EXPLORING SDOH TOOLS AND IMPLICATIONS FOR CARE PLANNING

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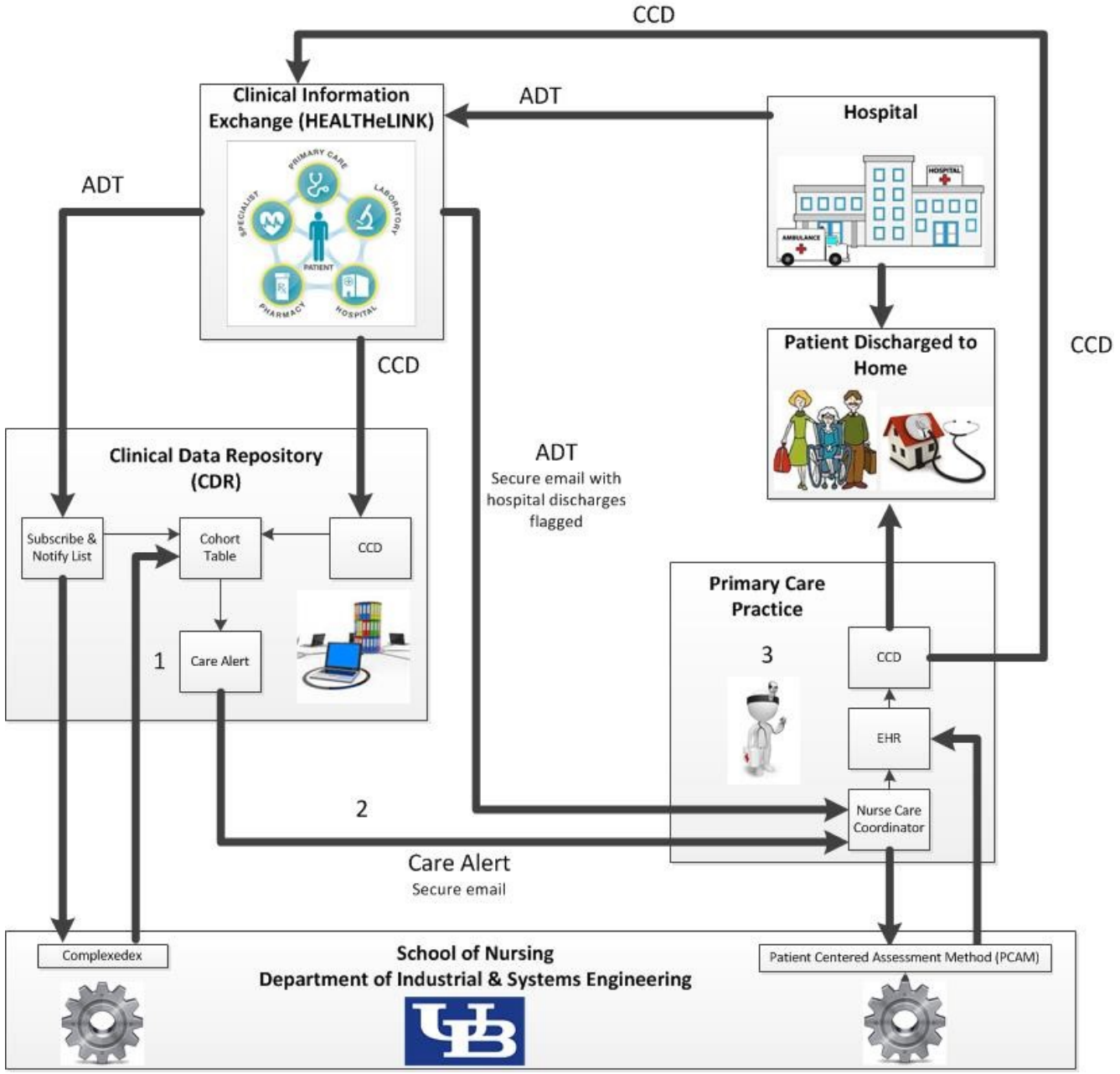
Steps to Incorporate Social Determinants of Health into a Comprehensive Shared Care Plan

Based on work in the AHRQ funded Coordinating Transitions project expanding the role of the RN Care Coordinator in primary care

Coordinating Transitions Intervention

1. Automated electronic notification of discharge to nurse care coordinator in primary care using Care Transition Alerts for cohort with pre-existing chronic disease
2. Care coordinator telephone outreaching incorporating PCAM assessment
3. Integrating social determinants into care plan that is shared with interprofessional team across settings

