# Exchanging Health Related Social Needs Data with NC HealthConnex

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**Annual Conference 2024**

*Building the Future of Health Together*

HIMSS NORTH CAROLINA CHAPTER

# Presenters

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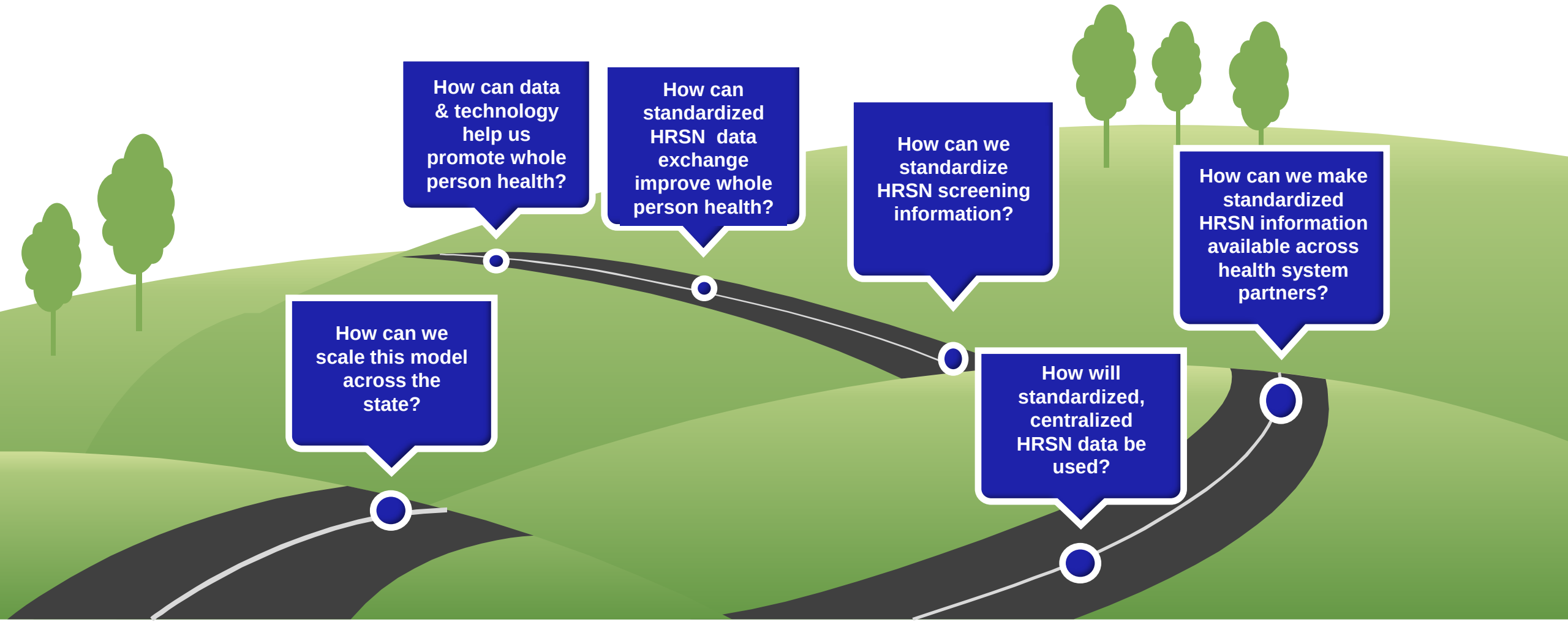
# Agenda

- The Need - Learning Objectives
- The summary of our Journey
- How North Carolina worked together to formulate our standards
- How did we apply the standards to aggregate data
- The Vision of the Future

# Learning Objectives

- There is a National and local need for collection of Health Related Social Needs (HRSN) in a standardized way.
- How teams in North Carolina have collaborated to standardize the collection and exchange of HRSN data.
- Future state of standardized data and how it can work for you

