Developing the Language and Tools to Address Food Insecurity

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Disclosures:

- Who I am:
  - Rural Family Nurse Practitioner
  - Regional Clinical Representative for Vermont's ACO
  - Pediatric Faculty at UVM's Larner College of Medicine
  - Doctoral Student at the Yale School of Nursing
  - Terminologist and coding nerd
- *What I am not: a certified coder*
- Funders/Friends: **Children's HealthWatch (Stephanie and Richard,) FRAC (Heather and Alex,)** Root Cause Coalition, SIREN, Jonas Philanthropies (YSN scholarship)

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Contents:

- Background
- Terminology Gaps:
  - Diagnostic Language- ICD-10-CM
  - Intervention Language (SNOMED)
- Diagnostic Criteria/Diagnostic Considerations

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Background:

- As care for social needs has advanced in the medical space there is an increasing demand to expand the terminology (language) for social needs
  - To better care for patients with social needs and the populations they live within
  - Share care with clinical and community partners
  - Study the effects of our interventions
  - Demonstrate/study social needs and their effect on health outcomes
  - Allocate resources toward social risk within value based care

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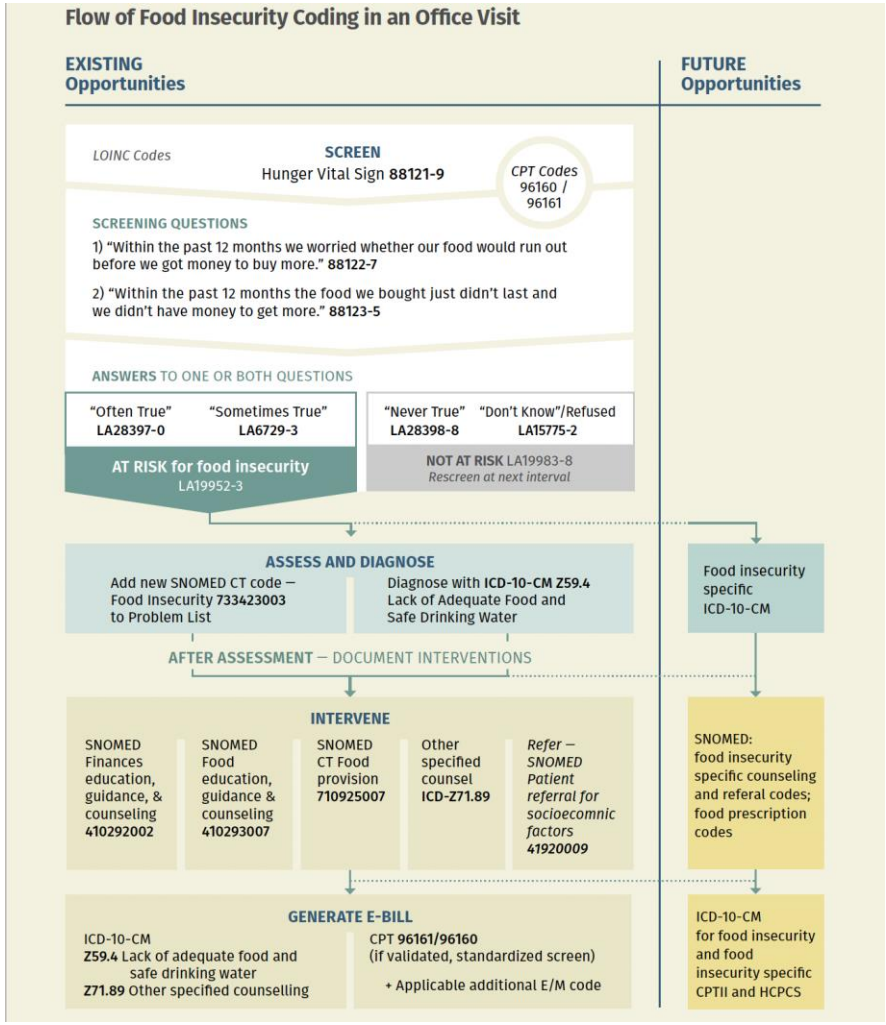
An Overview of Food Insecurity Coding in Healthcare Settings: Existing and Emerging Opportunities (DeSilvey et al, 2018)