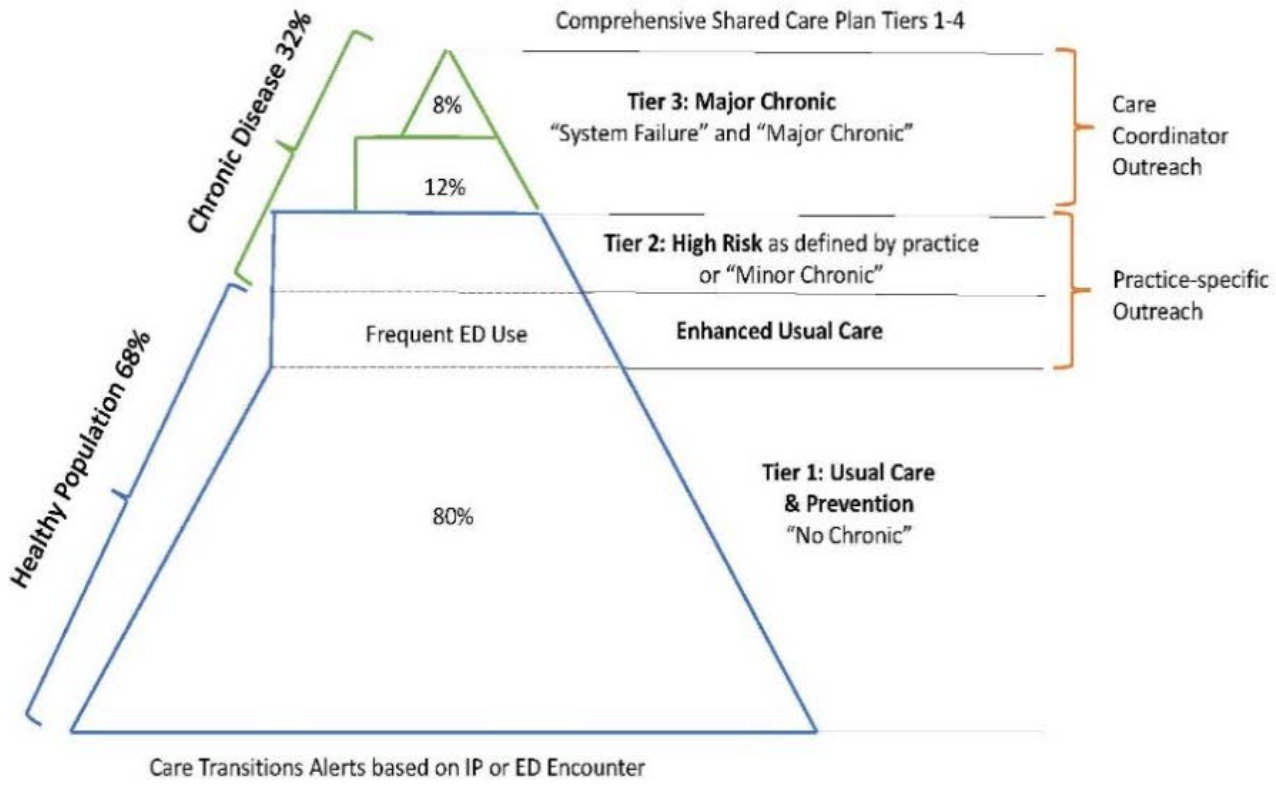
Hewner, S., Casucci, S., Pratt, R., Sullivan, S. S., Mistretta, F., Johnson, B. J., . . . Fox, C. H. (2017). Integrating social determinants of health into primary care clinical and informational workflow during care transitions. *eGEMs (Generating Evidence & Methods to improve patient outcomes), 5*(2).



Objectives for this session are that participants will:

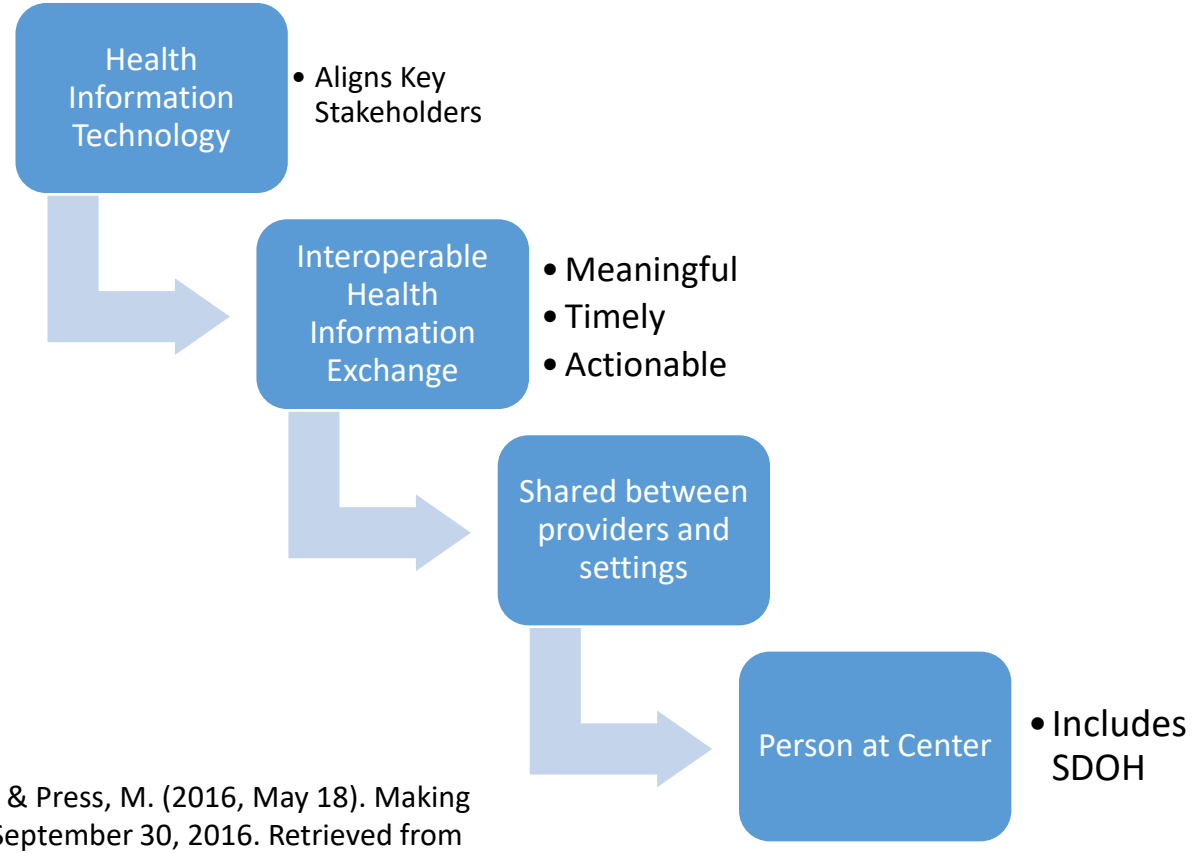
1. Analyze the challenges of incorporating SDOH into both informational and clinical workflow
2. Articulate the steps required to achieve a Comprehensive Shared Care Plan and the role of nursing informatics
3. Describe strategies to make care planning interoperable so it can be shared across settings
4. Describe how dividing the population into risk-standardized segments facilitates analysis of outcomes