# Our Journey So Far…



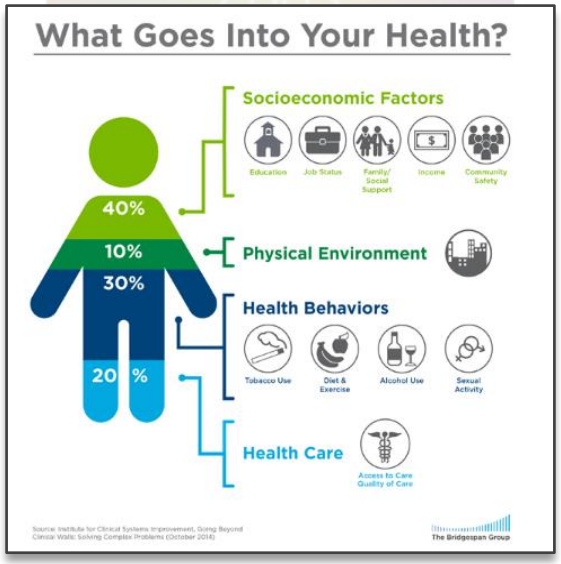
# How can data & technology help us promote whole person health?

**Whole person health –**

- Considering the interrelated needs of a person – both physical & behavioral, internal & external
- Focusing on non-medical drivers of health in addition to clinical drivers

**Health related social needs (HRSN – aka, SDOH) –**

- 80% of a person's health is **not** related to health care
- Addressing HRSN can reduce medical costs and negative health outcomes




https://www.bridgespan.org/insights/the-community-cure-for-health-care

TUESDAY, APRIL 2, 2024

**Healthy Opportunities Pilots Celebrate Two-Year Anniversary**

**Los proyectos piloto de Healthy Opportunities celebran su segundo aniversario — Versión en español abajo**

PRESS RELEASE — The North Carolina Department of Health and Human Services is celebrating two years of the Healthy Opportunities Pilots in North Carolina and announcing the intent to expand these life-saving services statewide. The Healthy Opportunities Pilots is a first-of-its-kind innovative program that is described as a "life changer" for thousands of North Carolina families. The program addresses people's social needs with services like food, housing, transportation and services related to interpersonal violence and toxic stress. Preliminary research also shows a significant savings in medical costs to the state of North Carolina from Healthy Opportunities Pilots participants.

https://www.ncdhhs.gov/news/press-releases/2024/04/02/healthy-opportunities-pilots-celebrate-two-year-anniversary

# How can data & technology help us promote whole person health?

**Different types of data & technology can help us address HRSN:**

- **Screening data** – to understand a person's HRSN
- **Referral technologies** – to refer people to community-based services
- **Integrated data** – to connect information from systems to design outreach, program enrollment, and referral efforts

**Key data & technology challenges:**

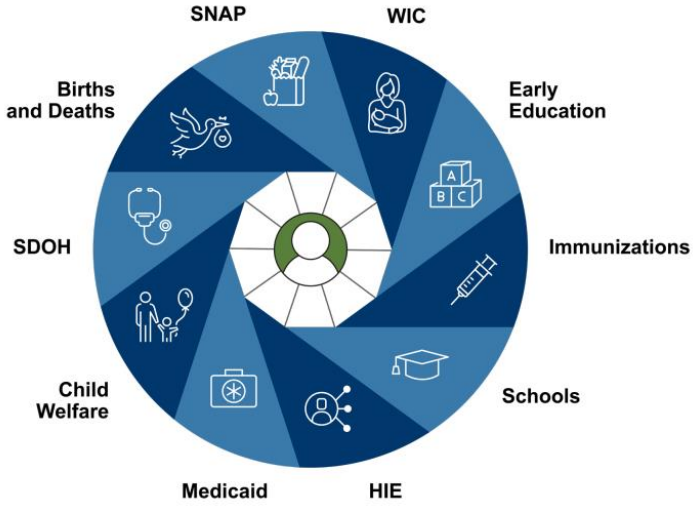
- Fragmented data systems
- Challenging & complex data collection, sharing, exchange processes
- Duplication of information collected places burden on individuals & health system partners

**Health Screening**

We believe everyone should have the opportunity for health. Some things like not having enough food or reliable transportation or a safe place to live can make it hard to be healthy. Please answer the following questions to help us better understand you and your current situation. We may not be able to find resources for all of your needs, but we will try and help as much as we can.

