



**National
Human Services
Data Consortium**

2018 Spring Conference

Pittsburgh, PA

April 18-19, 2018

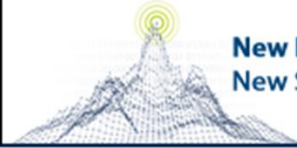
Using Data and System Modeling to Leverage Resources and Improve Your System

Joyce Probst MacAlpine, Abt Associates

Alan Witchey, CHIP



**New Frontiers in Data
New Systems, Partners, and Technologies**



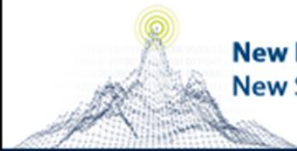
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SESSION GOALS

Learn the basic principles of system modeling

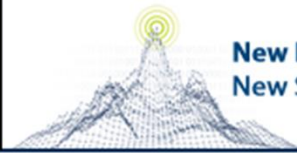
Introduction to the system modeling module in the forthcoming System
Performance Improvement Strategy Tool (SPIST)

Learn how one community used system modeling to leverage new resources
and facilitate system change



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SYSTEM MODELING OVERVIEW



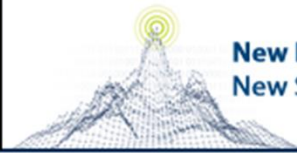
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Defining the End of Homelessness

The United States Interagency Council on Homelessness (USICH) has developed an operational definition of the end of homelessness:

An end to homelessness **does not mean that no one will ever experience a housing crisis again....**

An end to homelessness means that every community will have a **systematic response in place** that ensures homelessness is **prevented whenever possible** or is **otherwise a rare, brief, and non-recurring** experience.



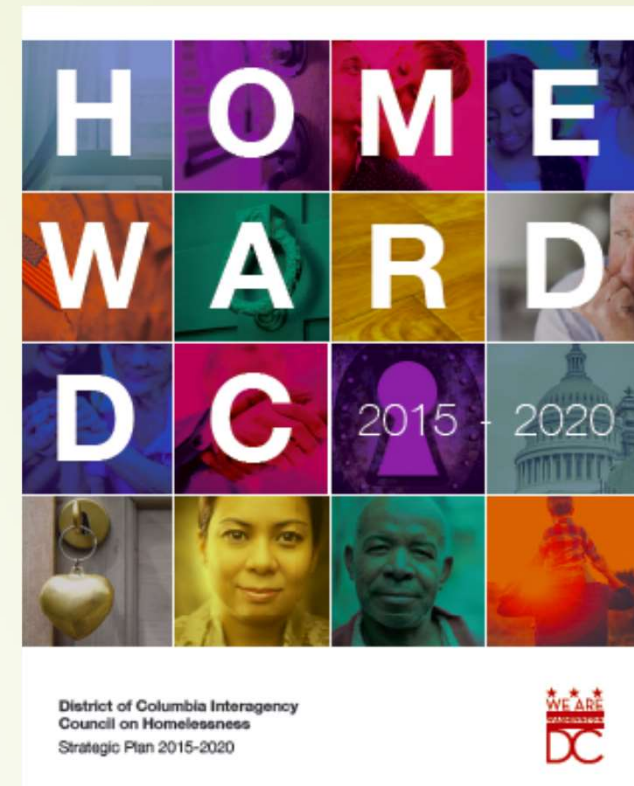
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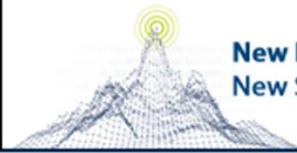
System Modeling Purpose

System modeling is a technique to create an ideal model of the inventory and performance needed by a system to provide the assistance needed to exit every individual and family experiencing homelessness to permanent housing.

Once the ideal model has been developed it can be used to:

- Advocate for increased resources
- Prioritize investments and programmatic changes to transition current homeless system and projects to the ideal system





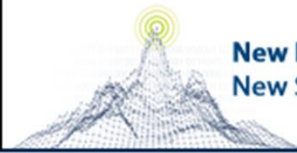
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Preparing for System Modeling

CoC Board and other stakeholders commit to strategic planning included developing a data informed model of the inventory needed to meet the needs of all households experiencing homelessness annually.

