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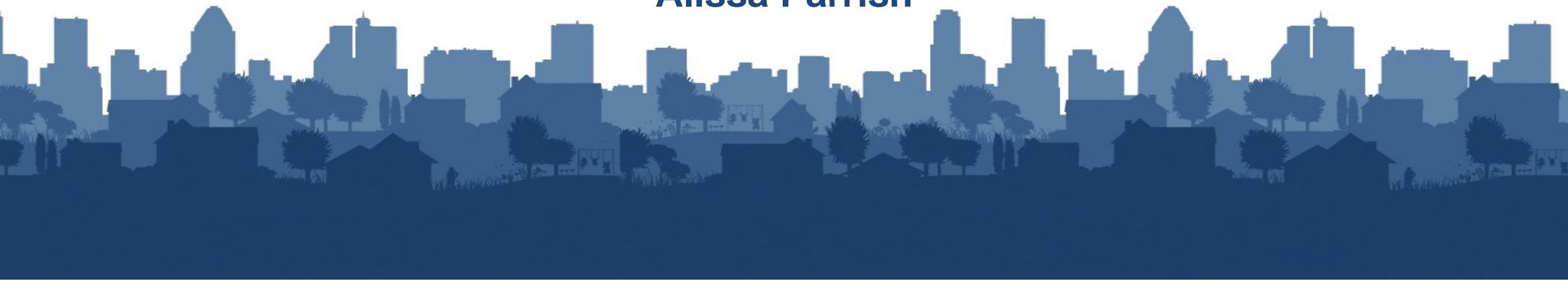
COMMUNITY PLANNING & DEVELOPMENT

Data Quality 101
What is Data Quality?
May 5th, 2020

Meradith Alspaugh
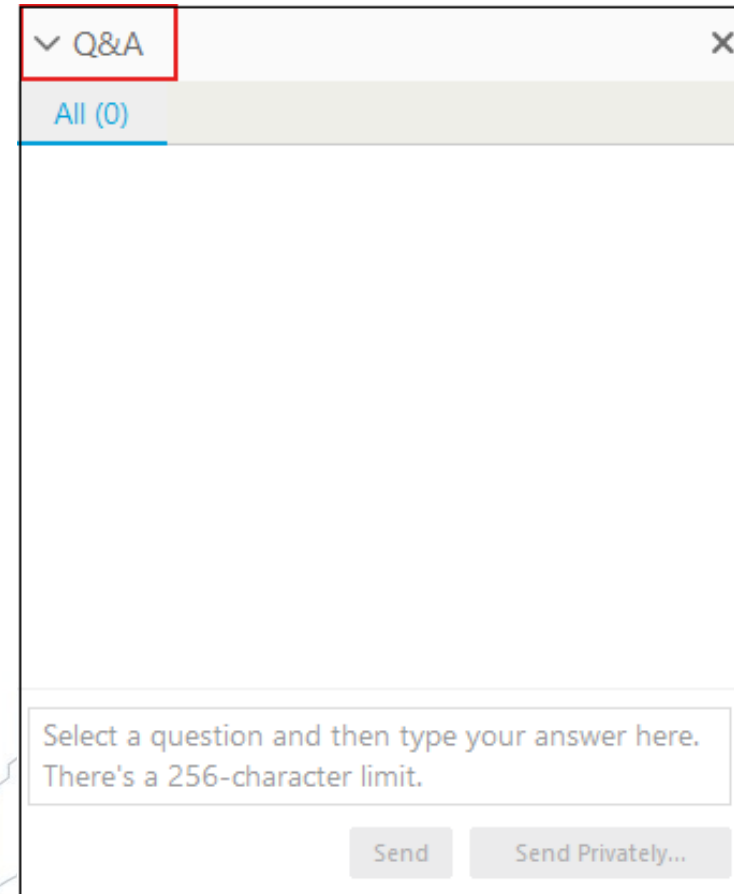**&**
Alissa Parrish

Webinar Instructions

- Webinar will last about 60 minutes

- Access to recorded version

- Participants in 'listen only' mode

- Submit content related questions in Q&A box on right side of screen

- For technical issues, request assistance through the Chat box

Webinar Instructions

- Questions?

- Please submit your content related questions via the Q&A box

- Send to Host, Presenter and Panelists

Webinar Instructions

- Please submit any technical issue related questions via the Chat box

- Send the message directly to the Host

- Host will work directly with you to resolve those issues

About NHSDC

The National Human Services Data Consortium (NHSDC) is an organization focused on developing effective leadership for the best use of information technology to manage human services. NHSDC provides information, assistance, peer to peer education and lifelong learning to its conference participants, website members and other interested parties in the articulation, planning, implementation and continuous operation of technology initiatives to collect, aggregate, analyze and present information regarding the provision of human services.

NHSDC holds two conferences every year that convene human services administrators primarily working in the homeless services data space together to learn best practices and share knowledge. The past 3 events have been put on with HUD as a co-sponsor. Learn more on our web site www.nhsdc.org.

After this virtual conference is over, NHSDC will be sending out a survey to learn about your experience. Please help us by signing up for emails and participating in the survey!