Figure 4. Alignment of population complexity segments with outreach

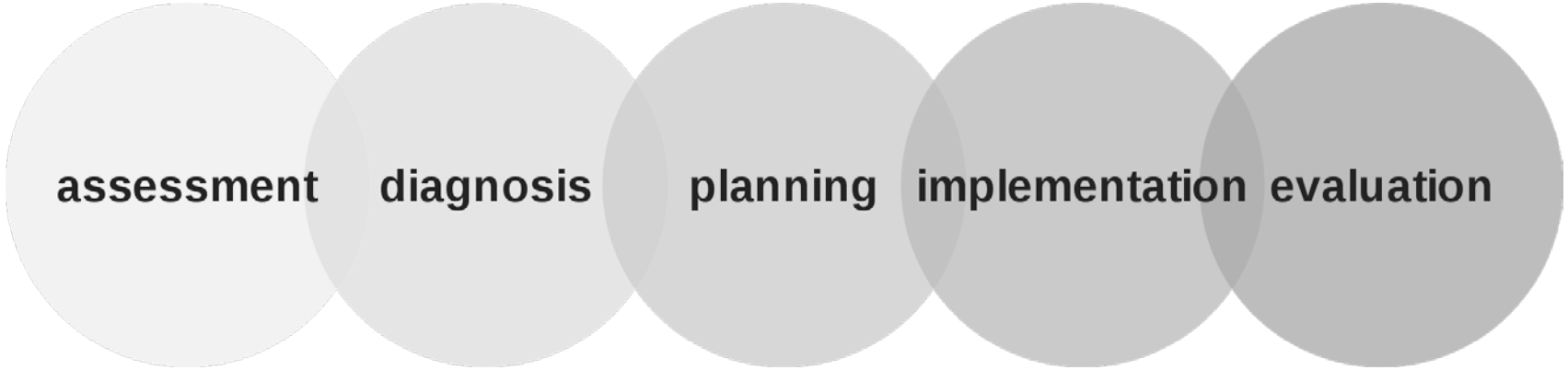


The Goal:
Comprehensive Shared Care Plan (CSCP)

In 2016 representatives from the US Department of Health and Human Services outlined a vision for the future of multidisciplinary shared care planning, recognizing that poor individual health outcomes may evolve from social inequities; thereby cascading into public socioeconomic burdens. The proposed comprehensive shared care plan (CSCP) aims to use health information technology to align key stakeholders via the interoperable exchange of meaningful, timely, and actionable patient care information that can be shared between providers and settings. Perhaps most importantly, the national vision for a CSCP is one that is holistic, places the individual at the center of care, and includes information about community-based needs and services over time (Baker et al., 2016, May 18).



Baker, A., Cronin, K., Conway, P., DeSalvo, K., Rajkumar, R., & Press, M. (2016, May 18). Making the Comprehensive Shared Care Plan a Reality. Accessed September 30, 2016. Retrieved from http://catalyst.nejm.org/making-the-comprehensive-shared-care-plan-a-reality/



The Nursing Process

Assessment
An RN uses a systematic, dynamic way to collect and analyze data about a client, the first step in delivering nursing care. Assessment includes not only physiological data, but also psychological, sociocultural, spiritual, economic, and life-style factors as well. *That is, it includes social and behavioral determinants of health.*

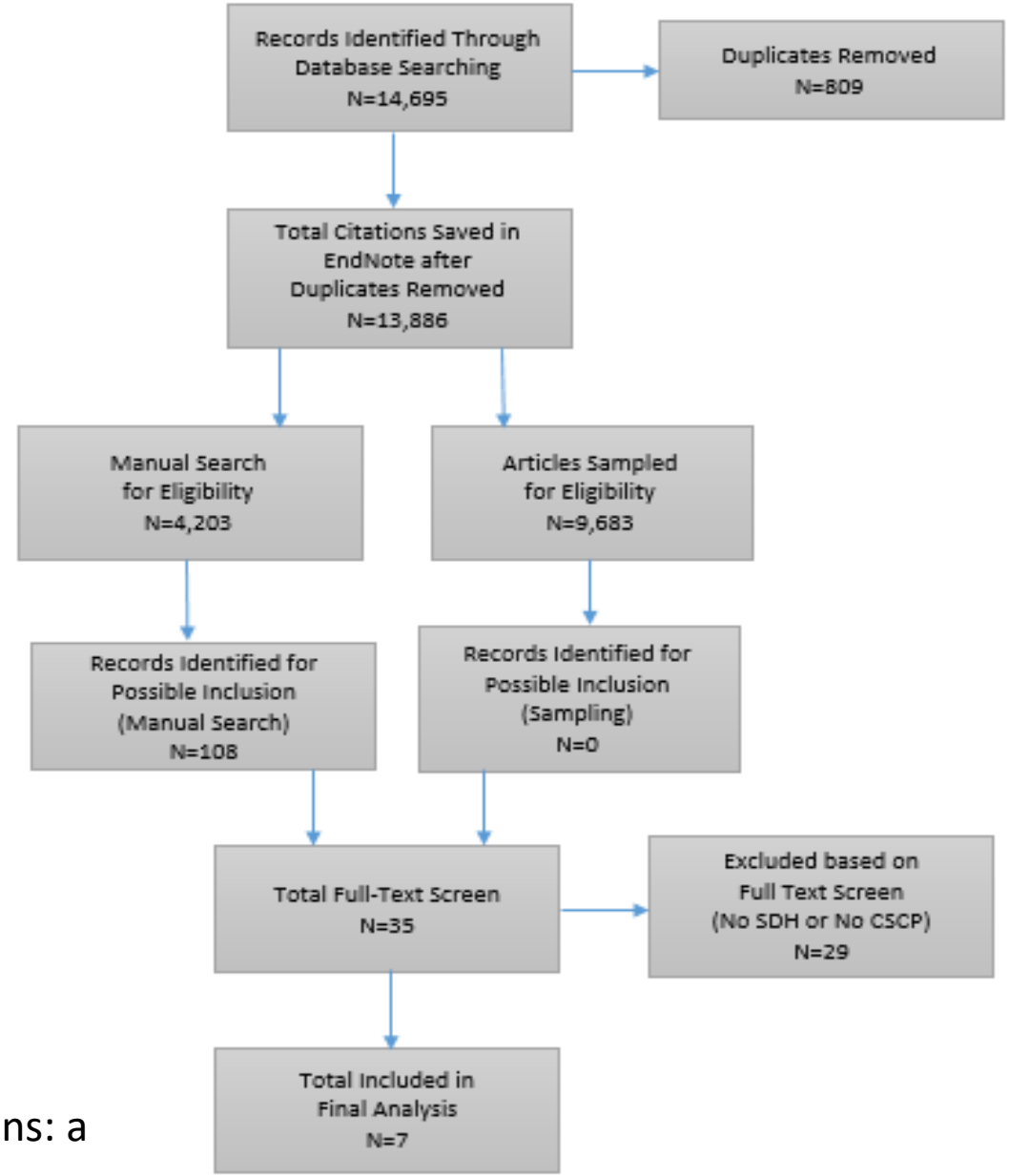
Diagnosis
The nursing diagnosis is the nurse's clinical judgment about the client's response to actual or potential health conditions or needs. *In an era of electronic medical records, how do we move from assessment to identification of health concerns?*

