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Strategic Use of Population-Based Data for Improving Health

Sandra Stephenson, MA, MSW, PBHCI Director

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Decision Support Services, Inc.

About the Speakers

Phyllis Panzano, PhD is an industrial/organizational psychologist who has conducted health services research at Ohio State, the University of South Florida, and Decision Support Services, Inc. Her research and consulting portfolio focus on the adoption, implementation, and sustained use of innovations, including evidence-based and promising healthcare programs and practices.

About the Speakers

Sandra Stephenson, MSW has had an illustrious career in mental health as a clinician, an agency CEO, and a cabinet member for Ohio Governor Ted Strickland while serving as the Director of the Ohio Department of Mental Health (2007-2011). Sandra is the Director of Integrated and Primary Healthcare at Southeast and the PBHCI Program.as worked in the behavioral healthcare field for over 20 years.

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Context

- **Cohort**: 1
- **Setting**: Urban; Columbus, OH
- **Type of Program:**
  - Single corporation
  - Strong collaboration among PC and BH personnel
  - Integration across site, space; clients and systems
- **Primary Care Model:** Solo
- **Unduplicated Enrollments (6/30/13) = 1223** (Target = 950)
- **'Active' clients: Q3 FFY13 = 619; Quarter Peak = 857**

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Noteworthy Characteristics of SE's PBHCI Population

- **Vulnerable; most < 100% poverty**
- **Mostly single (64%);**
- **Race: Black (48%); White (50%)**
- **Gender: Male (54%); Female (48%)**
- **Employment: 90% unemployed**

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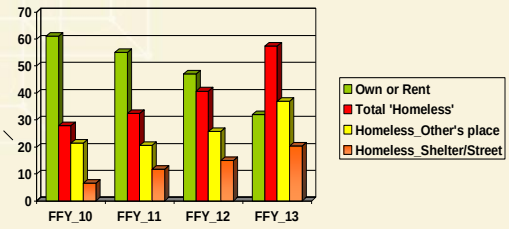
Significant shift over grant period toward enrolling homeless adults with SPMI



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Clusters[1] that Dominate[2]

- **Cluster 2A: 47%**
  Adults w/ serious SA,MH, and community living problems
- **Cluster 2B: 12%**
  Adults w/ severe SA problems and less severe MH problems
- **Cluster 3A: 16%**
  Adults whose psychiatric problems have cost them developmental opportunities in many life areas
- **Cluster 4A: 10%**
  Adults with trauma histories who struggle with anxiety and depression

[1] Rubin & Panzano, Psychiatric Services, 2002;
[2] Represent 85% of PBHCI enrollees as of Q1, FFY 2013

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Focus Today: Section H Data

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Who collects, monitors completeness of, and uses Section H data to improve health outcomes?

- **Collecting**
  - PC Clinic staff (e.g., doctors, nurses)
  - Typically not staff who conduct NOMs interviews
- **Monitoring is essential!**
  - Policy: Strong policy re: completing Section H per requirements
  - People: PC Clinic Front Desk, PBHCI Evaluator, SAMHSA
  - Paper: Three Section H 'Implementation Reports' from the *NOMs_Scheduler™* help put Section H policy into action
    - Health Measures Report[1]
    - Two Section H Aging Reports: Health and Blood Measures[1]

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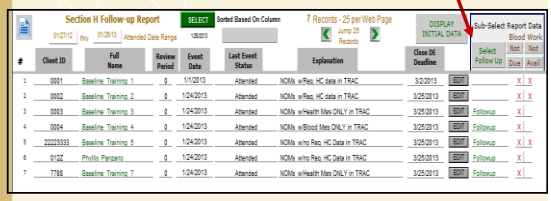
Health Measures Report

For which NOMs Assessments in TRAC is back-entry of Section H data needed?



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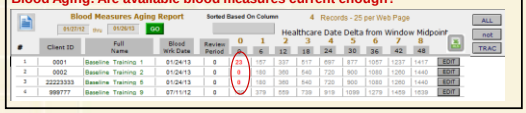
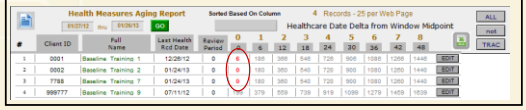
Section H Aging Report

Blood Aging: Are available blood measures current enough?*



Health Aging: Are available health measures current enough?*



* **Values in RED** are current enough to include for that particular NOMs Assessment Period

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Use:

- ❑ **Occurs at policy, clinical & administrative practice, client levels**
- ❑ **Three components:**
  - Analysis: Internal SE & External PBHCI evaluators; TRAC Reports
  - Interpretation: PBHCI & SE leaders; PC clinic team; evaluators
  - Application: PBHCI & SE leaders; PC clinic team; clients
- ❑ **Motivated by:**
  - Authorities (e.g., HRSA, TJC, NCQA, Ohio Medicaid HH)
  - SE concerns with population- & disease-specific healthcare issues
  - Section H requirements which support best practice medicine & the development of a culture of 'prevention'
    - Section H indicator patterns (HgA1c, BMI) for PBHCI population prompted SE to focus on Diabetes management

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A: How are H indicators collected and by whom?