Learning Objectives

Explain HUD's vision and strategy for data and understand how data quality fits into that context

Discuss the core elements, definitions, and metrics of data quality

Understand the roles that the CoC, HMIS Lead, HMIS Vendors, and HMIS Participating Organizations/Users play in ensuring high data quality

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Session Overview

101 course (basics, beginnings, foundation)

Participant engagement will help guide the discussion (don't be shy)

Next steps
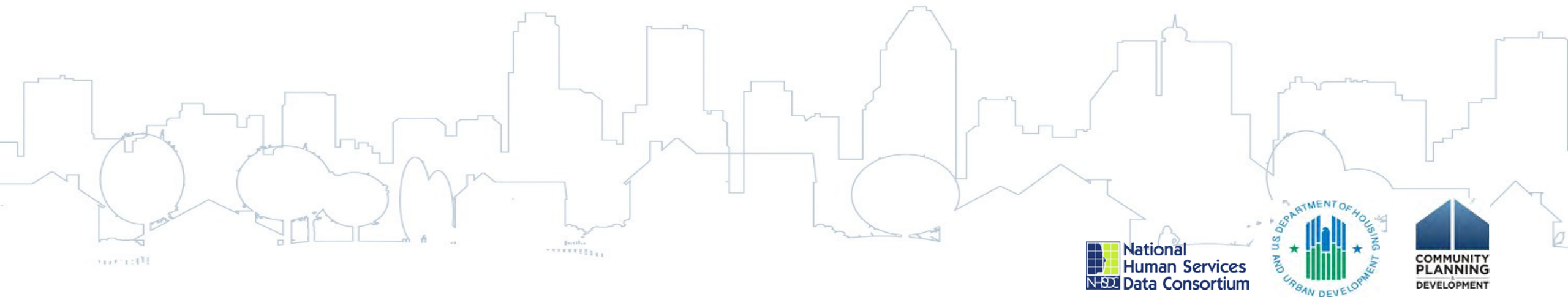
Who's With Us Today?

Options (select all that apply):
- CoC
- HMIS Lead/Administrator
- HMIS Vendor
- HMIS Participating Organization/End User
- Person with Lived Experience
- Government Entity
- Funder
- Other

Why Did You Choose This Session?

SNAPS Data Strategy and Data Quality

SNAPS — Data TA Strategy to Improve Data and Performance

SNAPS Data Strategy and Data Quality
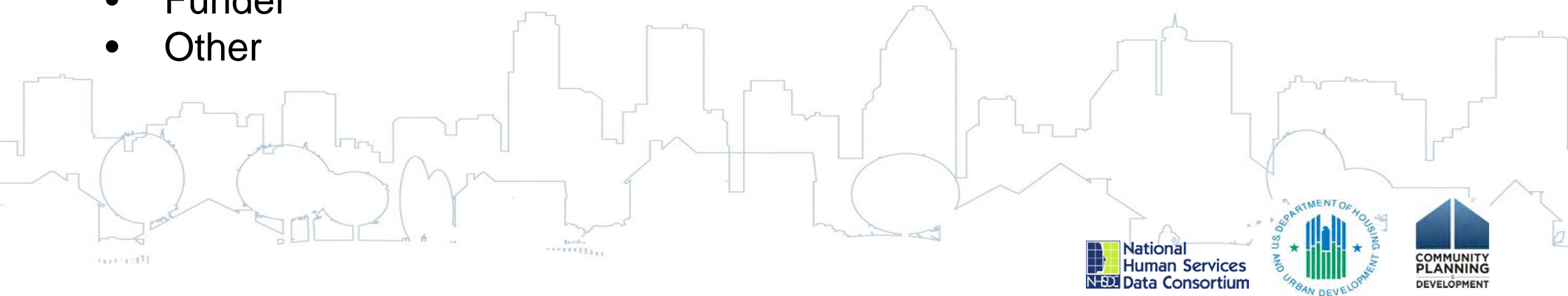
- SNAPS Strategy is intended to be aspirational and not used to monitor projects for compliance

- Focus on ensuring CoCs have data-driven local planning to work towards ending homelessness

- CoCs, HMIS Leads, and Organizations work together to review the strategy and set local goals and performance indicators

[SNAPS Data TA Strategy to Improve Data and Performance](#)

SNAPS Data Strategy and Data Quality

3 specific strategies and today, we will highlight Strategy #2, as it focuses on data quality

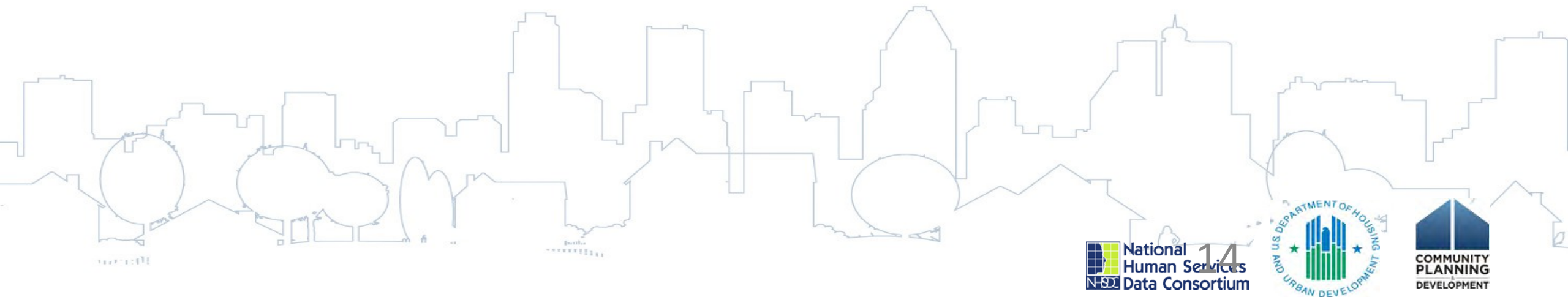## Data Systems collect Accurate, Comprehensive, and Timely Data

