Implementation of SBIRT onto Electronic Health Records: From Documentation to Data

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Bureau of Alcohol and Drug Use Prevention, Care, and Treatment
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Learning objectives

- Recognize key considerations of implementing Screening, Brief Intervention, and Referral to Treatment (SBIRT) in health practices
  - Implementation models
  - Validated screening and assessment tools
  - Composition of implementation team

- Identify range of options for integrating SBIRT onto the Electronic Health Record (EHR) (e.g., templates, alerts)

- Describe how EHR integration can facilitate SBIRT delivery

- Explain how SBIRT data extracted from the EHR can be used for quality improvement activities
Outline

• NYC alcohol-related epidemiology
• What is SBIRT?
• NYC SBIRT Initiative
• Range of options for integrating SBIRT onto the EHR
• Early experience with EHR integration and current approach
• Benefits and challenges of EHR integration
• Conclusions
NYC ALCOHOL-RELATED EPIDEMIOLOGY
Alcohol consumption in NYC

- Current drinking: 55%
- Excessive drinking: 19%
- Binge drinking: 18%

Binge drinking: >3 drinks per occasion for women or >4 for men
Excessive drinking: binge drinking or > 7 drinks/week for women or > 14 drinks/week for men

Source: New York City Department of Health and Mental Hygiene Community Health Survey, 2011
One in ten hospitalizations are alcohol-related in NYC (1999-2011)
Alcohol attributed to the deaths of more than 1,700 New Yorkers in 2011

Direct effects of alcohol

- Alcoholic Liver Disease: 365
- Alcohol-related psychiatric disorders: 157
- Other Disorders: 127

Alcohol-related deaths from injury and violence

- Homicide: 242
- Suicide: 116
- Motor-vehicle accidents: 82
- Any other accidents and poisonings: 341

Other alcohol-related deaths

- Liver Disease: 125
- High Blood Pressure: 65
- Cancer: 34
- Other Conditions: 28
- Heart Disease: 23
- Stroke: 34

Most NYC adults have not discussed alcohol use with a health professional

• Only 24% of NYC adults report a doctor, nurse or other health professional had asked or talked to them about their alcohol use in the past year

• Screening for alcohol use is not a routine part of clinical care for adults in NYC

Source: New York City Department of Health and Mental Hygiene Community Health Survey, 2011
WHAT IS SBIRT?
SBIRT defined

- SBIRT is a comprehensive, integrated public health approach for providing early identification and intervention for people with risky alcohol and drug use and referral to more intensive treatment for those with substance use disorders.

- Goal: Identify patients at-risk for unhealthy substance use.

- 3 SBIRT component:
  - Screening using a validated tool (e.g., AUDIT)
  - Brief intervention
  - Referral to treatment
SBIRT is effective

• Reduces alcohol consumption and decreases health care utilization
  – Fewer hospitalizations
  – Lower costs
• Recommended by U.S. Preventive Services Task Force and Community Preventive Services Task Force
• Ranked as one of the five most effective clinical preventive services
Several validated screening tools

- National Institute on Alcohol Abuse and Alcoholism (NIAAA) Screen
- Alcohol Use Disorders Identification Test (AUDIT) and AUDIT-C
- Single-Question Drug Screen
- Drug Abuse Screening Test (DAST-10)
- CRAFFT screening tool for adolescents
The AUDIT

- Developed by the World Health Organization (WHO)
- Brief, rapid, and flexible
- Provides framework for intervention
- Focusses on alcohol use within the past year
- Identifies the need for further assessment

## AUDIT scoring

<table>
<thead>
<tr>
<th>Score</th>
<th>Risk Level</th>
<th>Intervention</th>
</tr>
</thead>
<tbody>
<tr>
<td>0-7</td>
<td>Zone 1: Low-risk use</td>
<td>Alcohol education to support low-risk use</td>
</tr>
<tr>
<td>8-15</td>
<td>Zone 2: At-risk use</td>
<td>Brief intervention—simple advice focused on reducing hazardous drinking</td>
</tr>
<tr>
<td>16-19</td>
<td>Zone 3: High-risk use</td>
<td>Brief intervention—simple advice, brief counseling, and continued monitoring</td>
</tr>
<tr>
<td>20-40</td>
<td>Zone 4: Very high risk, probable alcohol use disorder</td>
<td>Referral to specialist for diagnostic evaluation and treatment</td>
</tr>
</tbody>
</table>