- **Collecting data is *ONLY* the starting point**
- **Question pertains to two inter-related processes:**
  - Clinical process of taking measures, recording them in EHR and using Section H data in daily practice and during encounters with clients.
  - PBHCI research and evaluation process which monitors Section H data collection and reporting, and examines Section H data.

- **When in synch, these 2 processes are mutually beneficial, facilitate Section H data entry, & support CQI re: population health**

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- PBHCI clinical processes and Section H:
  - SE developed **clinical workflows** to specify how, when, and by whom Section H data are collected and shared with clients.

Workflow Chart Diabetes

- Research and Evaluation Processes: NOMs Process Maps:
  - SE's PBHCI Team developed **NOMs process maps** which show how, when and by whom Section H data are to be accessed & entered in NOMs Assessments In TRAC to meet grant expectations

NOMs Process Maps

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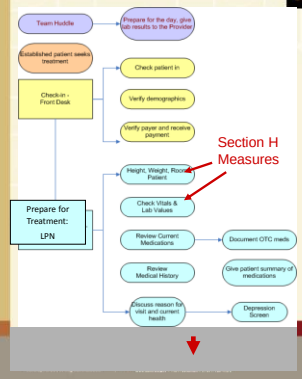

Workflow Chart
Chronic Disease Management

Diabetes

1of 2

2 of 2

- PBHCI clinical processes and Section H:
  - SE developed **clinical workflows** to specify how, when, and by whom Section H data are collected and shared with clients.

Workflow Chart Diabetes

- Research & Evaluation: NOMs and Section H Process Maps:
  - SE's PBHCI Team developed **NOMs process maps** which describe how, when and by whom Section H data are to be accessed & entered in NOMs Interviews In TRAC to meet grant expectations

NOMs Process Maps

PROCESS MAPS:

Section H Data Collection, Monitoring and Data Entry in TRAC

(in context)

- Baseline NOMs Administration and Section H Data Collection, Management & TRAC data entry
- Follow-up NOMs Assessment Administration (e.g., Reassessments) & Section H Data Collection, Management & TRAC data entry
- Back-entry of Section H Data: Collection, Management & TRAC data entry

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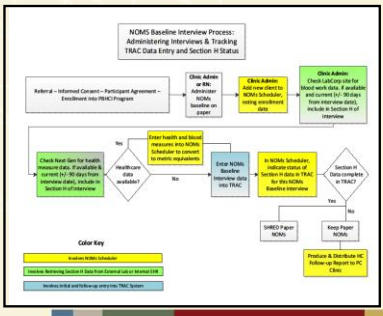

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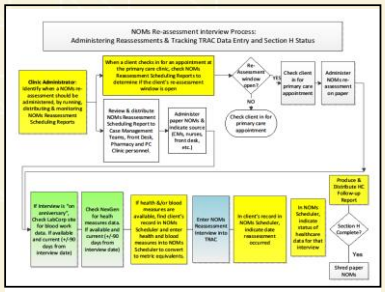

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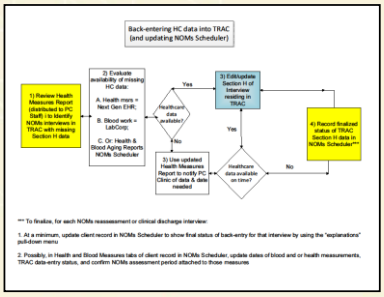

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Return to Slide #9:

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B. When are data collected?