SNAPS Data Strategy and Data Quality

STRATEGY 2:
Data systems collect accurate, comprehensive and timely data

Characteristic: Bed Coverage across Continuum (funded and unfunded)		
Current status (or near-term)	**Majority of CoCs in 3-5 years**	**Advanced CoCs in 3-5 years**
▪ 100% required providers and less than 100% non-required providers contribute to HMIS	▪ 100% all homeless service providers contribute to HMIS	▪ 100% homeless providers and non-homeless service providers contribute to shared data environment

Characteristic: Quality data = Timely Accurate Comprehensive		
Current status (or near-term)	**Majority of CoCs in 3-5 years**	**Advanced CoCs in 3-5 years**
▪ 100% complete ▪ Less than 100% accurate ▪ No timeliness standard	▪ 100% accurate ▪ 100% complete ▪ Projects directly enter data within 2 hours for crisis response and project start/project exit ▪ PSH projects directly enter data within 24 hours	▪ 100% accurate ▪ Customized local data elements are limited to information needed to report, serve and house clients. ▪ 100% complete ▪ Timeliness meets Coordinated Entry placement and referral needs

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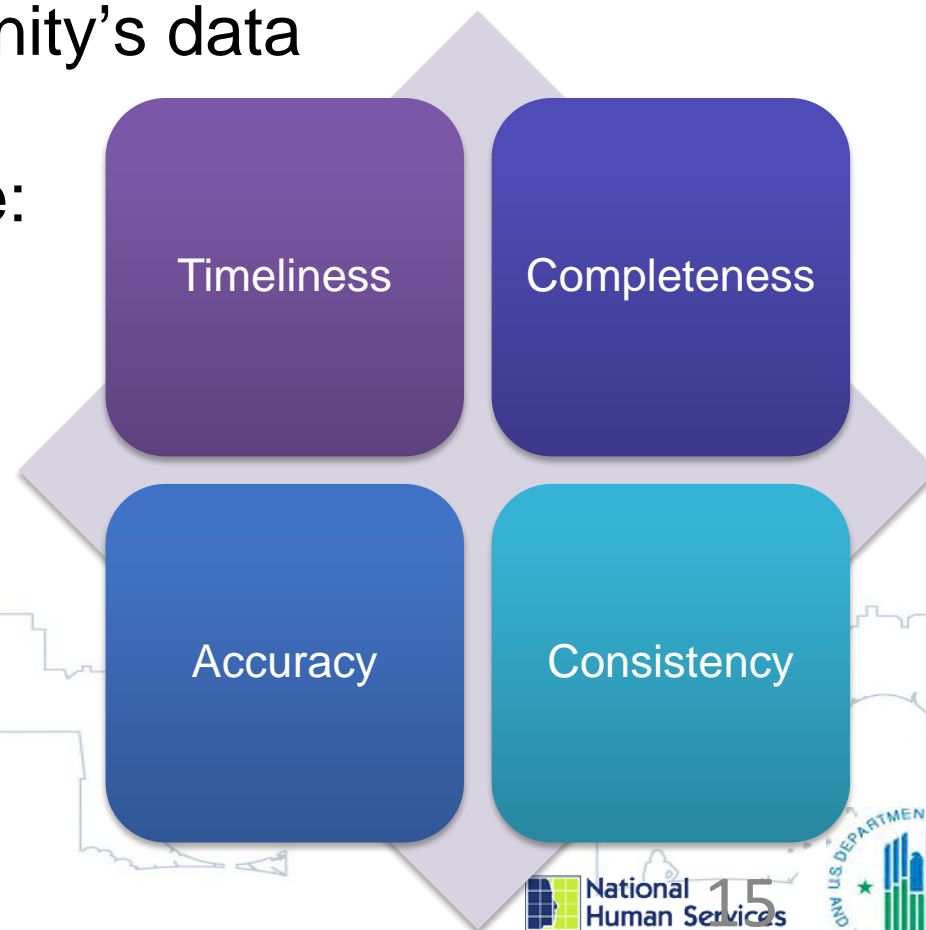COMMUNITY PLANNING & DEVELOPMENT

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What is Data Quality?

Data Quality Defined

Data Quality refers to the reliability and comprehensiveness of your community's data

Components of data quality include:
- Timeliness
- Completeness
- Accuracy
- Consistency

Timeliness	Completeness
Accuracy	Consistency

Requirements for Data Quality

2004 HMIS Data and Technical Standards

4.2.2. Data Quality (Baseline Requirement)

- "PPI collected by a CHO must be relevant to the purpose for which it is to be used. To the extent necessary for those purposes, PPI should be ***accurate***, ***complete*** and ***timely***."

2004 HMIS Data and Technical Standards

Data Quality Strengths

On which data quality component is your community doing well?

Options:
- Timeliness
- Completeness
- Accuracy
- Consistency

Why are you doing well?

Data Quality Limitations

With which data quality component is your community struggling?

Options:
- Timeliness
- Completeness
- Accuracy
- Consistency

Why are you struggling?

Timeliness

"The degree to which the data is collected and available when it is needed."

