Texas Council
of Community Centers

Texas Council Interoperability Strategy

Throughout most of 2013, the Data Work Group of the Texas Council of Community Centers has been meeting to review and endorse an approach with regard to the exchange of clinical data elements for all Texas Council members. This process was explicitly intended to build on a document prepared by Health Level Seven (HL7), a standards-making organization in healthcare, and to identify data elements that are of interest to the behavioral health sector in Texas. This effort was undertaken in concert with similar efforts to identify clinical quality measures, and regarding an approach for the exchange of clinical information consistent with obligations under §42 CFR part 2, the federal regulations governing the exchange of substance abuse treatment information.

Background:
In the months leading up to May 2013, HL7 prepared and published a series of documents in support of development of a Clinical Document Architecture (CDA) specific to Behavioral Health. This document format itself was used to support development of the same Continuity of Care Document (CCD) that was endorsed by the Federal government as a required component for the EHR incentive program. The CCD is an implementation standard that is used to support care coordination for patients. To this end, the CCD contains a great deal of information—including demographic information, lab and test results, prescriptions, diagnoses, a problem list, utilization, dates, etc.; however, it lacks an ability to convey information critical to behavioral healthcare. As a result, HL7 began a community-based effort to codify discrete data elements and to bring them together in document known as the Behavioral Health CCD (BH-CCD).

The use of a standardized, machine-readable document format is critical to the effective use of electronic health records, since it facilitates the exchange of information about a patient. Information standards are important both for encoding (i.e. the EHR) and decoding a document since there must be perfect alignment between how and in what format data is sent, and how and in what format data is expected by a recipient. The challenge here is that historically, behavioral health providers have struggled to participate in exchange of data, both because most standards do not promote data elements that are germane to behavioral health, and because there is no standard about what data to exchange.

The Data Work Group of the Texas Council began by both reviewing documents from HL7 related to the emerging BH-CCD and initiating discussions with other agencies nationwide who were involved in the exchange of clinically relevant behavioral health data. Among the content reviewed by the Data Work Group was a presentation by Shaun Alfreds the COO of HealthInfoNet, the HIE for the State of Maine, and Laura Adams, the CEO of the Rhode Island Quality Institute (RIQI), the HIE for Rhode Island. Both of these HIEs operate on a central data repository HIE model, meaning they consume and store data from multiple sources, and make this information available when requested.

HealthInfoNet in particular began to explore with behavioral health agencies in Maine what information they wanted to obtain to better coordinate care. The response of the behavioral health sector was to request the inclusion of two additional data elements: one on housing status, and one on suicidality. For Data Work Group members this was a promising development showing a strong partnership between HIEs and behavioral health agencies that held promise for Texas.

Building off of documents prepared by the Substance Abuse and Mental Health Services Administration (SAMHSA), the Data Work Group reviewed summary documentation describing the data elements in the BH-CCD that were not already in a standard CCD. All told, there were ninety-four (94) additional data elements, broken up into eight (8) domains, or content areas, with seven sub-domains. These include:

- Client Demographics Domain
- Episode of Care Domain
- Document Management Domain
- Social History Domain
    - Criminal Justice Sub-Domain
    - Education Sub-Domain
    - Homelessness Sub-Domain
    - Veteran Status Sub-Domain
    - Income Sub-Domain
    - Trauma/Domestic Violence Sub-Domain
    - Peer Group Support Sub-Domain
- Assessments Domain
- Problems Domain
- Substances of Abuse Domain
- Procedures Domain

One of the major challenges of this group was to differentiate between data elements that were objectively important from those that would make a difference as part of the exchange of clinical content. After all, a strong case could be made for the inclusion of many if not most of the data elements associated with each of the proposed domains for the BH-CCD. However, many critical elements—such as diagnosis—are already part of the existing standard for a CCD; others, may be readily obtainable from the patient upon transfer, or through a standard operating procedure for an intake. Additionally, the DWG wanted to be as parsimonious as possible in selecting supplemental data elements since it would potentially require development effort on the part of both HIEs and EHR vendors.