Appoint a System Modeling Committee with broad representation of providers, mainstream partners, funders, people with lived experience of homelessness, other community partners.

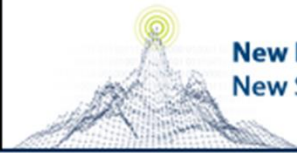


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System Modeling Process Overview

- Develop program models with costs estimates if desired
- Analyze HMIS and other data to develop an annual count of the people experiencing homelessness by subpopulation
- Review system utilization data to understand how current system functions
- Develop assumptions for modeling
- Using annual count data and system assumptions calculate inventory
- Develop costs estimates for new system

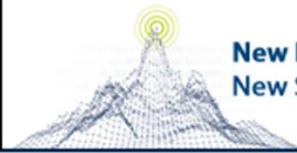


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Developing Optimal System Assumptions

- For each population develop combinations of programs or pathways that people would ideally use to rapidly exit to permanent housing
- For each pathway estimate the portion of the population that will need that pathway to exit
- For each program in the pathway estimate the average length of stay



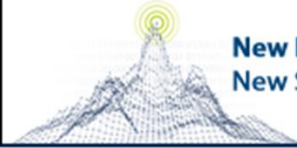
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Calculating Inventory

Using annual count and assumptions about pathways and length of stay, can determine the number of units or beds or subsidy slots needed at a point in time.

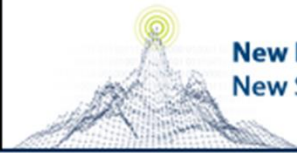
Example – 10 individuals enter shelter each month

Pathway with % of HHs	LOS in ES	Beds Needed
ES only – 20%	2 weeks	1 bed
ES+TH – 10%	1 month	1 bed
ES+RRH – 50%	1 month	5 beds
ES+PSH – 20%	2 months	4 beds
Total beds		11 beds



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SYSTEM MODELING RESOURCES



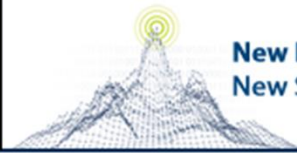
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SPIST Optimizing System Strategies Module

System modeling scenario in HDX with access to LSA data on annual counts and system utilization.

Using on-screen prompts and supporting materials, CoCs and their partners can conduct system modeling for their community.

Support for transition planning from current system inventory to ideal system inventory over multi-year timeline.

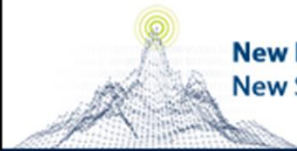


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Other Modeling or Analytical Tools

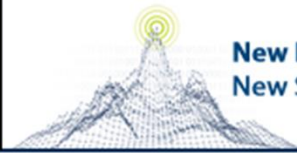
Data informed decision-making supported by analytical tools to:

- Rate project performance and rank projects for funding – CoC Project Rating and Ranking Tool (HUD Exchange)
- Maintain a master list for Veterans and calculate Veteran benchmarks – Master List Template and Benchmark Report Generation Tool (HUD Exchange or USICH)
- Estimate number of crisis response beds needed (forthcoming)



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INDIANAPOLIS SYSTEM MODELING PROJECT



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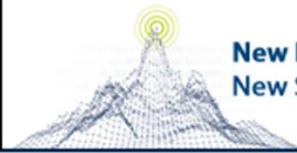
SYSTEM MODELING PROCESS

Develop a model of the system of housing and services interventions that would more effectively meet the needs of individuals and families experiencing homelessness in Indianapolis

CHIP contracted with Abt Associates to:

- conduct system modeling
- analyze HMIS and other data to understand the way people use the current system

System Modeling Steering Committee met with Abt staff five times over nine months to develop the system modeling assumptions and review the system utilization analysis results

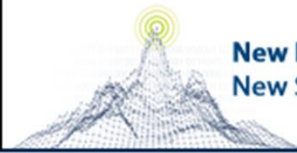


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Subpopulations

System modeling conducted for the following household types and subpopulations:

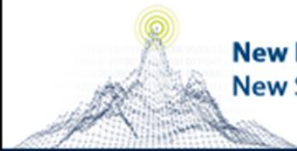
- Families
- Parenting Youth age 18-24
- Individuals age 25+ (non-Veteran & non-chronically homeless)
- Single Youth age 18-24
- Chronically homeless individuals age 18+
- Veterans age 18+
- Chronically homeless Veterans age 18+



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Family System Assumptions

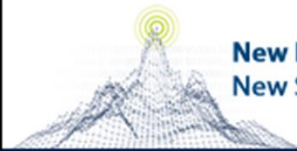
Pathways	Percent of Families	Diversion	ES	TH	RRH	PSH
Diversion	20%	3				
Emergency Shelter (ES) Only	15%		1			
Transitional Housing (TH) from Coordinated Entry	2%			6		
Transitional Housing from ES with RRH at exit	2%		1	6	3	
Rapid Re-housing (RRH) - one-time assistance	5%		1		1	
Rapid Re-housing – med-term assistance	50%		1		4	
Permanent Supportive Housing (PSH)	6%		1			1 (unit)



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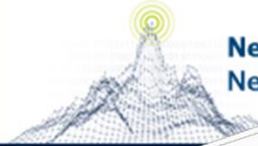
Recommended Family Inventory

Program Type	Inventory Recommendation at a Point in Time	Families Served in a Year by each Bed/Unit/ Subsidy Slot
Diversion	45 services & subsidy slots	180
Emergency Shelter	57 family shelter units (average family size 3.34)	684
Transitional Housing	18 family units	36
Rapid Re-housing	156 services & subsidy slots	508
Permanent Supportive Housing	53 units a year available through turnover or new development	53
TOTAL	329 units or subsidy slots	890 families served by one or more programs



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LEVERAGING RESOURCES WITH SYSTEM MODELING



BREAKING NEWS

Hogsett pledges 'permanent' housing for 400 homeless residents



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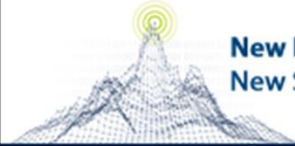
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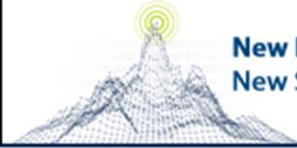
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Balance of State





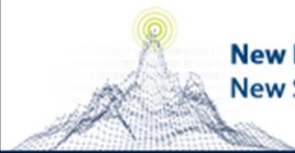
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Private Funding and Priority Alignment





Indianapolis Continuum of Care

Making homelessness in Indianapolis rare, short-lived and recoverable

- Priority Populations
- Elimination of some GPD
- Re-balance GPD into HUD VASH
- Reallocations of Youth PSH to Youth RRH
- Diversion Lead
- ESG Alignment

ADULT & CHILD
HEALTH



Volunteers of America®



Architectural blueprint background featuring a detailed floor plan with various rooms, corridors, and service areas. Room area measurements are provided in square meters (m²). Key areas include:

- Top left: 18.17 m²
- Top center: 12.04 m²
- Top right: 14.49 m²
- Middle left: 27.56 m²
- Middle center: 26.75 m²
- Middle right: 17.62 m²
- Bottom left: 2.76 m²
- Bottom center: 18.13 m²
- Bottom right: 25.56 m²