Timeliness	Completeness
Accuracy	Consistency

- Data Quality Framework report includes a timeliness measure

- Other reports can also be used to report on data timeliness

- Reviewing timeliness of data for all phases of a client's project activity helpful to understand where a lack of timeliness may be affecting a system's data quality

- Most communities measure timeliness of project enrollments but just as important to measure timeliness of updates and project exits

- It may also be useful to look at which parts of the system need to be timelier in data entry than others, based on how quickly the system needs to respond to the data once it's entered

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Completeness

"The degree to which all required data is known and documented. Coverage and utilization are both forms of completeness."

Timeliness

Completeness

Accuracy

Consistency
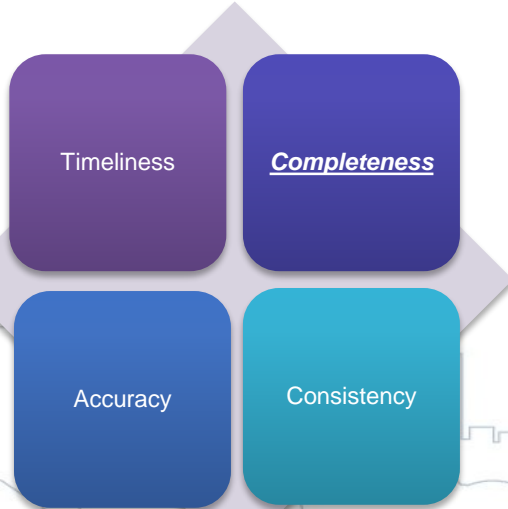
- Data completeness includes collecting and entering all required data elements into HMIS
  - Also includes bed coverage & utilization

- Reporting on whether all required data elements are entered into the system is generally easy to measure
  - It may also include setting baselines for an acceptable rate of responses that are "client doesn't know", "client refused", and "data not collected". At a minimum, a flag or alert for high % of these responses could help decide when to check in with projects to review data quality.

- A lack of bed coverage in HMIS can significantly impact understanding your homeless services system
  - Working with non-HMIS providers to understand why they don't use HMIS can help find ways to increase bed coverage

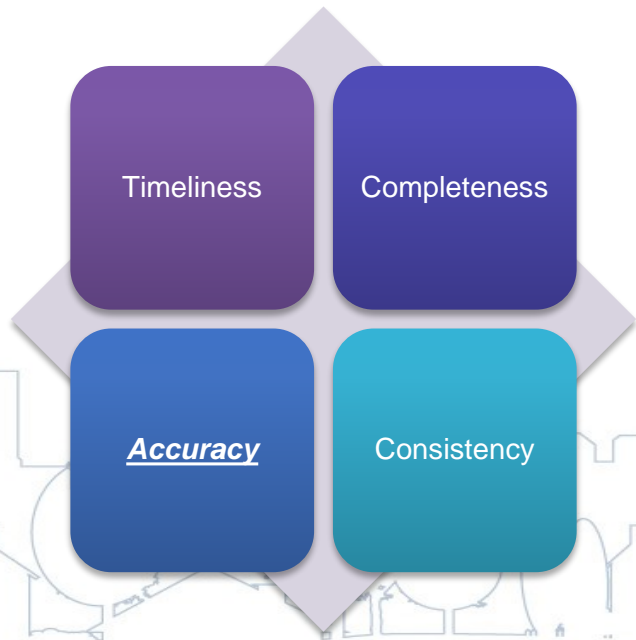National Human Services Data Consortium

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Accuracy

"The degree to which data reflects the real-world client or service."

Timeliness

Completeness

Accuracy

Consistency

Data accuracy can be difficult to measure because the system doesn't know what it doesn't know. There are some pieces that you can look at related to data accuracy:

- 1 and only 1 head of household for any given household
- Date of Birth = Project Start, especially for clients defined as head of household
- Clients under the age of 18 are not veterans
- Prior living situation, length of time, approximate date, # of times, and # of months (3.917 questions) congruency

Other pieces of data accuracy that are just as important but can be more difficult to report on include:

- All clients served are entered into the system
- All clients exited have been exited from the system
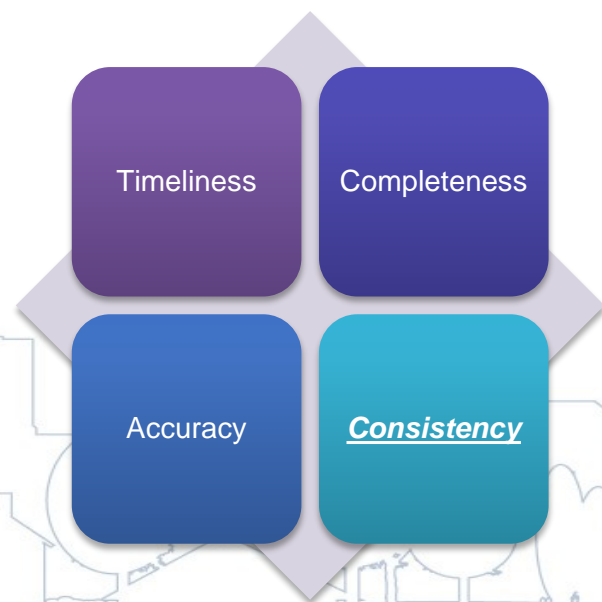 - Helps to look at utilization

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Consistency

"The degree to which the data is equivalent in the way it is collected and stored"

Timeliness

Completeness

Accuracy

Consistency

Consistency across the HMIS is not always easy to measure
- Do all organizations understand the data elements in the same way?
- Are all intake workers collecting the information from clients in a consistent manner?