Outcomes / Planning
Based on the assessment and diagnosis, the nurse sets measurable and achievable short- and long-range goals Assessment data, diagnosis, and goals are written in the patient's care plan so that nurses as well as other health professionals caring for the patient have access to it.

The American Nursing Association definition from https://www.nursingworld.org/practice-policy/workforce/what-is-nursing/the-nursing-process/

What is the evidence for nursing's role in incorporating social determinants into shared care plans?

Search Strategy Key Terms
Longitudinal care planning
“LCP”
Shared care plans
Personalized care plans
Patient care planning
Continuity of patient care
Cooperative behavior
Interdisciplinary communication
Patient care team
Meaningful use
Patient-centered care
Organization and administration
Health information exchange
Delivery of health care
System integration
Coordinated care
Multidisciplinary



Sullivan, S. S., Mistretta, F., Casucci, S., & Hewner, S. (2017). Integrating social context into comprehensive shared care plans: a scoping review. *Nurs Outlook, 65*(5), 597-606.

Our Conclusions about SDOH and CSCP

Themes included:

- the need to integrate health and social sectors;
- interoperability;
- standardizing ontologies and interventions;
- process implementation;
- professional “tribalism”; and
- patient-centeredness.

- There is an emerging interest in bridging the gap between health and social service sectors.
- Standardized ontologies and theoretical definitions need to be developed to facilitate communication, indexing, and data retrieval.
- We identified a gap in the literature that indicates that foundational work will be required to guide the development of a CSCP that includes SDH that can be shared across settings.
- The lack of studies published in the US suggest this is a critical area for future research and funding.

Assessment of SDOH

Cantor, M. N., & Thorpe, L. (2018). Integrating Data On Social Determinants Of Health Into Electronic Health Records. *Health Affairs, 37*(4), 585-590.

Institute of Medicine. Capturing social and behavioral domains and measures in electronic health records: phase 1. Washington (DC): National Academies Press; 2014.

National Association of Community Health Centers. What is PRAPARE? [Internet]. Bethesda (MD): NACHC; c 2018 [cited 2018 Feb 5]. Available from: http://www.nachc.org/research-and-data/prapare/

Billioux A, Verlander K, Anthony S, Alley D. Standardized screening for health-related social needs in clinical settings: the Accountable Health Communities screening tool [Internet]. Washington (DC): National Academy of Medicine; 2017 May 30 [cited 2018 Feb 5]. (Discussion Paper). Available from: https://nam.edu/wp-content/uploads/2017/05/Standardized-Screening-for-Health-Related-Social-Needs-in-Clinical-Settings.pdf

EXHIBIT 1

Categories of data related to individual-level social determinants of health across three common sources

Category	Source
GENERALLY COLLECTED IN ELECTRONIC HEALTH RECORDS	
Race/ethnicity	IOM reports; PRAPARE
Tobacco use	IOM reports
Alcohol use	IOM reports
Primary language	PRAPARE
Veteran status	PRAPARE
Health insurance	PRAPARE
Depression	IOM reports
Address	IOM reports; PRAPARE
SAFETY ISSUES	
Intimate partner violence	IOM reports; PRAPARE; AHCS
FINANCIAL ISSUES	
Financial strain (including food insecurity)	IOM reports; PRAPARE; AHCS
Transportation needs	PRAPARE; AHCS
Housing insecurity	PRAPARE; AHCS
Housing quality	AHCS
Employment status	PRAPARE
Income	PRAPARE
Utility needs	AHCS
BEHAVIORAL HEALTH	
Stress	IOM reports; PRAPARE
Social isolation	IOM reports; PRAPARE
Physical activity	IOM reports
OTHER DEMOGRAPHIC CHARACTERISTICS	
Education level	IOM reports; PRAPARE
Migrant worker status	PRAPARE
History of incarceration	PRAPARE
Refugee status	PRAPARE
Family size	PRAPARE

SOURCE Authors' analysis of data from the sources described below. **NOTES** "IOM reports" are the Institute of Medicine reports in notes 13 and 14 in text. "PRAPARE" is Protocol for Responding to and Assessing Patients' Assets, Risks, and Experiences (see note 15 in text). "AHCS" is Accountable Health Communities Screening Tool (see note 16 in text).

PRAPARE: Protocol for Responding to and Assessing Patient Assets, Risks, and Experiences

Self-administered tool with 21 items
5 domains:

- personal characteristics
- family & home
- money & resources
- social and emotional health
- optional

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PRAPARE: Protocol for Responding to and Assessing Patient Assets, Risks, and Experiences
Paper Version of PRAPARE for Implementation As of September 2, 2016

Personal Characteristics

1. Are you Hispanic or Latino?

Yes	No	I choose not to answer this question

2. Which race(s) are you? Check all that apply.

Asian	Native Hawaiian
Pacific Islander	Black/African American
White	American Indian/Alaskan Native
Other (please write):	
I choose not to answer this question	

3. At any point in the past 2 years, has season or migrant farm work been your or your family's main source of income?

Yes	No	I choose not to answer this question

4. Have you been discharged from the armed forces of the United States?

Yes	No	I choose not to answer this question

5. What language are you most comfortable speaking?

English
Language other than English (please write)
I choose not to answer this question