| | Yes | No |
|---|---|---|
| **Food** | | |
| 1. Within the past 12 months, did you worry that your food would run out before you got money to buy more? | | |
| 2. Within the past 12 months, did the food you bought just not last and you didn't have money to get more? | | |
| **Housing/ Utilities** | | |
| 3. Within the past 12 months, have you ever stayed: outside, in a car, in a tent, in an overnight shelter, or temporarily in someone else's home (i.e. couch-surfing)? | | |
| 4. Are you worried about losing your housing? | | |
| 5. Within the past 12 months, have you been unable to get utilities (heat, electricity) when it was really needed? | | |
| **Transportation** | | |
| 6. Within the past 12 months, has a lack of transportation kept you from medical appointments or from doing things needed for daily living? | | |
| **Interpersonal Safety** | | |
| 7. Do you feel physically or emotionally unsafe where you currently live? | | |
| 8. Within the past 12 months, have you been hit, slapped, kicked or otherwise physically hurt by anyone? | | |
| 9. Within the past 12 months, have you been humiliated or emotionally abused by anyone? | | |

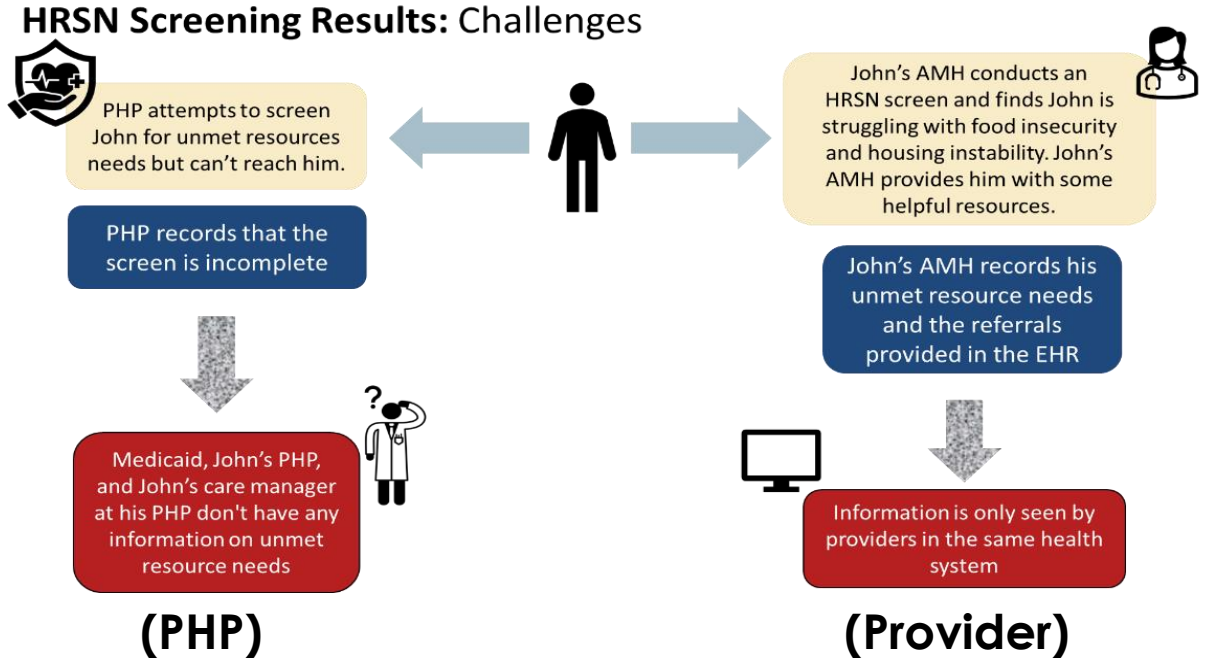
NCCARE360



# How can standardized HRSN data exchange improve whole person health?

Key challenges:

- Multiple screening tools for collecting HRSN data among North Carolina health system partners
- The lack of consistency in the wording of various HRSN questions
- The lack of a standard way of storing and exchanging HRSN data among North Carolina providers
- Differing data standards that can be used to collect, store, and transmit HRSN data
- Differing technology solutions and approaches to exchange and access HRSN data



# How can we standardize HRSN screening information?

Variability between entities on common HRSN domain questions

| Variation Types | SDOH Domain | High-level Question | Version 1 of Question | Version 2 of Question |
|---|---|---|---|---|
| **1. No Variation** Questions Are Exactly The Same | **Food** | **Worry about food** | Within the past 12 months, did you worry that your food would run out before you got money to buy more? | Within the past 12 months, did you worry that your food would run out before you got money to buy more? |
| **2. Moderate Variation** Meanings Are Essentially The Same | **Housing** | **Been homeless** | Within the past 12 months, have you ever stayed: outside, in a car, in a tent, in an overnight shelter, or temporarily in someone else's home (i.e., couch-surfing)? | In the last 12 months, was there a time when you did not have a steady place to sleep or slept in a shelter (including now)? |
| **3. Significant Variation** Questions Address Different Topics | **Transportation** | **Lack transport** | Within the past 12 months, has a lack of transportation kept you from medical appointments? | In the past 12 months, have you been unable to get somewhere because you didn't have a ride? |