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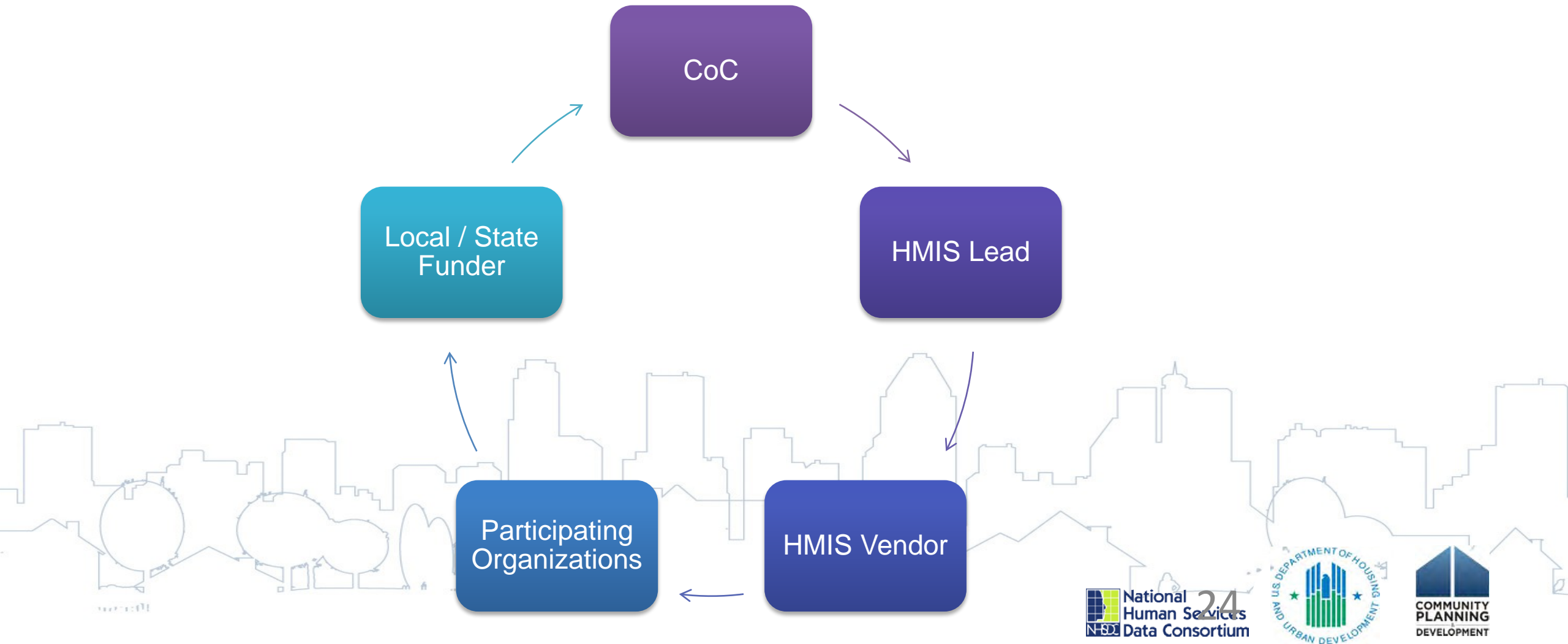
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Who's Involved?

Who's involved in the data quality process in your community?

Options (select all that apply):
- CoC
- HMIS Lead/Administrator
- HMIS Vendor
- HMIS Participating Organization/End User
- Funder
- Other

Stakeholders

CoC

- Celebrate successes and allow room for growth from all involved

- Make connections between data quality efforts and other CoC efforts

- Empower HMIS Lead to carry out a comprehensive DQMP

- Serve as the enforcement and encouragement of the DQMP
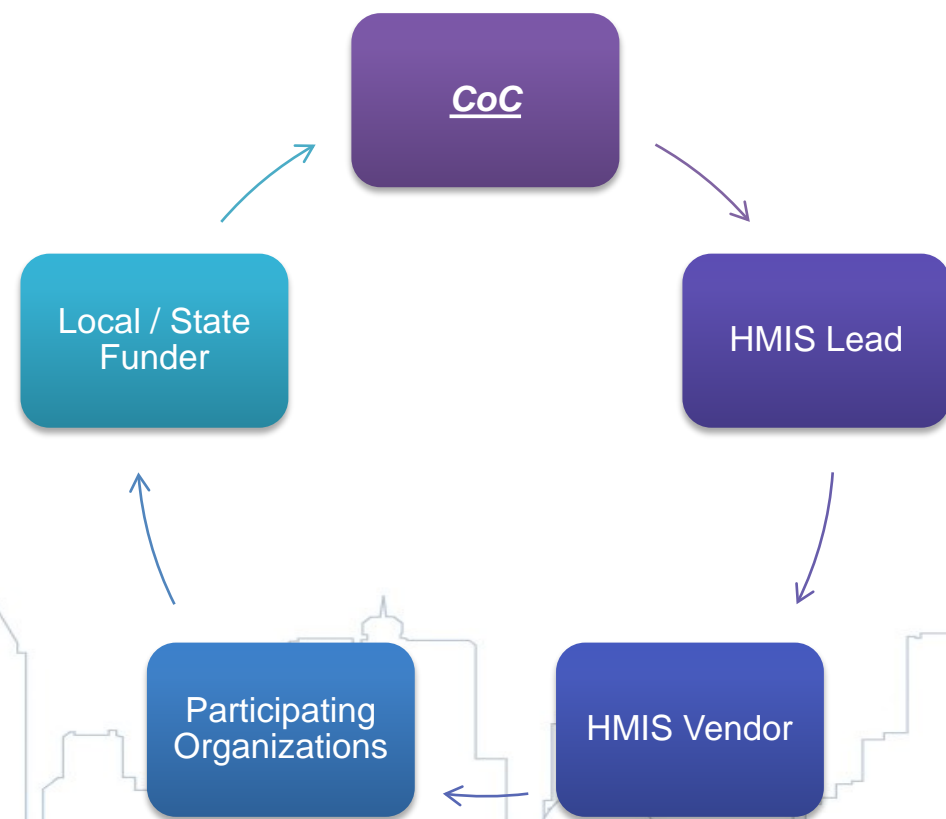
HMIS Lead

