains data about family demographics, health, enrollment, workforce, classroom quality, child outcomes

- Produces reports for parents, teachers, providers and state agencies

- Provides training for ECE staff

- Next steps: link to K-12, home visiting and HHS programs

Leading State: Maryland

- Maryland Model for School Readiness
  - Kindergarten readiness assessment
  - Includes demographics and ECE experience
  - Linkage to K-12 system via unique ID
- Child Care Automated Tracking System
  - All licensed programs serving young children
  - Uses unique program and workforce ID
  - Includes program rating, workforce data (e.g., credentials, wages)
- Next steps: link MMSR and CCATS, include Head Start data, collect more data about program quality and staff characteristics

Learning from PA/MD

- Consolidated/coordinated governance
- Buy-in and leadership from top-level policy makers
- Leveraging existing data systems
- Public and private funding

ECDC Resources

- Building and Using Coordinated State Early Care and Education Data Systems

- Getting Started: 10 Fundamentals of Coordinated State Early Care and Education Data Systems

- A Look at Maryland's Early Childhood Data System

- A Look at Pennsylvania's Early Childhood Data System

- Coordinated State Early Care and Education Data Systems: What's Next in the States?

www.DataQualityCampaign.org

Contact the ECDC:

Birth to Five Policy Alliance

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Pre-K Now, a campaign of the Pew Center on the States

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Next Steps

Stay tuned for additional webinars, individualized TA, and other information from the Evaluation TA team on:

- ✓ Peer Learning Network discussion re: data systems
- ✓ Selecting outcome and benchmark measurement tools
- ✓ Conducting rigorous evaluations with small sample sizes
- ✓ And more…

Upcoming & Recent Webinars

- Measuring benchmarks—March 3, 2011, 3:00-4:30 pm EST

- Conducting rigorous evaluations—April 14, 2011, 3:00-4:30 pm EST

- Recent webinar: Building a culture of quality in home visiting—January 13, 2011: http://www.mdrc.org/project_12_104.html

Questions and Comments
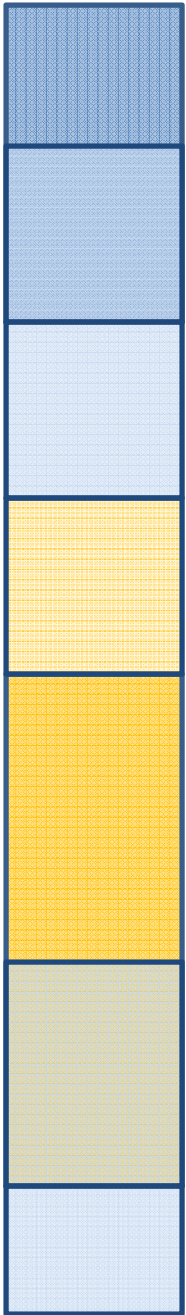
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