Variability between provider and default EHR HRSN questions

| HRSN Domain | High-level Question | Applicable DHHS HRSN Question | Hospital 1 Question | Hospital 2 Question | EHR's Default Question |
|---|---|---|---|---|---|
| **Housing** | **Been homeless** | Within the past 12 months, have you ever stayed: outside, in a car, in a tent, in an overnight shelter, or temporarily in someone else's home (i.e. couch-surfing)? | In the last 12 months, was there a time when you did not have a steady place to sleep or slept in a shelter (including now)? | Within the past 12 months, have you ever stayed outside, in a car, in a tent, in an overnight shelter, or temporarily in someone else's home (i.e. couch-surfing)? | In the last 12 months, was there a time when you did not have a steady place to sleep or slept in a shelter (including now)? |
| **Utilities** | **No utilities** | Within the past 12 months, have you been unable to get utilities (heat, electricity) when it was really needed? | Within the past 12 months, have you been unable to get utilities (heat, electricity) when it was really needed? | No match | In the past 12 months has the electric, gas, oil, or water company threatened to shut off services in your home? |

# How can we standardize HRSN screening information?

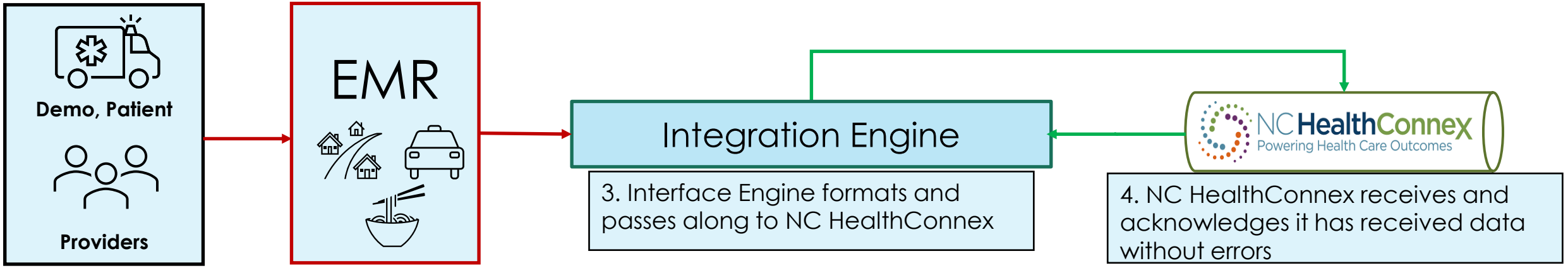
## Questions and Answers

The first version of the SDOH program include 6 questions, the question LOINC code, each question's available answers and the answer LOINC codes. It's expected that each transmission of questions and answers to NC HealthConnex will include all 6 questions and their answers. Participants can choose to send either the LOINC code and corresponding answer Codes, or the Alt LOINC Code and corresponding answer codes.