- 2017-2018
- FRAC, Children's Healthwatch, SIREN
- Outcomes:
  - *LOINC build for the HVS™
  - Expanded CPT coverage for validated food insecurity screening
    - 96160 and 96161
  - SNOMED (problem list) code for food insecurity
  - Gap awareness…



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Improving the Interoperability of Social Determinants of Health Data in Electronic Health Records

- November 9th, 2017
- SIREN, CDC, Health Leads, LOINC, CMMI, ONC, SNOMED, Kaiser, OCHIN, Children's Health Watch, RWJF, (and many more)
- Outcomes:
  - In some cases there are too many codes
  - In some cases there are not enough
  - It is difficult to build codes when we are still refining concepts
  - Of the concepts, food insecurity is the most mature (common conceptual and operational definition)

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White Paper/ Compendium

- “Documenting Social Determinant of Health-Related Clinical Activities with Standardized Clinical Vocabularies” published 12/2018 in JAMIA Open
- “Compendium of Medical Terminology Codes for Social Risk Factors” https://sirenetwork.ucsf.edu/tools-resources/mmi/compendium-medical-terminology-codes-social-risk-factors
- All with Abigail Arons, Caroline Fichtenberg, and Laura Gottlieb of SIREN

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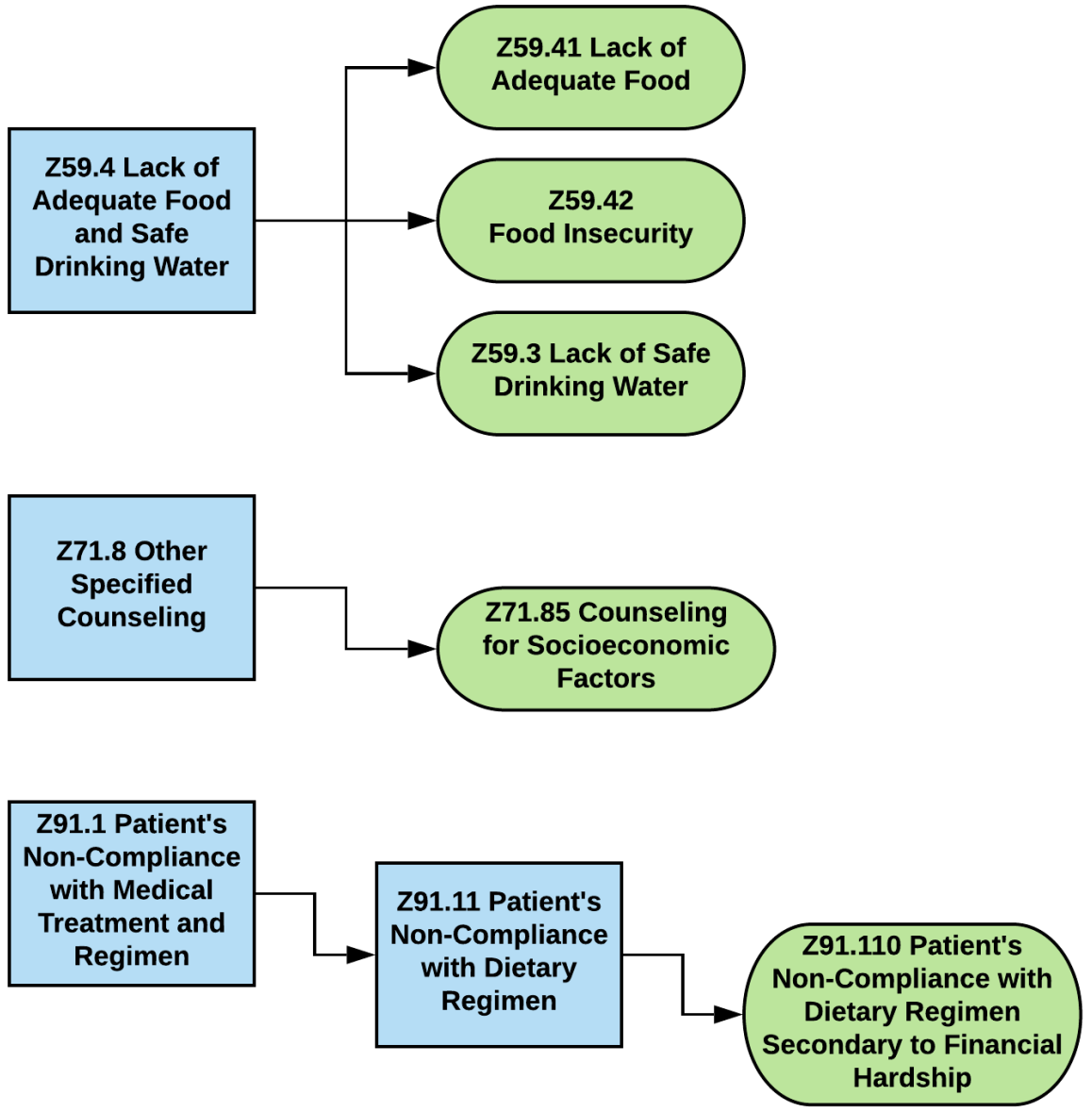
Food Insecurity Diagnostic Terminology Gaps