- Conducts monitoring of data quality in HMIS

- Works closely with participating organizations and end users to address data quality issues

- Collaborates with CoC to ensure consistent messaging and connections between data quality and other CoC work
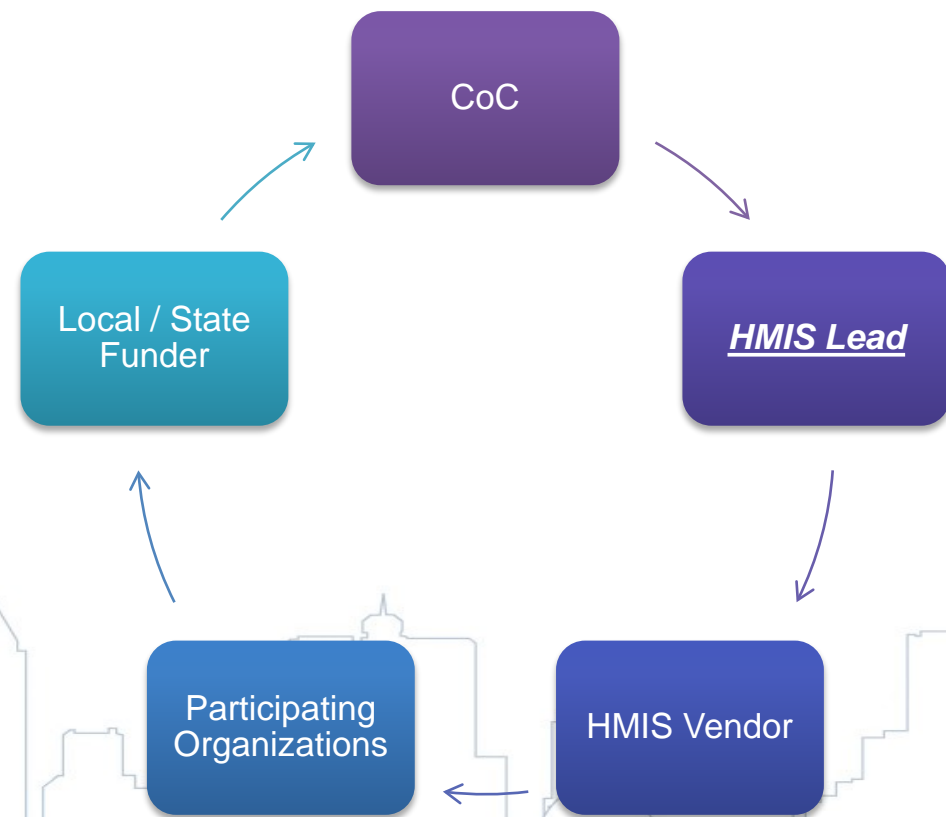
HMIS Vendor

- Ensure HMIS software is compliant with HUD data standards and reporting specifications

- Provide sufficient documentation for HMIS Leads and other partners for software-specific workflows, reports, and other system functionality important to understand