| No | Domain | Short Question | DHHS Question | LOINC Code | LOINC Question | Answers | Alt LOINC Code | Alt LOINC Question | Answers |
|---|---|---|---|---|---|---|---|---|---|
| 1 | Food | Worry food | Within the past 12 months, did you worry that your food would run out before you got money to buy more? | 95400-8 | Within the past 12Mo we worried whether our food would run out before we got money to buy more | LA28397-0 Often true<br>LA6729-3 Sometimes true<br>LA28398-8 Never true<br>LA15775-2 Don't know/refused | 88122-7 | Within the past 12 months we worried whether our food would run out before we got money to buy more | LA28397-0 Often true<br>LA6729-3 Sometimes true<br>LA28398-8 Never true<br>LA30968-4 DK or Refused |
| 2 | Food | Run out food | Within the past 12 months, did the food you bought just not last and you didn't have money to get more? | 95399-2 | Within the past 12Mo the food we bought just didn't last and we didn't have money to get more | LA28397-0 Often true<br>LA6729-3 Sometimes true<br>LA28398-8 Never true<br>LA15775-2 Don't know/refused | 88123-5 | Within the past 12Mo the food we bought just didn't last and we didn't have money to get more | LA28397-0 Often true<br>LA6729-3 Sometimes true<br>LA28398-8 Never true<br>LA30968-4 DK or Refused |
| 3 | Housing | Worry homeless | Are you worried about losing your housing? | 93033-9 | Are you worried about losing your housing | LA33-6 Yes<br>LA32-8 No<br>LA30122-8 I choose not to answer this question | 98976-4 | Behind on rent or mortgage in past 12 months | LA33-6 Yes<br>LA32-8 No |
| 4 | Housing | Been homeless | Within the past 12 months, have you ever stayed: outside, in a car, in a tent, in an overnight shelter, or temporarily in someone else's | 98978-0 | Homeless in past 12Mo | LA33-6 Yes<br>LA32-8 No | None | None | |
| | | | home (i.e. couch-surfing)? | | | | | | |
| 5 | Utilities | No utilities | Within the past 12 months, have you been unable to get utilities (heat, electricity) when it was really needed? | 96779-4 | Has the electric, gas, oil, or water company threatened to shut off services in your home in past 12 months | LA33-6 Yes<br>LA32-8 No | 103985-8 | Do you have utilities insecurity | LA33-6 Yes<br>LA32-8 No |
| 6 | Transportation | Lack transport | Within the past 12 months, has a lack of transportation kept you from medical appointments or from doing things needed for daily living? | 93030-5 | Has lack of transportation kept you from medical appointments | LA33-6 Yes<br>LA32-8 No | 99594-4 | Delayed medical care due to distance or lack of transportation | LA33-6 Yes<br>LA32-8 No |