Brief intervention — The basics

• Duration brief → 5-15 minutes
• What is a brief intervention?
  – Motivational discussion concerning the meaning of results from the screening
• Provides the patient with feedback about their substance use
• Motivates patient to take action
• Focuses on increasing commitment to make change
NYC SBIRT INITIATIVE
NYC SBIRT Initiative

• 2012-present

• Goal to promote SBIRT in NYC primary care practices

• Systems approach

• To date, have assisted implementation at >50 practice sites across NYC

• Implementation onto 4 EHR platforms
  – EPIC
  – eClinicalWorks
  – GE Centricity
  – MDLAND
EPIC SBIRT implementation guide

- A resource to guide practices in integration SBIRT tools onto EPIC EHRs
Range of implementation sites

- Federally Qualified Health Centers
- Community Health Centers
- Small practices (1-2 providers)
- School-Based Health Centers
- Emergency Departments
Components of our model

• Outreach to engage practices
• Monthly 4-hour trainings
• Technical assistance (TA)
  1. Identification of implementation team
  2. Workflow assessment
  3. Electronic Health Record (EHR) integration
  4. Billing and coding instruction
  5. Referrals
• Ongoing practice coaching and TA
Identification of implementation team

- Administrators
- Clinical staff
  - Physicians, NPs, PAs, nurses, social workers, medical assistants
- Informatics staff
- Billing staff
Important implementation considerations

• Training and certification required for billing
  – Licensed staff

• Potential barriers
  – Time, workflow, lack of knowledge, stigma

• Variety of implementation models
SBIRT implementation models

- Specialist model
  - Dedicated non-physician interventionist performs all components

- Vital signs model
  - Nurse or medical assistant screens and primary care provider (PCP) delivers brief intervention

- Systems approach
  - Tasks distributed broadly throughout regular workflow
Systems-based approach for SBIRT implementation

- Distribute tasks throughout regular workflow
- Minimize time spent by providers/staff on screening and assessment
- Deliver clinically actionable information to primary care physician at the point of care
- Integrate with electronic health records
- Appropriately target behavioral health and specialty care referrals
Workflow assessment

• Physical space
  – Waiting area, triage, patient rooms
• Steps of patient flow
• Routine documentation practices
  – EHR versus paper
• Identify key staff for SBIRT delivery
INTEGRATION OF SBIRT ONTO THE EHR
Range of options for integration

• Alerts
  – Need for yearly screening
  – Clinical decision support

• Templates
  – Screening tools (pre-screen and assessment)
  – Brief intervention documentation
  – Procedure and visit codes

• Links for online treatment locators
Early experience integrating onto the EHR

• Collaborated with the DOHMH’s Primary Care Information Project, an initiative to improve quality of care in underserved communities through the use of health information technology

• Providers interested in EHR integration

• Screening tools placed in Social History

<table>
<thead>
<tr>
<th>Social History: Drug/Alcohol: AUDIT</th>
</tr>
</thead>
<tbody>
<tr>
<td>How often do you have a drink containing alcohol? {…}</td>
</tr>
<tr>
<td>How many standard drinks containing alcohol do you have on a day when you drink? {…}</td>
</tr>
<tr>
<td>How often do you have six or more drinks on one occasion? {…}</td>
</tr>
<tr>
<td>Subtotal: {…}</td>
</tr>
<tr>
<td>How often during the last year have you found that you were not able to stop drinking once you had started? {…}</td>
</tr>
<tr>
<td>How often during the last year have you been unable to do what was normally expected because of drinking? {…}</td>
</tr>
<tr>
<td>How often during the last year have you needed a first drink in the morning to get yourself going after heavy drinking? {…}</td>
</tr>
<tr>
<td>How often during the last year have you been unable to remember what happened the night before because you had been drinking? {…}</td>
</tr>
<tr>
<td>Have you or someone else been hurt as a result of your drinking? {…}</td>
</tr>
<tr>
<td>Has anyone been concerned about your drinking or suggested you cut down? {…}</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Social History: Drug/Alcohol: DAST-10</th>
</tr>
</thead>
<tbody>
<tr>
<td>Have you used drugs other than those prescribed for medical reasons in the past 12 months? Yes/No</td>
</tr>
<tr>
<td>Do you use more than one drug at a time? Yes/No</td>
</tr>
<tr>
<td>Is it difficult for you to stop using drugs when you want to? Yes/No</td>
</tr>
<tr>
<td>Have you ever had blackouts or flashbacks as a result of drug use? Yes/No</td>
</tr>
<tr>
<td>Does anyone ever complain about your involvement with drugs? Yes/No</td>
</tr>
<tr>
<td>Have you neglected your family because of your use of drugs? Yes/No</td>
</tr>
<tr>
<td>Have you engaged in illegal activities in order to obtain drugs? Yes/No</td>
</tr>
<tr>
<td>Have you ever experienced withdrawal symptoms when you stopped taking drugs? Yes/No</td>
</tr>
<tr>
<td>Have you had medical problems as a result of your drug use? Yes/No</td>
</tr>
</tbody>
</table>