Approach:

The DWG began efforts by having a sub-work group review the nearly 100 additional elements identified as part of the proposed BH-CCD. This data element work group used a three-point scoring system for each element:

1. High urgency;
2. Moderate urgency; and
3. Low urgency.

Ultimately, the group chose to frame this in terms of urgency out of the observation that *all* elements were deemed clinically relevant and, in a perfect world, behavioral health providers would want them; however, given the development effort this would require, the workgroup wanted to make the project achievable in a relatively short period of time for all relevant stakeholders.

Additionally, the data element work group also began a review with the three EHR products in use by Texas Council members to ensure that the data elements being requested were capable of being captured with existing systems. The results of this process would drive the operational feasibility of this effort.

After an initial review, the data element work group identified five high urgency data elements, closely aligned with the effort in Maine. These elements were:

- Primary Residence Setting
- Criminal Justice System Involvement
- Domestic Violence Trauma
- Behavioral Health Critical Problem; and
- Behavioral Health Critical Flag.

However, the data element work group lacked any clinicians. As a result, the data element work group went back to the DWG to request additional support, specifically from clinicians. Although this resulted in some re-work, the clinicians, having gone through the same exercise, identified a number of different elements that they deemed urgent.

Over the next several weeks, the data elements work group continued to meet in an effort to harmonize the disparate findings of the two different cohorts. The clinical review, after all, provided the group with new critical information on how clinicians valued information from specific data elements. Ultimately, the data elements work group sought to strike the right balance of obtainable change, standardized data, and clinically relevant content. In the final analysis, these data elements—in addition to those contained as part of a standard CCD—represent a strong step forward for behavioral health care coordination in Texas.

The DWG has discussed and endorsed the following seven data elements:

- Episode of Care Type
- Primary Residence Setting
- Risk Behavior
- Domestic Violence Trauma
- Assessment Type
- Assessment Score
- Behavioral Health Critical Flag

On January 17, 2014 the Texas Council Executive Directors' Consortium reviewed and approved the workgroups' recommended strategy for interoperability. The Texas Council believes that these data elements—in addition to those contained in a standard CCD—are of strong clinical relevance to behavioral health agencies. Additionally, the Texas Council believes they will bring strong value to care coordination, particularly as Community Centers support the transfer of consumers from one facility to another. The Texas Council further believes that adding these data elements will be relatively straight-forward for the EHRs that are currently in use among Community Centers. Finally—and perhaps most significantly—the inclusion of these data elements will enable recipients of a referral to quickly and narrowly identify key information about consumers, as opposed to looking for fragments among various other data fields. This alone will facilitate care coordination and collaboration among a host of stakeholders.

Details of these data elements form the HL7 Documentation are described below.

Episode of Care Type

- HL7 Recommendation: Optional/Once
- Quickly and clearly differentiates the content as being germane to a crisis or a routine visit
- Information classifies a single encounter

Definition	Meaning
Crisis Encounter	Describes a Crisis encounter as the reason for Behavioral Health Report submission
RoutineBHEncounter	Describes a routine Behavioral Health client encounter as the reason for Behavioral Health Report submission

Primary Residence Setting

- HL7 Recommendation: Optional/Once per encounter
- This value set is used to specify the place where the client has spent most of his/her time in the past 30 days prior to intake or any change thereafter.