CoC

HMIS Lead

HMIS Vendor

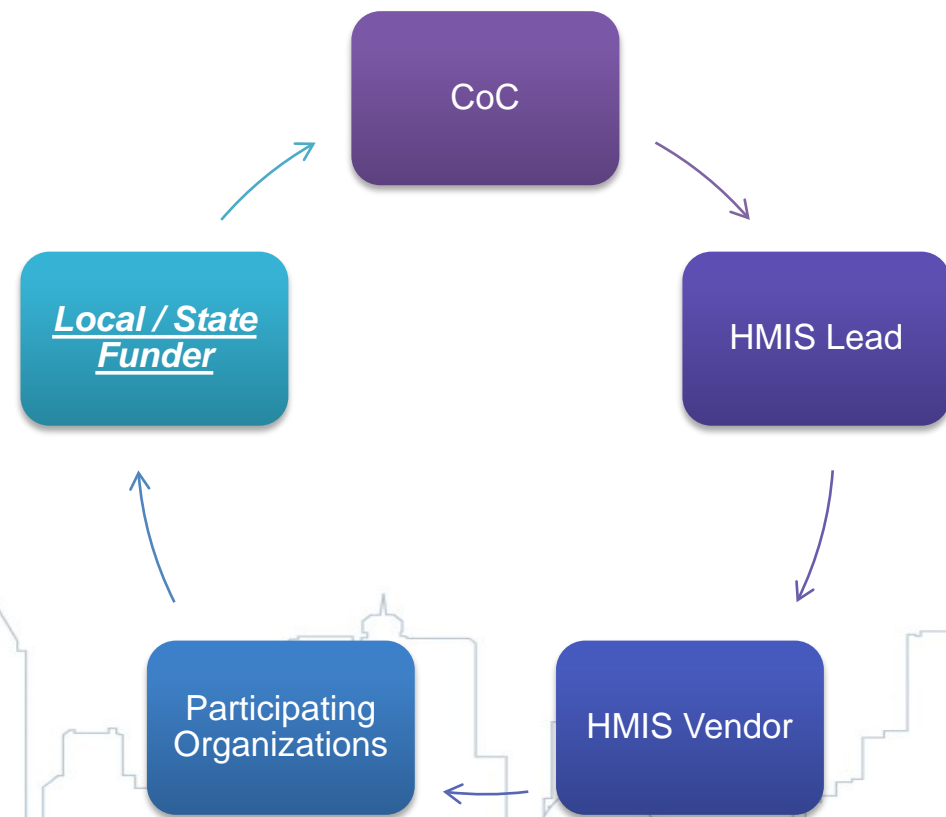Participating Organizations

Local / State Funder
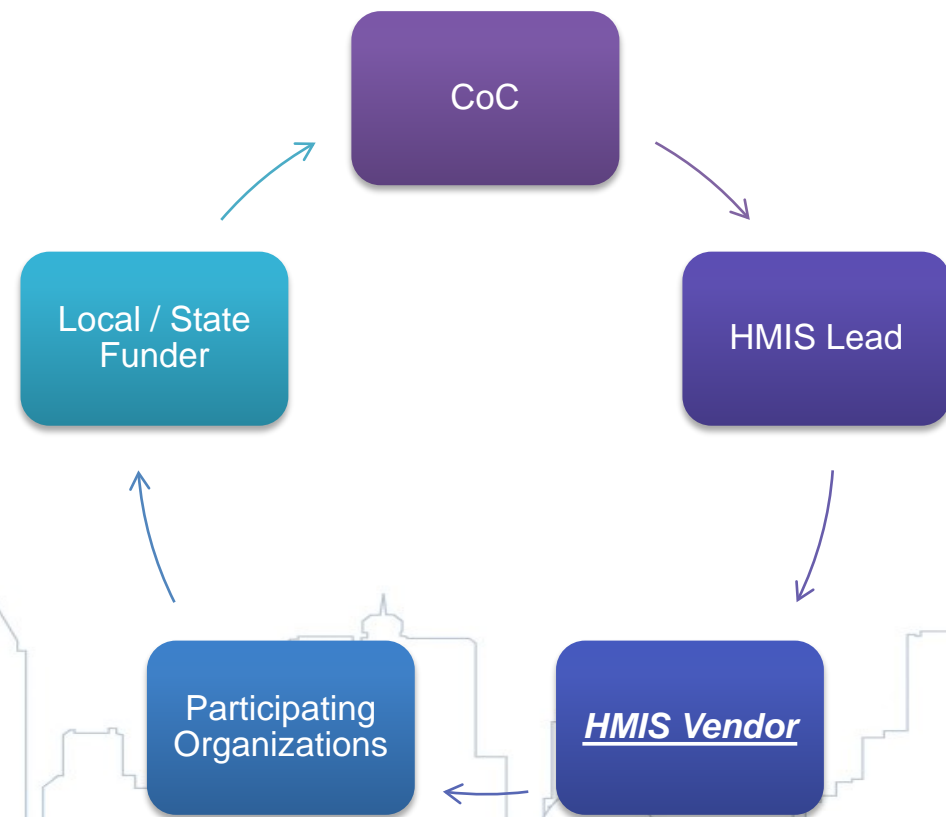
Participating Organizations

- Partner with and be responsive to the HMIS Lead and CoC to address data quality issues that arise

- If you don't understand something, ASK, don't GUESS

- Utilize resources that are made available (reports, HMIS help desk, visual guides, helper guides, training opportunities, etc.)