- **During PC Clinic Appointment**
  - Health measurements recorded directly in EHR, "NexGen"
  - Blood draw taken on site (date recorded) and couriered to lab; results electronically interfaced with EHR (Meaningful Use)

C. Where are Section H (and relevant) data stored?

- NexGen
- LabCorp
- *NOMs_Scheduler™*

D. Who enters Section H data? (Changed over time.)

- NexGen: electronic interface with LabCorp for lab work; LPNs entered 'health measures' (e.g., blood pressure, height)
- *NOMs_Scheduler™*: PC Clinic Front-Desk/0.5 FTE NOMs Coordinator)
- TRAC: PC Clinic Front-Desk/0.5 FTE NOMs Coordinator)

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Strategies re: Section H

- **Use data available to support QI efforts and to make sense of what's happening with your population(s).**
  - **Next Gen (EHR)**: Client demographics, clinical profile data (e.g., cluster), Section H health indicators, and more (e.g., appts., services, payors).
  - **Adult NOMs Assessment:** demographics, single items & multi-item scales (e.g., social connectedness)
  - **NOMs Section H:** (e.g., BMI, Breath_CO)
  - **NOMs_Scheduler™ data** (e.g., completeness of Section H data in real time; Section H aging)
  - **RAND registry (Cohorts 1-3; no longer a requirement):** Episodes of care (i.e., mix of primary care, mental health, psychiatric, substance abuse, and wellness services by client within service date)

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Strategies

- **Establish internal systems of accountability for Section H collection, reporting, and use**
- **Create opportunities for PBHCI Team Members to consider and discuss Section H data as it pertains to behavioral health and vice-versa (e.g., Navigator Training, huddles, consults, Grand Rounds).**
  - Emphasize importance of Section H-type indicators
  - Synchronize clinical and research processes for collecting and reviewing results.
  - Builds PBHCI team buy-in which is essential to Section data collection and use
  - Simplify, Simplify, Simplify

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For example: "simplify, simplify, simplify" to support action-taking by individual primary care providers

Hemoglobin A1C Test Results for Patients Diagnosed with Diabetes by Provider

Provider	Under 7	7 to under 8	8 to under 9	Over 9	No Lab Results	Grand Total
Ahmed MD, Rownak	1	1				2
Allen MD, Clarissa	4	2	1	10	7	24
Barbee CNP, Laura					1	1
Fryxell, Eric	42	13	4	25	42	126
Hasan MD, Abul	3			1		4
Ho, Ai Ly	3	1		1	1	6
Hom DO, Theresa	45	9	4	19	11	88
Huber, Charles	11	9	3	15	45	83
LaRue, Khalilah	1	1			2	4
Lewis, Marsha	1					1
Tichy, Michael					1	1
Whaley, Michele	7	4	2		1	14
Grand Total	**118**	**40**	**14**	**71**	**111**	**354**

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Strategies

- **Use Section H data to identify clients at risk for physical health issues**
  - **Know cutoffs** for adults w/ SPMI e.g., Breath_CO level > 10[1]
  - Refer clients at risk to existing programs (e.g., WHAM, WMR)
  - Identify new programs (e.g., InSHAPE) and protocols (e.g., Diabetes Chronic Illness Management) to meet the needs of clients at risk
  - Implement QI processes and PDSA cycles to monitor progress at the client, group and program levels (e.g., impact of Health Coaching on HgbA1c)
- **Evaluate receipt of targeted interventions by at-risk populations and the impact of exposure to those targeted interventions on Section H outcomes**
  - Example: Breath_CO level, exposure to[1] and impact of smoking cessation intervention[2]

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[1]See slide # 25 for detail; [2]see slide #26 for detail

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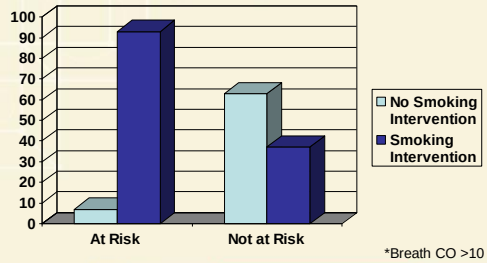
Are 'At Risk'* Clients Being Exposed to Targeted Interventions?



*Breath CO >10

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Smoking Intervention:

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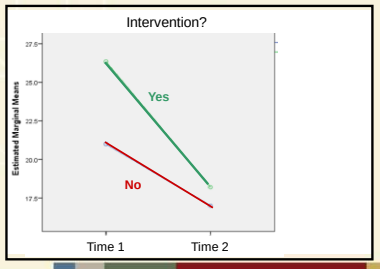
Impact of intervention on Breath CO levels for clients identified as 'at risk' at baseline (CO score > 10)?