# How can we make standardized HRSN information available across health system partners?

# Hospital Visit Data Flow

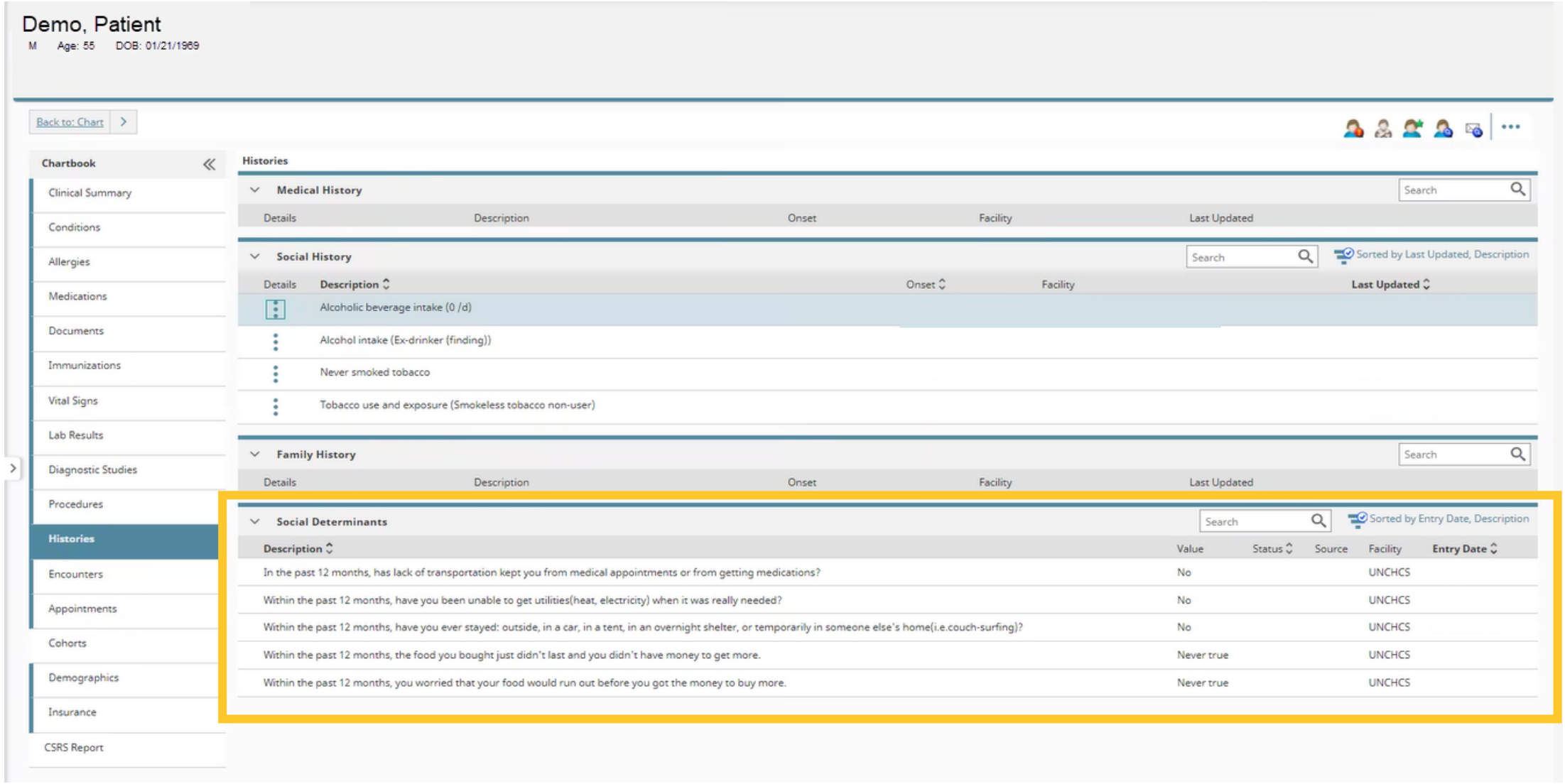


# HL7 ZPV Question/Answer Field Definitions

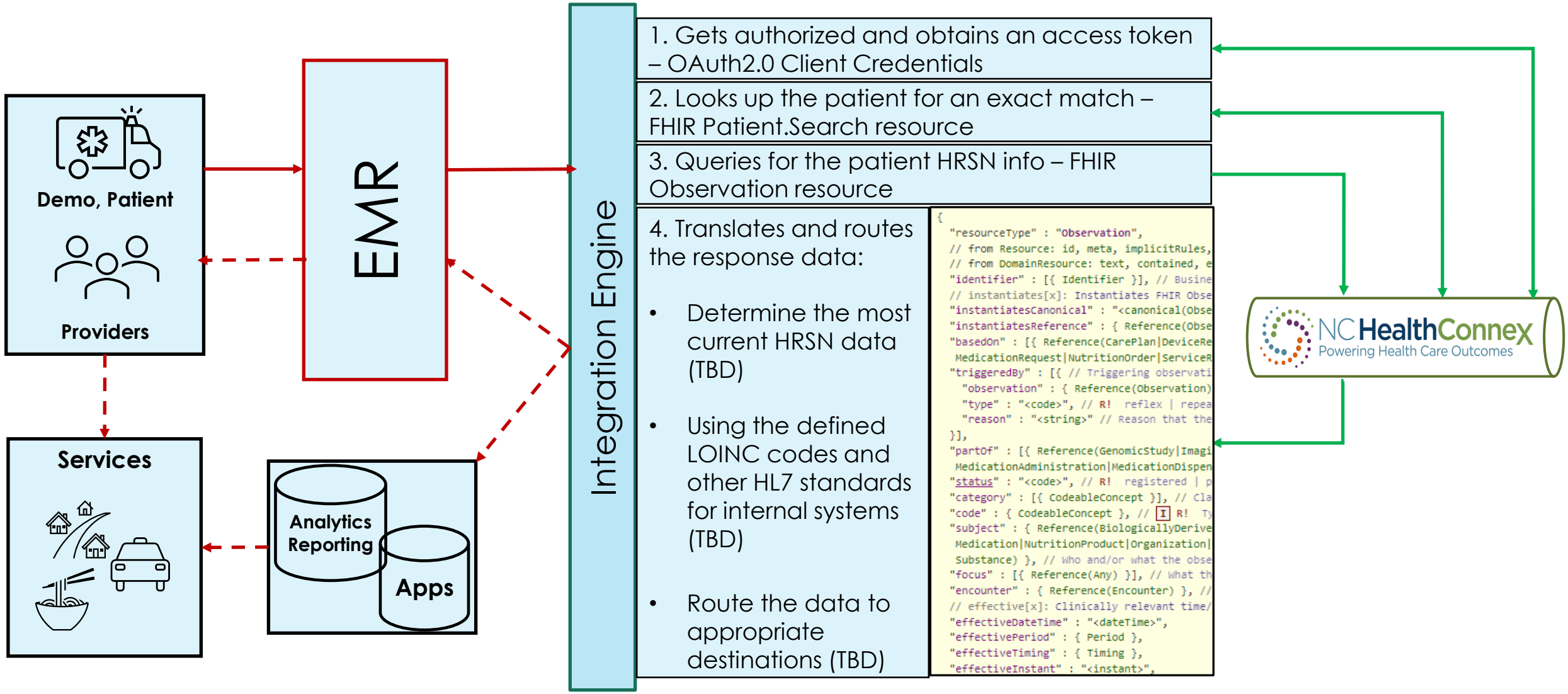
| Sequence | Name | Value |
|---|---|---|
| 1 | Record Sequence | 1 |
| 2 | Use Case Identifier | SDOH |
| 3.1 | Question Code | 99594-4 |
| 3.2 | Question Code System | LOINC |
| 3.3 | Question Text (as presented to patient) | Within the past 12 months, has a lack of transportation kept you from medical appointments? |
| 3.4 | Answer Code | LA32-8 |
| 3.5 | Answer Code System | LOINC |
| 3.6 | Answer Text (as presented to patient) | No |
| 3.7 | Answer Timestamp | 20240818081257 |