Meaning	Definition
Independent living	Client lives in a private residence with or without support in activities of daily living. Living arrangement may be with a roommate, housemate, and spouse or by self. Use only with individuals 15 years or older.
Supervisory care/assisted living	A facility licensed by state Assisted Living licensure. Use only with individuals 18 years or older.
State Hospital	A publicly funded inpatient facility for clients with mental illness. Use only with individuals 18 years or older.
Jail/Correctional facility	When an individual resides in a jail and/or correctional facility with care provided 24 hours, 7 days a week basis. This includes jail, correctional facility, prison, youth authority facility, juvenile hall, boot camp or Boys Ranch.
Homeless/homeless shelter	A client is considered homeless if he/she lacks a fixed, regular and adequate nighttime residence and/or his/her primary nighttime residence is either of the following: (1) a supervised publicly or privately operated shelter designed to provide temporary living accommodations; (2) an institution that provides a temporary residence for individuals intended to be institutionalized; or (3) a public or private place not designed for, or ordinarily used as, a regular sleeping accommodation for human beings (e.g., on the street).
Foster Home	When a client lives in a home other than that of the client's family. This includes therapeutic foster care facilities/home.
Home with family	When a client lives with parents, relatives, adopted family, or legal guardian.
Private Residence	
Level 1 treatment setting	Level 1 facility includes the following subcategories: (a) hospitals; (b) sub-acute facilities; and (c) residential treatment centers.
Level 2 treatment setting	Level 2 Behavioral Health Residential facilities provide structured treatment setting with 24-hour supervision and counseling or other therapeutic activities for clients who do not require on-site medical services, under the supervision of an on-site or on-call behavioral health professional.
Level 3 treatment setting	Level 3 Behavioral Health Residential facilities provide continuous 24-hour supervision and treatment in a group residential setting to clients who are determined to be capable

	of independent functioning but still need some protective oversight to insure they receive needed services.
Transitional housing (Level IV)	Transitional housing (Level IV) or DES group homes for children refers to a shelter/housing arrangement for short-term care. This includes DES children group homes, half-way/three-quarter way house, rural substance abuse transitional center, and all others not included in Levels I, 2, and 3 treatment settings.
Dependent living	

Risk Behavior

- HL7 Recommendation: Optional/Repeating
- This attribute is used to represent the client's risk behaviors. It will enable agencies to identify and understand key risks associated with an individual.

Concept	Definition
Suicide Risk	0 = no evidence 1 = history, watch/prevent 2 = recent, act 3 = acute, act immediately
Self Injurious	
Other Self Harm	
Gambling	
Exploitation	
Danger to Others	
Criminal Behavior	
Sexual Aggression	
Drug Use	
IV Drug Use	

Domestic Violence Trauma

- HL7 Recommendation: Optional/Repeating
- Knowing the size of the population that has experienced domestic violence is critical to determining the resources needed to address the problem in the population.

Meaning	Definition
Any Violence	Have you ever experienced violence or trauma in any setting (including community or school violence; domestic violence; physical, psychological, or sexual maltreatment/assault within or outside of the family; natural disaster; terrorism; neglect; or traumatic grief?)
Nightmares	Have had nightmares about it or thought about it when you did not want to?
Tried Hard	Tried hard not to think about it or went out of your way to avoid situations that remind you of it?
Constant Guard	Were constantly on guard, watchful, or easily startled?
Numb And Detach	Felt numb and detached from others, activities, or your surroundings?
Physically Hurt	How often have you been hit, kicked, slapped, or otherwise physically hurt?

Assessment Type/Score

- Assessment:
  - HL7 Recommendation: Required/Once
  - This attribute identifies the type of assessment that was applied to the client and is intended to be specified using a LOINC code and uses the BehavioralHealthAssessmentType value set.
- Score:
  - HL7 Recommendation: Required/Once
  - Value: Integer