Total Score 1-10 (count “Yes” answers) 00
Early experience — brief intervention

- Brief intervention entered as structured text

**Examination:**

**Intervention**

**AUDIT Brief**

Assessed the patients attitude toward their alcohol and/or substance use utilizing the: {...}
The patient reports the pro's of continued use are: {...}
The patient reports the "not-so-good-things" about their use are: {...}
The patient reports the pros(good things) of change would be: {...}
The patient reports the not-so-good thing about change would be: {...}
Assessed the patients motivation to change utilizing the: {...}
On a scale from 1 to 10, the patient reports importance to change was: 00
Patient explained that it was not a lower number due to: {...}
On a scale from 1-10, the patient reports their readiness to change was: 00
Action Plan: {...}
Early experience — Alerts in the EHR

Please complete SBIRT screening in Mental Health section of navigator.

Overview DRTLA History CDSS Labs DI Templates
Zztest, Marcy 51 Y, F as of 01/30/2013
CDSS Alerts
Alcohol use screening

Registry Alerts

DAST SCREENING (LOCATE IN HPI SECTION)

Registry Alerts

ZONE FOUR (Scored 6-10 on DAST)

BestPractice Advisory - Zaiz, Zach

Patient identified to be in Zone 3 of substance use. Please complete brief intervention in SmartSet.

Open SmartSet: SBIRT ZONE 3 SUBSTANCE preview

Accept  Cancel
Common symptoms of "Alert Fatigue"
Lessons learned from early experience

• Interpretation of screening score needed
• Better if full screening tool populates off of positive pre-screens only (not off of negative pre-screens)
• Assessment result displayed numerically (zone designation needed)
• Brief intervention could be tailored to zone
• Alerts should be reinforced through training with clinical staff
Putting what we learned into practice...
Screening tools

**Social History:**

**Drug/Alcohol:**

**AUDIT**

How often do you have a drink containing alcohol? {...}

How many standard drinks containing alcohol do you have on a day when you drink? {...}

How often do you have six or more drinks on one occasion? {...}

Subtotal: {...}
Assessments (full screens)
Brief intervention — Zone 1
<table>
<thead>
<tr>
<th>Question</th>
<th>Possible values</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Pros and Cons</strong>&lt;br&gt;The patient reports the pro's of continued use are:</td>
<td>• Relaxation&lt;br&gt;• Chance to meet with peers</td>
</tr>
<tr>
<td><strong>Pros and Cons</strong>&lt;br&gt;The patient reports the “not-so-good-things” about their use are:</td>
<td>• Hangovers&lt;br&gt;• Lateness for work/school&lt;br&gt;• Pressure from family to stop or cut down</td>
</tr>
<tr>
<td>Provider “weighs” the PRO’s and CON’S for patient</td>
<td></td>
</tr>
<tr>
<td><strong>Information and Feedback</strong>&lt;br&gt;Provided patient with information regarding:</td>
<td>• NIAAA standard drinking guidelines&lt;br&gt;• Alcohol use and health&lt;br&gt;• And/or use of illegal drugs effects on health</td>
</tr>
<tr>
<td><strong>Readiness Ruler</strong>&lt;br&gt;On a scale from 1-10 the patient reports their importance to change was:</td>
<td>• Numeric</td>
</tr>
<tr>
<td><strong>Readiness Ruler</strong>&lt;br&gt;Patient explained that it was not a lower number due to:</td>
<td>• family concerns over use&lt;br&gt;• school/employment jeopardy&lt;br&gt;• mental/physical health concerns&lt;br&gt;• financial concerns&lt;br&gt;• other:</td>
</tr>
<tr>
<td><strong>Readiness Ruler</strong>&lt;br&gt;On a scale of 1-10 the patient reports their confidence in their ability to change is:</td>
<td>• Numeric</td>
</tr>
<tr>
<td><strong>Action Plan</strong>&lt;br&gt;Stage of change</td>
<td>• Pre contemplation&lt;br&gt;• Contemplation&lt;br&gt;• Preparation&lt;br&gt;• Action&lt;br&gt;• Maintenance&lt;br&gt;• Relapse</td>
</tr>
<tr>
<td><strong>Action Plan</strong>&lt;br&gt;Action plan:</td>
<td>• Reduction of use&lt;br&gt;• Abstinence&lt;br&gt;• Identification of supports&lt;br&gt;• Additional resources</td>
</tr>
</tbody>
</table>
Brief intervention — Follow-up plan
Order sets can be used for brief intervention.