Family & Home

6. How many family members, including yourself, do you currently live with? _____

I choose not to answer this question

7. What is your housing situation today?

I have housing
I do not have housing (staying with others, in a hotel, in a shelter, living outside on the street, on a beach, in a car, or in a park)
I choose not to answer this question

8. Are you worried about losing your housing?

Yes	No	I choose not to answer this question

9. What address do you live at?

Street: _____
City, State, Zipcode: _____

Money & Resources

10. What is the highest level of school that you have finished?

Less than high school degree	High school diploma or GED
More than high school	I choose not to answer this question

11. What is your current work situation?

Unemployed	Part-time or temporary work	Full-time work
Otherwise unemployed but not seeking work (ex: student, retired, disabled, unpaid primary care giver) Please write:		
I choose not to answer this question		

12. What is your main insurance?

None/uninsured	Medicaid
CHIP Medicaid	Medicare
Other public insurance (not CHIP)	Other Public Insurance (CHIP)
Private Insurance	

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13. During the past year, what was the total combined income for you and the family members you live with? This information will help us determine if you are eligible for any benefits.

_____

I choose not to answer this question

14. In the past year, have you or any family members you live with been **unable** to get any of the following when it was **really needed**? Check all that apply.

Yes	No	Food	Yes	No	Clothing
Yes	No	Utilities	Yes	No	Child Care
Yes	No	Medicine or Any Health Care (Medical, Dental, Mental Health, Vision)			
Yes	No	Phone	Yes	No	Other (please write):
I choose not to answer this question					

15. Has lack of transportation kept you from medical appointments, meetings, work, or from getting things needed for daily living? Check all that apply.

Yes, it has kept me from medical appointments or from getting my medications
Yes, it has kept me from non-medical meetings, appointments, work, or from getting things that I need
No
I choose not to answer this question

Social and Emotional Health

16. How often do you see or talk to people that that you care about and feel close to? (For example: talking to friends on the phone, visiting friends or family, going to church or club meetings)

Less than once a week	1 or 2 times a week
3 to 5 times a week	5 or more times a week
I choose not to answer this question	

17. Stress is when someone feels tense, nervous, anxious, or can't sleep at night because their mind is troubled. How stressed are you?

Not at all	A little bit
Somewhat	Quite a bit
Very much	I choose not to answer this question

Optional Additional Questions

18. In the past year, have you spent more than 2 nights in a row in a jail, prison, detention center, or juvenile correctional facility?

Yes	No	I choose not to answer this question

19. Are you a refugee?

Yes	No	I choose not to answer this question

20. Do you feel physically and emotionally safe where you currently live?

Yes	No	Unsure
I choose not to answer this question		

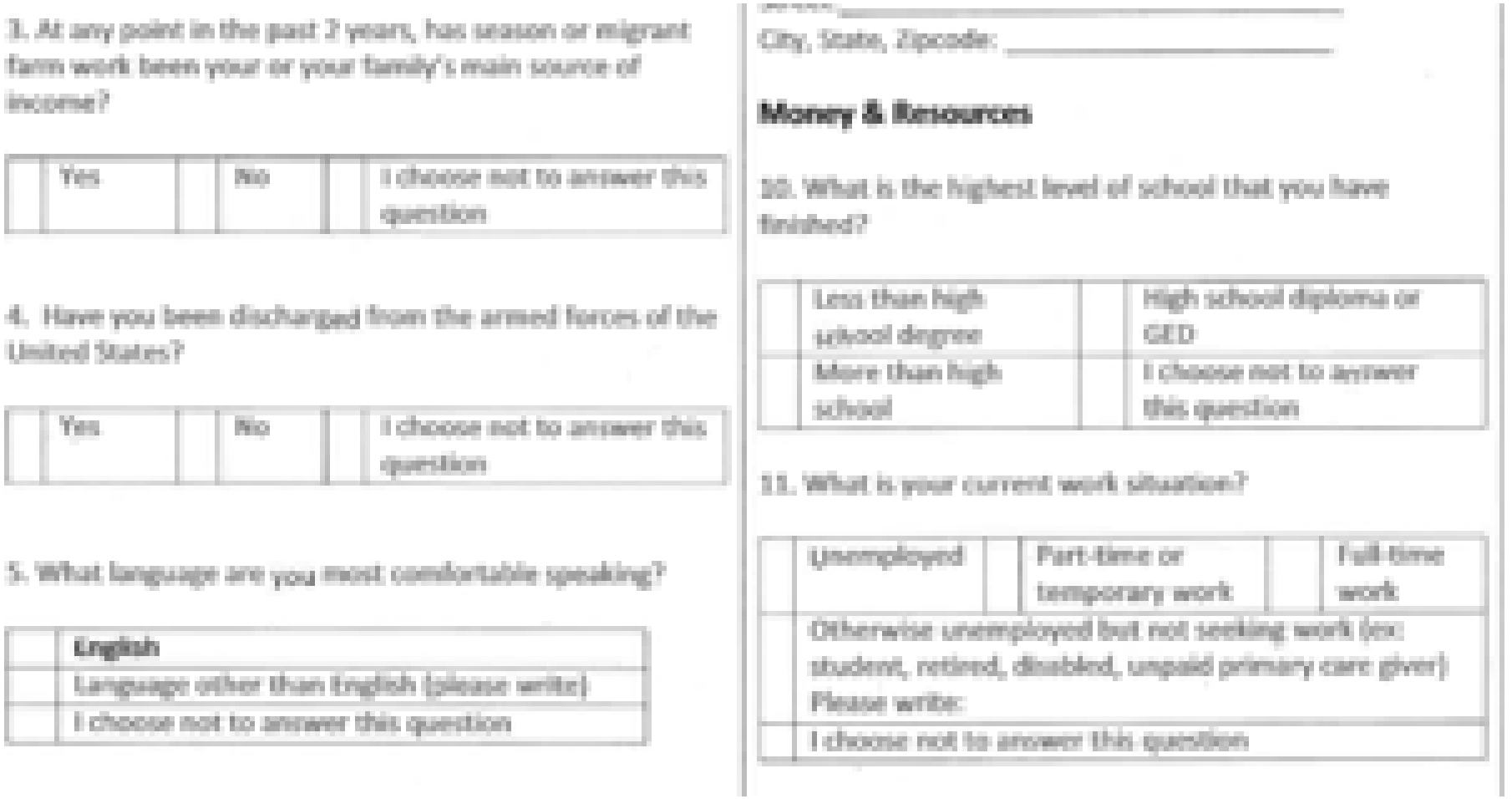
21. In the past year, have you been afraid of your partner or ex-partner?