Concept	Definition	Scoring
ACE	Adverse Childhood Experience(ACE) The ACE score attributes one point for each category of exposure to child abuse and/or neglect. Add up the points for a score of 0 to 10.	The higher the score, the greater the exposure, and therefore the greater the risk of the negative consequences. These consequences are discussed throughout the publications also available for download from this site.
ANSA	Assessment, Adult Needs and Strengths Assessment (ANSA)	
ASSIST	Alcohol, Smoking and Substance Involvement Screening Test	
AUDIT-C	3-Question screening; modified version of 10 question **AUDIT**	
AUDIT	Alcohol Use Disorders Identification Test: to detect alcohol problems experienced in the last	
BDI	Beck Depression Inventory	
BPRS 18	Brief Psychiatric Rating Scale (BPRS)	
CAGE	The **CAGE** can identify alcohol problems over the lifetime. Two positive responses are conside	
CASII	This code identifies the "Child and Adolescent Service Intensity Instrument". The CASII	
CANS	Child and Adolescent Needs and Strengths (CANS)	
CD-RISC	Connor-Davidson Resilience Scale (CD-RISC) (Besides the full 25-item CD-RISC (or CD-RISC 25), there are two briefer versions, the 10 item	
DAST	Drug Abuse Screening Test; modified version of 10 question (**DAST10**)	
DAST10	Drug Abuse Screening Test	
DSM AXIS V GAFScale	Axis V identifies the patient's level of function on a scale of 0-100, (100 is top-level functioning). This is known as the Global The clinician's judgment of the client's overall level	
DSM AXIS V CGSScale	Axis V identifies the patient's level of function on a scale of 0-100, (100 is top-level functioning). This is known as the Global The clinician's judgment of the client's overall level	
GAD-2	First 2 items of GAD-7. Ultra-brief anxiety screener.	Two items scored 0 to 3 (total score of 0-6)
GAD-7	Anxiety measure developed after PHQ but incorporated into PHQ-SADS.	Seven items, each of which is scored 0 to 3, providing a 0 to 21 severity score.
GAD-7	General Anxiety Disorder screener 7 Questions	
GAIN	This code identifies the "Global Appraisal of Individual Needs assessment instrument".	
GDS	Geriatric Depression Scale (GDS)	
HAMD	Hamilton Depression Rating Scale	
M3	M3 screen	
MADRS	Montgomery-Asberg Depression Rating Scale	
MMPI-2	Minnesota Multiphasic Personality Inventory®-2 (MMPI®-2)	
Brief PHQ	PHQ-9 and panic measures from original PHQ plus items on stressors and women's health.	See scoring for PHQ above. Stressor and women's health items are not diagnostic or scored.
PHQ	Five modules covering 5 common types of mental disorders: depression, anxiety, somatoform, alcohol, and eating.	Selected (but provisional) DSM-IV diagnoses for all types of disorders except somatoform.
PHQ-2	First 2 items of PHQ-9. Ultra-brief depression screener.	Two items scored 0 to 3 (total score of 0-6)
PHQ-4	Patient Health Questionnaire 4 Questions	
PHQ-8	All items of PHQ-9 except the 9th item on self-harm. Mainly used in non-depression research studies.	Eight items, each of which is scored 0 to 3, providing a 0 to 24 severity score.
PHQ-9	Depression scale from PHQ.	Nine items, each of which is scored 0 to 3, providing a 0 to 27 severity score.
PHQ-15	Somatic symptom scale from PHQ.	Fifteen items, each of which is scored 0 to 2, providing a 0 to 30 severity score.
PHQ-SADS	PHQ-9, GAD-7, and PHQ-15 measures, plus panic measure from original PHQ.	See scoring for these scales above.
PHQ-A	Substantially modified version of PHQ developed for use in adolescents. Moderate data exists for validity but much less than for original PHQ.	Diagnostic scoring described in manual, available upon request.
	U.S. Department of Veterans Affairs links to multiple PTSD screening instruments	
BAI-PC	Beck Anxiety Inventory Primary Care (BAI-PC)	
CAPS	Clinician-Administered PTSD Scale (CAPS)	
PC-PTSD	Primary Care PTSD Screen (PC-PTSD)	
SF-PTSD	Short Form of the PTSD Checklist Civilian Version	
SSS-PTSD	Short Screening Scale for PTSD	
SPAN	Startle, Physically Upset by Reminders, Anger, and Numbness	
SPRINT	Short Post-Traumatic Stress Disorder Rating Interview	
PCL	PTSD Checklist (PCL)	
TSQ	Trauma Screening Questionnaire (TSQ)	
SBIRT	Screening, Brief Intervention, and Referral to Treatment	
Mental Status Exam		

Behavioral Health Critical Flag

- HL7 Recommendation: Optional/Repeating
- This value set is used to identify the immediate risk of a clinical nature.

Concept	Definition
Suicidal behavior	SNOMED-CT CID: 425104003
Homicidal behavior	SNOMED-CT CID: 424241004
At risk for violence	SNOMED-CT CID: 65108000
At risk for self-directed violence	SNOMED-CT CID: 129709009
At risk for self-mutilation	SNOMED-CT CID: 129708001
At risk violence in the home	SNOMED-CT CID: 161051006