- Current State: “Z59.4 Lack of Adequate Food and Safe Drinking Water”
  - Groups lack of food and water resources together thus discretely identifying neither
  - Does not contain the economic drivers of FI
- Diagnostic Terminology- ICD-10-CM
  - The language of diagnoses and causation in claims:
    - Billing, defining causation for orders and referrals, claims based research, population health analysis, and risk assessment
  - International- WHO
  - US- CDC > NCHS

ICD-10-CM Proposal

- Build specific codes for lack of food, food insecurity, and lack of water
- Build new code for counseling for socioeconomic factors
- Build new code for financial hardships effect on prescribed dietary regimens



Akin to Z91.120 Patient's Intentional Underdosing of Medication Due To Financial Hardship

Diagnostic Language Build- ICD-10-CM Application

- Sponsored by Vermont BCBS (CHW and I worked with them on CPT expansion)
- Application crafted in consult with coding experts from AHIMA (Thank you Kathy Giannangelo)
- Application heard at the 3/6 ICD-10-CM Coordination and Maintenance Committee Meeting
  - https://www.cdc.gov/nchs/data/icd/Topic-packet-March-2019-Part-2Vs3.pdf
- Now, 2 month comment period
  - Email comments directly to: nchsicd10CM@cdc.gov
- **NCHS is cautious. They want to hear that…**
  - **The codes are necessary**
  - **And that *clinicians* will use them**

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Food Insecurity Intervention Language Gaps

- ”How can we document FI resources?”
  - To document orders to address FI in clinical settings
  - To document the resources that protect low-income families and individuals from FI
  - To study the effect of our interventions across settings
- Working with Academy of Nutrition and Dietetics and FRAC
- SNOMED (Systematized Nomenclature of Medicine)
  - Language of the problem list, past medical and social history, non-pharmacologic orders, environment, etc… (vast)
  - Perfect for interventions not captured by alternate terminology sets (non-pharm)
  - SNOMED International/NLM