Yes	No	Unsure
I have not had a partner in the past year		
I choose not to answer this question		

© 2016: National Association of Community Health Centers, Inc., Association of Asian Pacific Community Health Organizations, and Oregon Primary Care Association. PRAPARE is proprietary information of NACHC and its partners. All rights reserved.
For more information about this tool, please visit our website at www.nachc.org/PRAPARE or contact us at mjester@nachc.org.

Detail of the middle of page 1

Designed to address the needs of a community outreach center



3. At any point in the past 2 years, has season or migrant farm work been your or your family's main source of income?

	Yes		No		I choose not to answer this question

4. Have you been discharged from the armed forces of the United States?

	Yes		No		I choose not to answer this question

5. What language are you most comfortable speaking?

	English
	Language other than English (please write)
	I choose not to answer this question

City, State, Zipcode: _____

Money & Resources

10. What is the highest level of school that you have finished?

	Less than high school degree		High school diploma or GED
	More than high school		I choose not to answer this question

11. What is your current work situation?

	Unemployed		Part-time or temporary work		Full-time work
	Otherwise unemployed but not seeking work (ex: student, retired, disabled, unpaid primary care giver) Please write:				
	I choose not to answer this question				

Patient Centered Assessment Method PCAM

www.pcamonline.org

Administered by nurse as part of assessment

12 items

4 domains:

- Health & wellbeing
- Social environment
- Health literacy & communication
- Service coordination

4 levels of severity

Leads to action

Patient Centred Assessment Method (PCAM)

Vs1.2 June 2013

ID _____ Date: __ __/ __ __ __/2 0 __ __

Nurse/Clinician:

Instructions: Use this assessment as a guide, ask questions in your own words during the consultation to help you answer each question. Circle one option in each section to reflect the level of complexity relating to this client. To be completed either during or after the consultation.

Health and Well-being

1. Thinking about your client's **physical health needs**, are there any symptoms or problems (risk indicators) you are unsure about that require further **investigation**?

No identified areas of uncertainty or problems already being investigated	Mild vague physical symptoms or problems; but do not impact on daily life or are not of concern to client	Mod to severe symptoms or problems that impact on daily life	Severe symptoms or problems that cause significant impact on daily life

2. Are the client's **physical health problems** impacting on their **mental well-being**?

No identified areas of concern	Mild impact on mental well-being e.g. "feeling fed-up", "reduced enjoyment"	Moderate to severe impact upon mental well-being and preventing enjoyment of usual activities	Severe impact upon mental well-being and preventing engagement with usual activities

3. Are there any problems with your client's **lifestyle behaviours** (alcohol, drugs, diet, exercise) that are impacting on **physical** or **mental well-being**?

No identified areas of concern	Some mild concern of potential negative impact on well-being	Mod to severe impact on client's well-being, preventing enjoyment of usual activities	Severe impact on client's well-being with additional potential impact on others

4. Do you have any **other concerns** about your client's **mental well-being**? How would you rate their severity and impact on the client?

No identified areas of concern	Mild problems- don't interfere with function	Mod to severe problems that interfere with function	Severe problems impairing most daily functions

Social Environment

1. How would you rate their **home environment** in terms of **safety and stability**? (including domestic violence, insecure tenancy, neighbour harassment)

Consistently safe, supportive, stable. No identified problems.	Safe, stable, but with some inconsistency	Safety/stability questionable	Unsafe and unstable

2. How do **daily activities** impact on the client's well-being? (include current or anticipated unemployment, work, caring or other)

No identified problems or perceived positive benefits	Some general dissatisfaction but no concern	Contributes to low mood or stress at times	Severe impact on poor mental well-being

3. How would you rate their **social network** (family, work, friends)?

Good participation with social networks	Adequate participation with social networks	Restricted participation with some degree of social isolation	Little participation, lonely and socially isolated

4. How would you rate their **financial resources**? (include ability to afford all required medical care)

Financially secure, resources adequate. No identified problems.	Financially secure, some resource challenges	Financially insecure, some resource challenges	Financially insecure, very few resources, immediate challenges

Health literacy and communication

1. How well does the client **now understand** their health and well-being (symptoms, signs or risk factors) and what they need to do to manage their health?

Reasonable to good understanding and already engages in managing health or is willing to undertake better management	Reasonable to good understanding but do not feel able to engage with advice at this time	Little understanding which impacts on their ability to undertake better management	Poor understanding with significant impact on ability to manage health

2. How well do you think your client can **engage** in healthcare discussions? (Barriers include language, deafness, aphasia, alcohol or drug problems, learning difficulties, concentration)

Clear and open communication, no identified barriers	Adequate communication, with or without minor barriers	Some difficulties in communication with or without moderate barriers	Serious difficulties in communication, with severe barriers

Service Coordination

1. Do **other services** need to be involved to help this client?

Other care/services not required at this time	Other care/services in place and adequate	Other care/services in place but not sufficient	Other care/services not in place and required

2. Are services involved with this client well **coordinated**?

All required care/services in place and well coordinated	Required care/services in place and adequately coordinated	Required care/services in place with some coordination barriers	Required care/services missing and/or fragmented

Routine Care	Active monitoring	Plan Action	Act Now

What action is required?	Who needs to be involved?	Barriers to action?	What action will be taken?