Breath CO

Strategies

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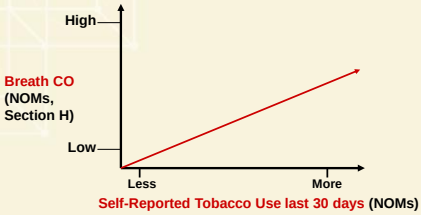
- **Compare relevant self-report measures from NOMs Interviews w/ Section H indicators. When differences exist, ask why.**



Breath CO (NOMs, Section H)

Self-Reported Tobacco Use last 30 days (NOMs)

**n = 1021, Spearman's rho = 0.62, p < .01 (1-tailed)

Strategies

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Examine H indicators for socio-demographic and clinically meaningful sub-groups

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Take advantage of TRAC report wizards to examine patterns and changes in H indicators by race, ethnicity, gender, housing status…

Section H Indicator	Number of Valid Cases	At-risk at Baseline	At-risk at Second Interview	Outcome Improved
Blood Pressure - Systolic	13,639	38.60%	36.60%	18.10%
Blood Pressure - Diastolic	13,640	31.10%	28.80%	10.30%
Blood Pressure - Combined	13,639	45.70%	44.10%	18.80%
BMI	13,114	78.50%	78.60%	44.70%
Waist Circumference	5,826	62.70%	61.50%	42.70%
Breath CO	2,373	52.50%	53.40%	30.00%
Plasma Glucose (fasting)	3,199	38.40%	40.90%	35.70%
HgbA1c	2,412	58.50%	55.10%	39.30%
HDL Cholesterol	5,119	31.90%	31.30%	37.30%
LDL Cholesterol	4,832	28.20%	24.70%	42.50%
Tri-glycerides	5,105	42.30%	41.10%	40.50%

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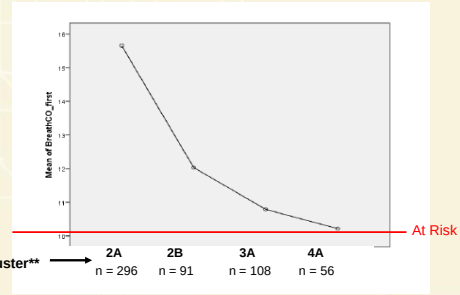
Differences in Breath CO by Cluster (at PBHCI enrollment[1])



[1]For enrollees with only a Baseline NOMs at time of analysis; **F (3,547) = 4.7, p < .01

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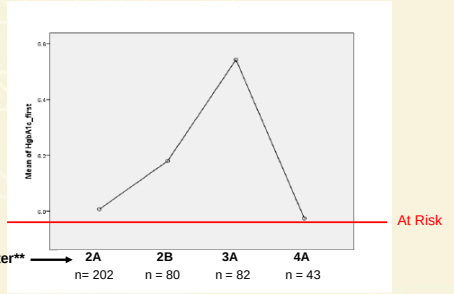
Differences in HgbA1c by Cluster (at PBHCI Enrollment[1])



[1]For enrollees with only a Baseline NOMs at time of analysis; **F (3,403) = 3.0, p < .05

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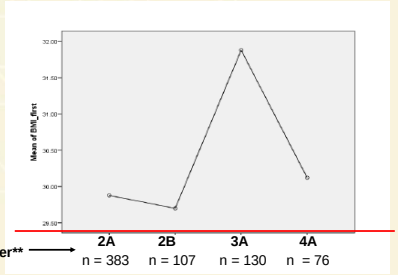
Differences in BMI by Cluster (at PBHCI enrollment[1])



[1]For enrollees with only a Baseline NOMs at time of analysis; **F (3,692) = 3.6, p < .01

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Strategies

- **Explore ways to use available data to gauge levels of integration, and its effects on Section H and behavioral health indicators**
  - e.g., examine mix of services received during "episodes of care" at the client and program level
  - e.g., administer client and/or staff self-report measures (AHRQ) to assess perceived integration
  - e.g., compare objective, service-based indicators of integration at the client – level with client self-report measures of integration
- **Compare findings from in-house analyses and experience with findings from TRAC (e.g, Section H reports by subpopulations).**

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Has the use of population based data influenced organizational policy decisions? If yes, in what way?

- Absolutely!
- For example, access to these data has motivated SE to become:
  - a PCMH
  - engaged with other healthcare provider orgs (e.g., health providers roundtable, free clinic) that we would not have
  - far more forward-looking with regard to workforce training and development strategies
  - a more attractive rotation site for colleges and universities

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TAKE HOME MESSAGE:

A strong "Climate for Implementation"[1] is key to the effective use of Section H population data to improve health outcomes

- Top management support
- Goal Clarity
- Dedicated resources
- Performance monitoring
- Access to training & TA
- Rewards/recognition for implementing
- Removal of obstacles
- Freedom to express doubts

[1](e.g., Klein, Conn & Sorra, 2001; Panzano et al, JBHS& R, 2012)

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Questions?