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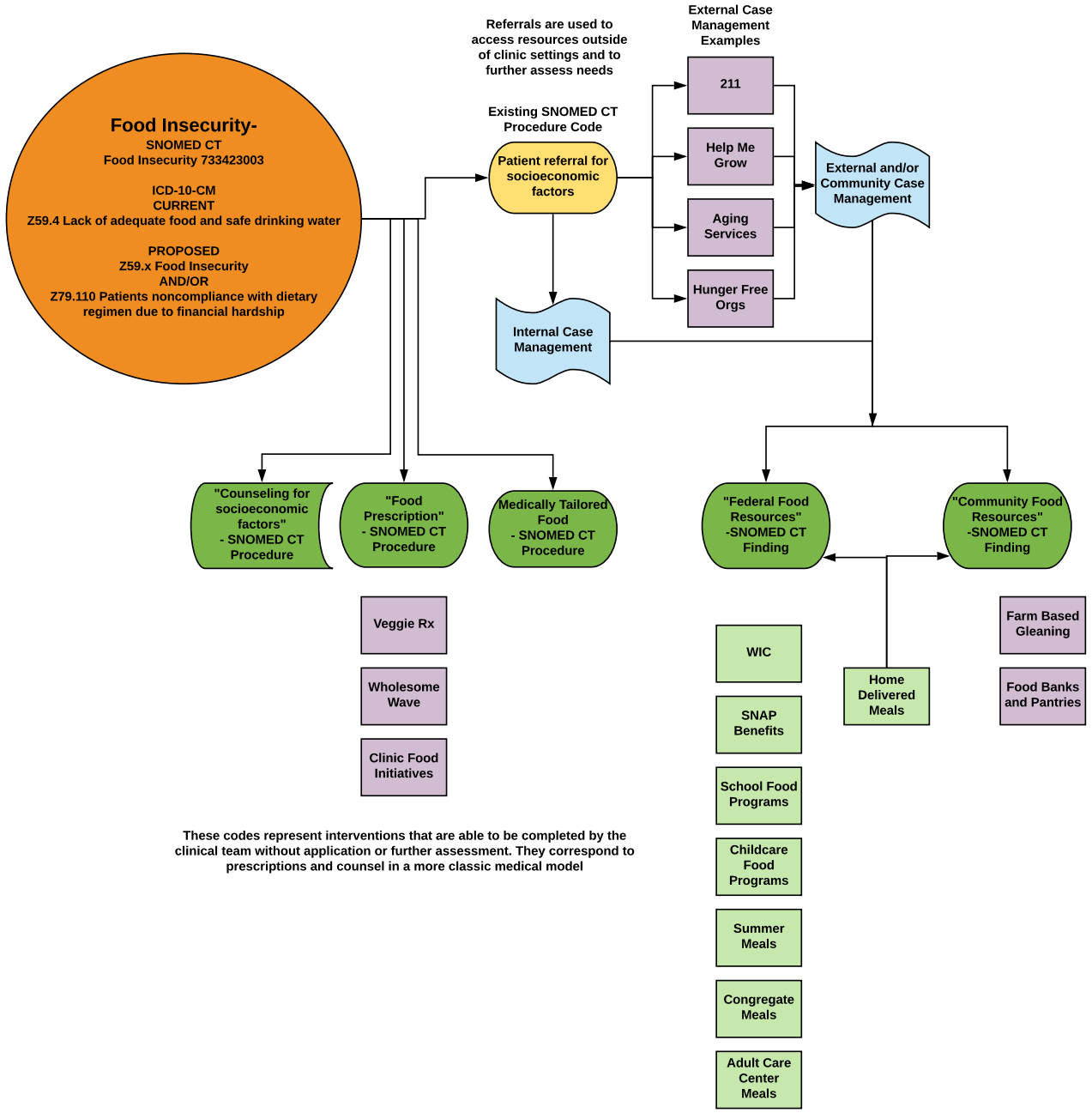
Intervention Language Build: SNOMED

- Aim is to build priority terms
  - Food Prescription
  - WIC
  - SNAP
  - FDIPR
  - Home-Delivered Meals
  - Congregate Meals
  - Medically Tailored Meals
  - National School Lunch Program
  - Summer Meals
- And if this seems too far afield – know there is a SNOMED term for “taco”