Notes:

Addressing informational and clinical workflow

Where we started

- Primary care practice had a part-time care coordinator who managed adherence to diabetes guidelines
- We automated notification of discharges by sending a care transitions alert to the care coordinator, who made an outreach call
- After the call, the nurse completed the PCAM assessment
  - www.pcamonline.org
- To get discrete results into the EHR, the nurse entered the response to each question (1-4) in a lab test

Problems we encountered

- Nurse uncomfortable dealing with behavioral health issues
- No experience setting out interventions for social determinants
- The lab limited the number of characters in the question to 50

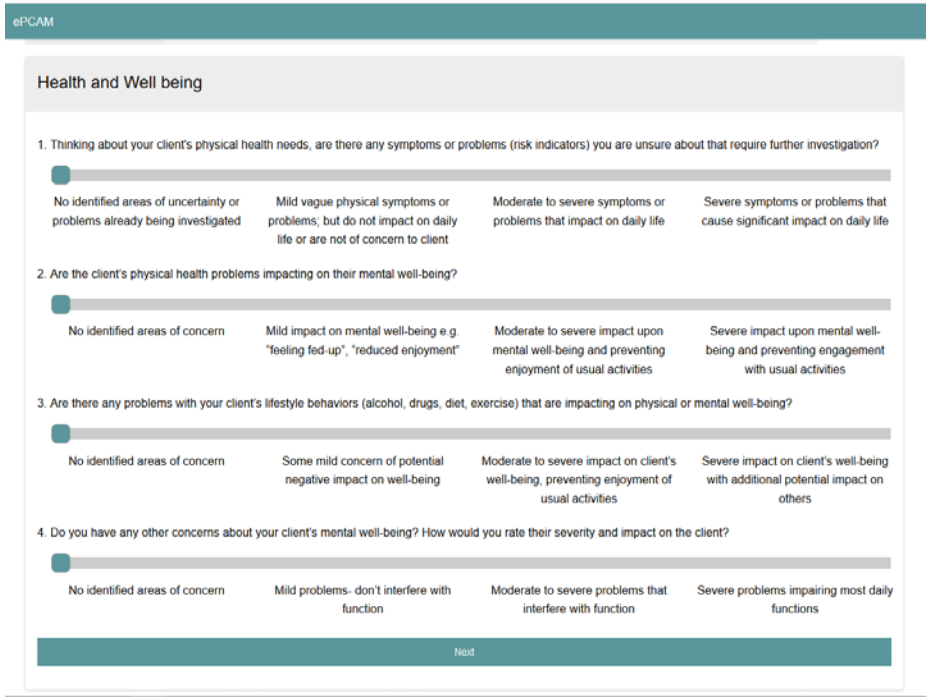
- The biggest problem was that completing the tool added no value to the nurse and took multiple steps that didn’t help her to interpret the results

So we developed a web-based app: the ePCAM

- This allowed the nurse to copy and paste the problems that were scored above level three into her Transitions of Care Note
- The note included the results of the PCAM, but discrete data was replaced with nonsense when the lab was transmitted electronically as a continuity of care document (CCD) our regional health information exchange organization
- This was a big step forward and we eventually had the nurse adding the problems to the care plan in the EHR

- But we still didn’t help her to interpret the results

From Assessment Tool to Clinical Decision Support and incorporation into CSCP



http://nursent5.nurse.buffalo.edu:1337/#!/

New features

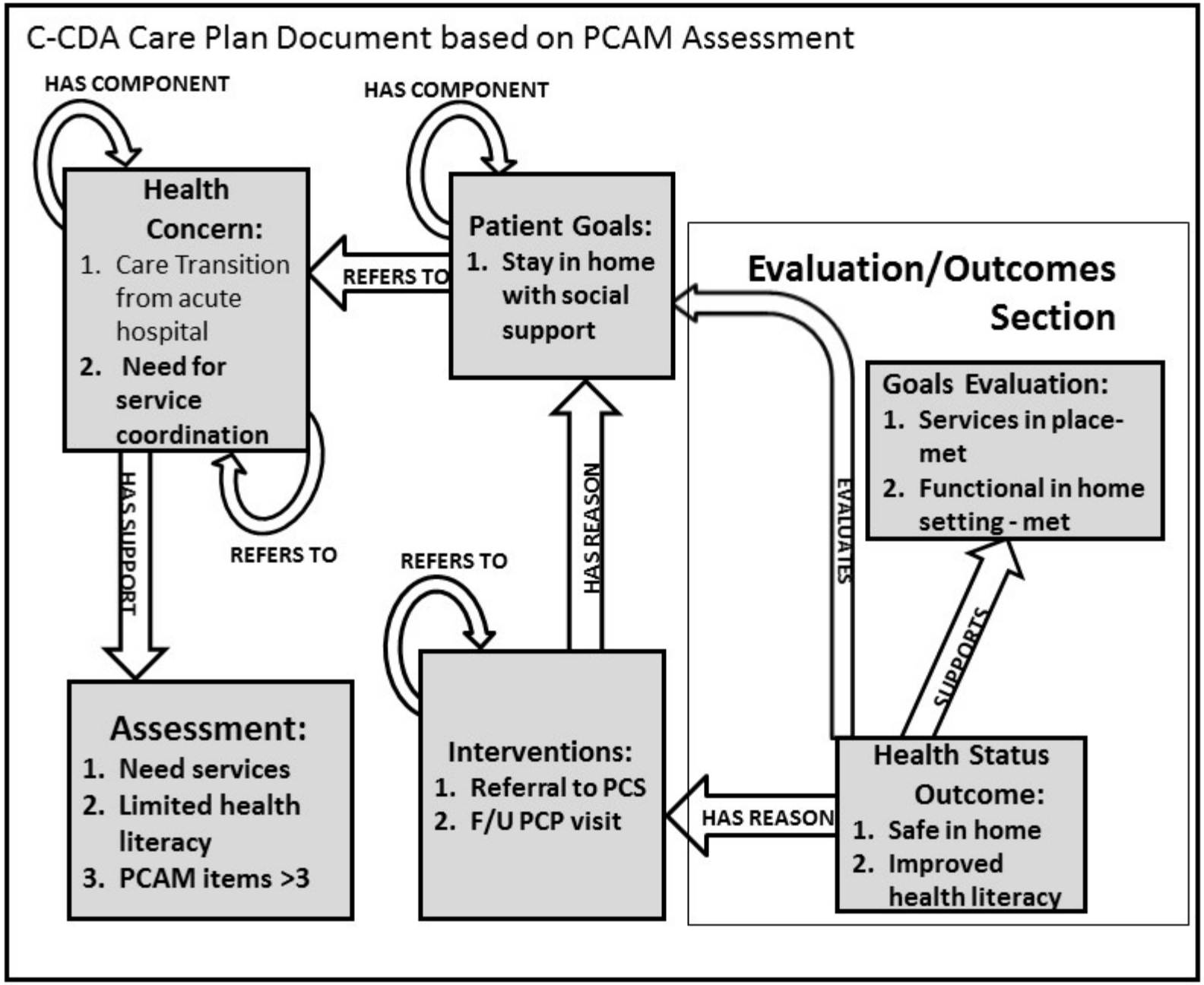
- inclusion of results
- New care plan section
- Revised text for problem statements