CoC

HMIS Lead

HMIS Vendor

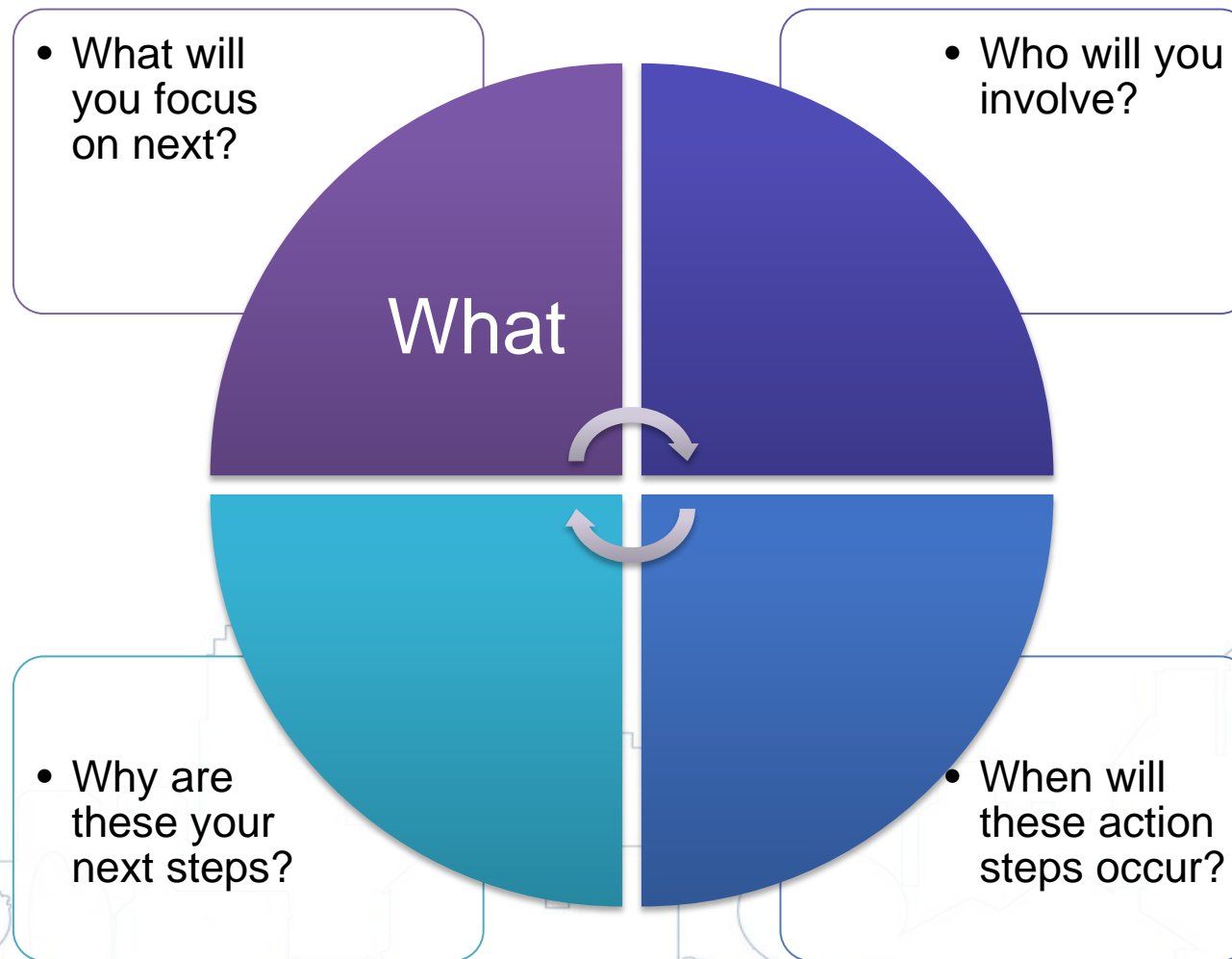*Participating Organizations*
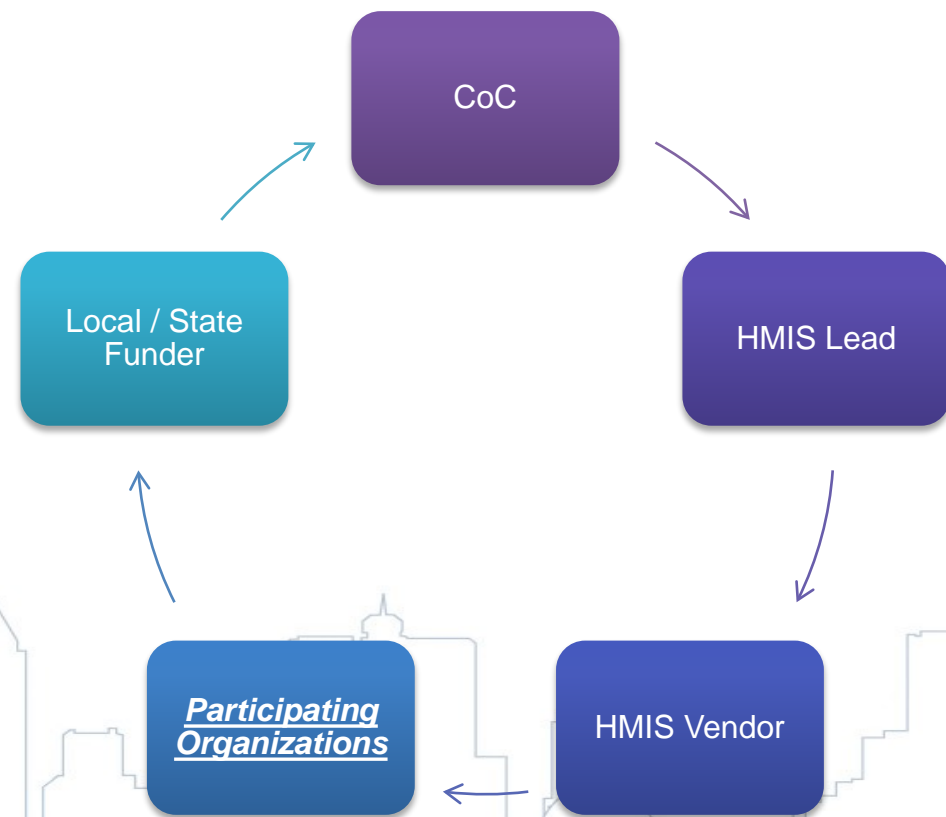
Local / State Funder

Local / State Funder

- Consider requiring the use of HMIS for grantees (both entering data into HMIS and reporting data out of HMIS)

- Partner with the CoC to understand community initiatives, goals, and how your funding can support those

CoC

HMIS Lead

Local / State Funder

HMIS Vendor

Participating Organizations

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Action Plan

- What will you focus on next?
- Who will you involve?
- Why are these your next steps?
- When will these action steps occur?

What

Resources

[CoC Data Quality Brief](#) (April 2017)

[Data Quality and Analysis for System Performance Improvement](#) (July 2017)

[Introductory Guide to Submitting LSA Data: Appendix LSA Data Quality Table Shells](#) (October 2018)

Thank you!

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