Food Insecurity Intervention Terminology Timeline

- Working with the Academy of Nutrition and Dietetics now
  - Deep knowledge and experience in SNOMED terminology build
- Plan is to gather first priority terms and submit SNOMED application by summer
- Curious about your own thoughts?
  - https://www.surveymonkey.com/r/FIIntervention

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Segue to ontology
(thank you Alissa Wassung of GLWD)

- We have discussed (what I call) the carpentry of the work…
  - Build these things and use them

- Now we are going to transition a bit to discuss the more philosophical branch of this work…

FI Diagnostic Considerations

- Current FI assessment in clinical practice relies principally upon the use of screeners - validated and non-validated
  - US 6 and 18-time food security modules (USDA, 2017)
  - Hunger Vital Sign™ (Hager et al, 2010)
    - Imbedded into the AHC tool, Everyone Tool, AAP toolkit
  - PRAPARE (NACH, 2017)
  - SEEK Parent Questionnaire (Dubowitz, 2014)
  - We Care (Garg et al, 2007)
  - And many more! (I did not include screens that only assess financial strain)

FI Diagnostic Considerations

- There are limitations to this though
  - What if a setting does not have an employed screener? How can you ascertain food insecurity based on reported history alone?
    - “We have been having a really hard time lately. We cannot afford food because rent has to get paid and heat cost have been crazy this year because of the cold. The kids luckily eat good food at school. I give them what I can. But, most days I don’t have dinner.”
  - Lack of validation can create concerns about equivalence
  - Conceptual limitations even in the presence of validation
    - A positive result of the Hunger Vital Sign™, is equivalent to “marginal food security” according to the 18-item screen
      - = ”risk for food insecurity”
      - Limits in assessing FI effect on food quantity, variety, and quality (Hager et al, 2010)

Diagnostic Process

- In practice clinicians use diagnostic criteria to ground all of these possible concerns
- Diagnostic criteria are sets of discrete or verbal data that define the core concepts inherent in a condition
- Clinicians weigh the data in patient interview, vital signs, labs and orders, against these criteria to come up with a diagnosis that is equivalent across settings and "independent of the observer"(NAM, 2015)
- Examples:
  - Discrete- Diabetes: FPG ≧ 126mg/dl and/or A1C ≧ %6.5 and/or RPG ≧ 200mg/dl and/or 2-h PG ≧ 200mg/dl (American Diabetes Association, 2019)
  - History Based- IBS: Recurrent abdominal pain or discomfort at least 3 days/month in the last 3 months associated with two or more of the following: Improvement with defecation; Onset associated with a change in frequency of stool; Onset associated with a change in form (appearance) of stool
    - Criterion fulfilled for the last 3 months with symptom onset at least 6 months prior to diagnosis (Mostafa, 2008)

What would a diagnostic criteria for food insecurity look like?

What considerations do we have to bear in mind?

First Steps: Before Criteria, Come Considerations

- Joint work with the USDA ERS, the AND, FRAC, CHW, FI researchers, any and all helpers welcome…
- Considerations
  - **Critical Concepts:** Lack of adequate food driven by low economic resources
    - In many ways the easiest part
  - **Time:**
    - Does the variable of time change when you change the delivery of the screener?
      - The food security module was crafted as a December calendar year look back
      - Is 12 months the appropriate duration?
      - Does it change when being administered regularly in clinical settings?
    - Do we even need a time element?
      - Does it change when you consider we screen to look forward and address instead of look backward and measure? (C. Greggory, USDA)
  - **Acuity, chronicity and cycles**
  - **Severity and Depth**

Diagnostic Considerations

- The hope is that over the next few months we will at least flesh out the considerations fully…
  - Are there others?
- Then we hope to publish them to inspire further conversation
- Eventually, a gathering of minds would be in order to develop a criteria from these considerations by consensus

Thank you!

(special thanks to my friends and colleagues who keep me thinking deeper and better about all of this daily)

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