ZPV|1|SDOH|99594-4^LOINC^In the past 12 months, has lack of transportation kept you from medical appointments or from getting medications?^LA32-8^LOINC^No^20240819081257|

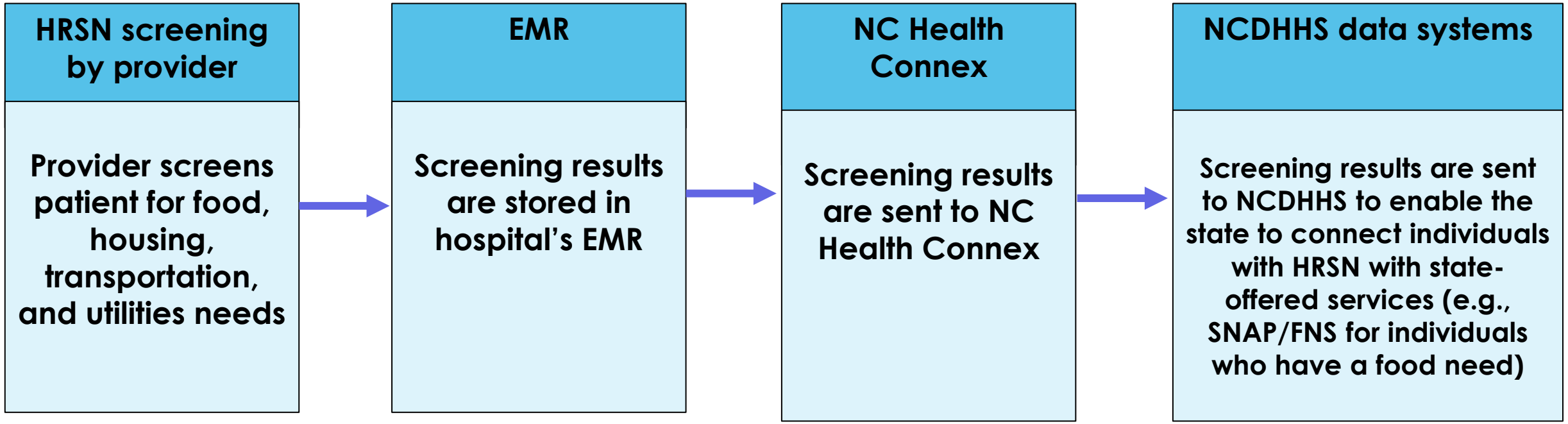
# How will standardized, centralized HRSN data be used?



# Future State at UNC Health



# Future State – State Perspective



# Questions

# Thank You

- Hayley Young - Acting Chief Data Officer NCDHHS
  - Email: Hayley.Young@dhhs.nc.gov
- Jenell Stewart - Assistant Director, Health Analytics and External Services
  - Email: Jenell.Stewart@nc.gov
- Paul Thomas - Analytics & Interop Senior Developer UNC Health
  - Email: Paul.Thomas@unchealth.unc.edu
- Han Nguyen - Analytics & Interop Solutions Developer UNC Health
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