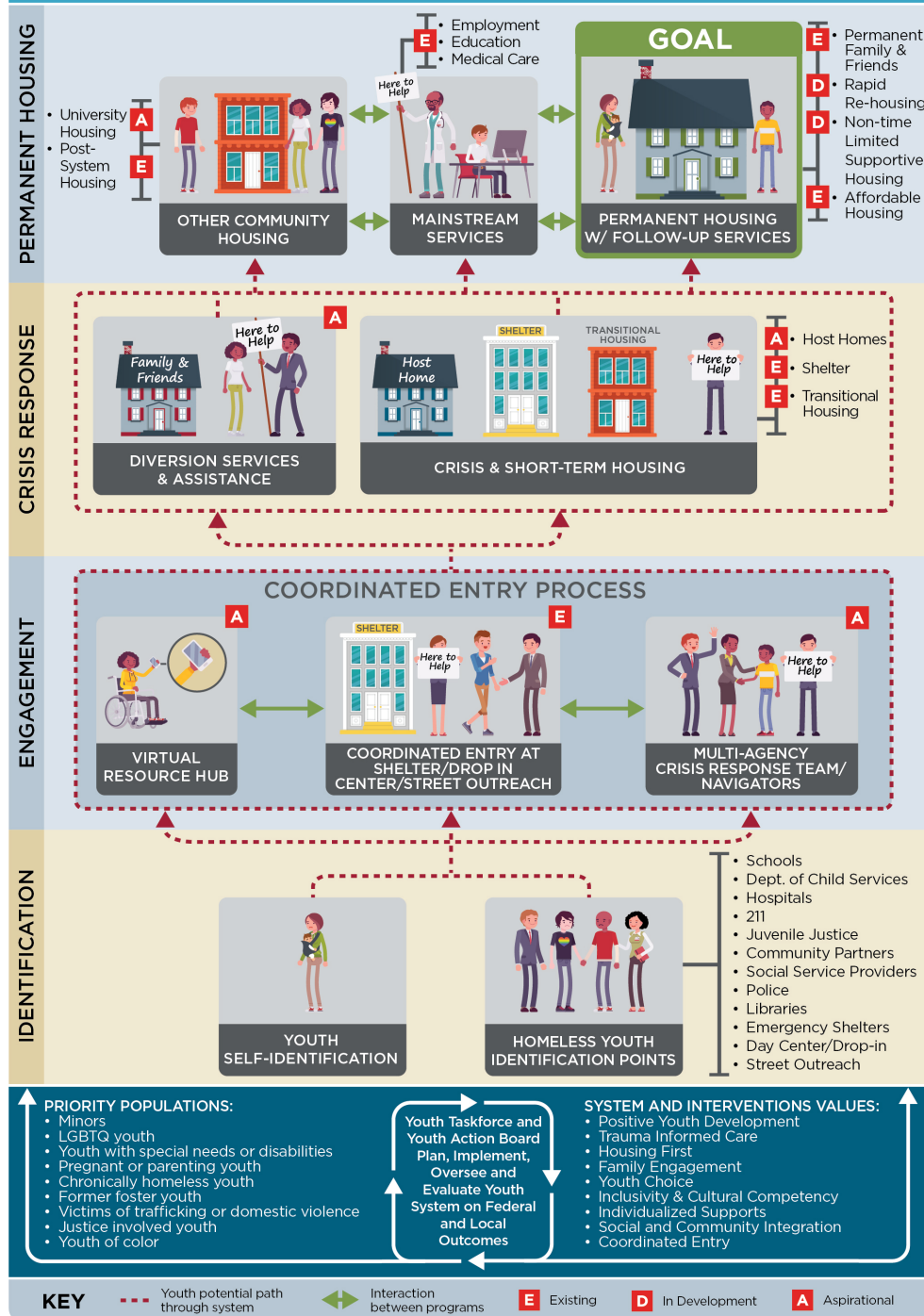
Other labels include 'SANIT' (Sanitary), 'SERVICO' (Service), 'P1', 'P2', and 'P3' indicating specific points or rooms within the plan.

Blueprint 3.0 Planning



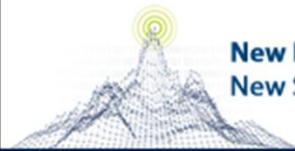
Homeless Youth Initiative

Indianapolis Youth Homelessness Coordinated Community Approach





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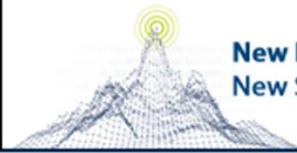
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Data-driven Decisions



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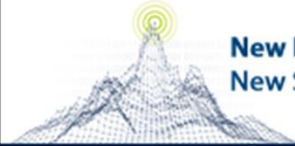
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Contact Information

Joyce Probst MacAlpine, Abt Associates
Joyce_MacAlpine@abtassoc.com

Alan Witchey, CHIP
AWitchey@CHIPindy.org