We still don't have a way for discrete data to get to the EHR except by manual entry

https://ub.hosted.panopto.com/Panopto/Pages/Viewer.aspx?id=57dbb38c-88aa-45ad-b465-a8f80134226b

Making the care plan interoperable

Adding LOINC codes that could be included in the health level seven consolidated document architecture release 2 care plan HL7 CDA-r2 care plan



Adapted with permission from Matney, S., Dolin, G., Buhl, L., & Sheide, A. (2016). Communicating nursing care using the health level seven consolidated document architecture release 2 care plan. *Computers Informatics Nursing, 34*(3), 128-136. doi:DOI: 10.1097/CIN.0000000000000214

PANEL HIERARCHY (view this panel in the LForms viewer)

LOINC# LOINC Name R/O/C CardinalityEx. UCUM Un

83331-9 Patient Centered Assessment Method panel [PCAM]

83329-3 Health and well-being panel [PCAM]

- 83328-5 Thinking about your client's physical health needs, are there any symptoms or problems (risk indicators) you are unsure about that require further investigation?
- 83330-1 Are the client's physical health problems impacting on their mental wellbeing?
- 83332-7 Are there any problems with your client's lifestyle behaviors (alcohol, drugs, diet, exercise) that are impacting on physical or mental well-being?
- 83333-5 Do you have any other concerns about your client's mental well-being – how would you rate their severity and impact on the client?

83334-3 Social environmental panel [PCAM]

- 83322-8 How would you rate their home environment in terms of safety and stability
- (including domestic violence, insecure housing, neighbor harassment)?
- 83323-6 How do daily activities impact on the client's well-being (include current or anticipated unemployment, work, caregiving, access to transportation or other)?
- 83324-4 How would you rate their social network (family, work, friends)?
- 83335-0 How would you rate their financial resources (including ability to afford all required medical care)?

83336-8 Health literacy and communication panel [PCAM]

- 83337-6 How well does the client now understand their health and well-being (symptoms, signs or risk factors) and what they need to do to manage their health?
- 83338-4 How well do you think your client can engage in healthcare discussions (barriers include language, deafness, aphasia, alcohol or drug problems, learning difficulties, concentration)?

83339-2 Service coordination panel [PCAM]

- 83340-0 Do other services need to be involved to help this client?
- 83341-8 Are current services involved with this client well-coordinated (include coordination with other services you are now recommending)?

83344-2 What action is required [PCAM]

83343-4 Who needs to be involved [PCAM]

83342-6 Barriers to action [PCAM]

83345-9 What action will be taken [PCAM]

Sorting through output and creating a care plan

Responses are divided into 4 categories:

1. Act Now
2. Plan Action
3. Active Monitoring
4. Usual Care: Patient Strengths

Care Plan

- 83344-2 What action is required [PCAM]
- 83343-4 Who needs to be involved [PCAM]
- 83342-6 Barriers to action [PCAM]
- 83345-9 What action will be taken [PCAM]

83328-5 Physical health needs that require further investigation [PCAM]

NAME

	Component	Property	Time	System	Scale	Method
Fully-Specified Name:	Physical health needs that require further investigation	Find	Pt	^Patient	Ord	PCAM
Long Common Name:	Physical health needs that require further investigation [PCAM]					

BASIC ATTRIBUTES

Class/Type:	SURVEY.GNHLTH/Survey
Order vs. Obs.:	Observation
Status:	Active

NORMATIVE ANSWER LIST (LL4189-8)

SEQ#	Answer	Answer ID
1	No identified areas of uncertainty or problems already being investigated	LA26851-8
2	Mild vague physical symptoms or problems; but do not impact on daily life or are not of concern to client	LA26852-6
3	Mod to severe symptoms or problems that impact on daily life	LA26853-4
4	Severe symptoms or problems that cause significant impact on daily life	LA26854-2

SURVEY QUESTION

Text:	Thinking about your client's physical health needs, are there any symptoms or problems (risk indicators) you are unsure about that require further investigation?
Source:	PCAM.Health and Well-being.1

MEMBER OF THESE PANELS

Patient Centered Assessment Method	Qualitative

TECHNICAL BRIEF

Source: Patient Centered Assessment Method (PCAM), **URL:** PCAM Assessor Guide

83344-2 What action is required [PCAM]

NAME

Fully-Specified Name:	**Component**	**Property**	**Time**	**System**	**Scale**	**Method**
	What action is required	Imp	Pt	^Patient	Nar	PCAM
Long Common Name:	What action is required [PCAM]					

BASIC ATTRIBUTES

Class/Type:	SURVEY.GNHLTH/Survey
Order vs. Obs.:	Observation
Status:	Active

MEMBER OF THESE PANELS

83331-9	Patient Centered Assessment Method panel [PCAM]

RELATED NAMES

Impression	Interpretation	Random
Impression/interpretation of study	Narrative	Report
Impressions	Patient Centered Assessment Method	SURVEY.GNHLTH
Interp	Point in time	

Conclusion

- We met with major challenges at every step for a very simple set of questions about social determinants
- Information on the ePCAM care plan aligns with the health concerns, observations, interventions used in the C-CDA R2 care plan
- LOINC codes are a big step forward, but we have a long way to get SBDH into the HL7 C-CDA R2 care plan as a CSCP,
- Making the assessment useful for the nurse and incorporating it into an CSCP and is still ongoing