Zone 3 (Score of 3-5 on DAST): Intermediate Level of Problem Drug Use

Substance use at this stage is problematic to patient, family and/or support system. The patient may have already had some negative experiences with using drugs. There is a high probability that the patient's drug use will get worse without appropriate intervention.

Zone 3 (Score of 3-5 on DAST): Intermediate Level of Problem Drug Use - Provided patient with feedback on the DAST score and general education about substance use. Detailed information provided about current risks to self and support network. Secondary prevention education provided, including strategies/mechanisms to stop drug use.
Assessment and procedure code

Social History:
- AUDIT Screen
- Full AUDIT How many standard drinks containing alcohol do you have on a day when you drink? ___. How often do you have six or more drinks on one occasion? ___. AUDIT-C Score ___. AUDIT-C Interpretation (Female or >65 score of 3+, Male score of 4+) ___. How often during the last year have you found that you were not able to stop drinking once you had started? ___. How often during the last year have you been unable to do what was normally expected because of drinking? (work, pay bills) ___. How often during the last year have you needed a first drink in the morning to get yourself going after heavy drinking? ___. How often during the last year have you had a feeling of guilt or regret after drinking? ___. How often during the last year have you been unable to remember what happened the night before because you had been drinking? ___. Have you or someone else been hurt as a result of your drinking? ___. Has anyone been concerned about your drinking or suggested you cut down? ___. Total AUDIT Score ___.
- ROS: ^

Objective:
- Vital:
- Past Results:
- Examination:
- Physical Examination: ^

Assessment:
- Assessment: ^
  - Screening for alcoholism - V79.1 (Primary)

Plan:
- Treatment:
  - Screening for alcoholism
    - Notes: Screened patient with an AUDIT/DAST and provided counselling.
- Procedures:
- Immunizations:
- Therapeutic Injections:
- Diagnostic Imaging:
- Lab Reports:
- Preventive Medicine:
- Next Appointment:

Billing Information:
- Visit Code:
- Procedure Codes:
  - H0049 ALCOHOL/DRUG SCREENING

Care Plan:
- Problems:
Using EHR data for quality improvement activities

• Structured data can be extracted for reports

• Possible metrics
  – Total # screens
  – Total # assessments
  – Total # brief interventions
  – Total # of referrals

• Feedback to implementation team during practice coaching sessions
SBIRT and changing health care landscape

• National
  – Affordable Care Act
    • Screening parity requirement (including for alcohol use disorder)
    • Treatment for substance use is an essential health benefit
    • Expand behavioral health benefits for 62 million Americans
    • Health Homes provide intensive care coordination with focus on behavioral health
  – Performance-incentivized care
    • Patient-Centered Medical Homes (PCMH)

• New York State-specific
  – New York State Medicaid Redesign
    • Behavioral health carved into managed, capitated benefit
  – Delivery System Reform Incentive Payment Program (DSRIP)
Benefits of SBIRT EHR integration

• Facilitate universal screening for substance use
• Opportunity for clinical decision support
• Utilization of all levels of staff
• Promotes use of validated screening tools
• Assists care coordination
• Utilization for quality improvement and health reform initiatives
Challenges to SBIRT EHR integration

• Competing priorities (lack of time)
• Limited staffing and resources
• Reimbursement for SBIRT services
• Providers more familiar with screen and refer approach than brief intervention model
Conclusion

• Importance of multi-disciplinary implementation team
• Workflow should be flexible and tailored to the practice site
• A range of options exist for integrating SBIRT onto the EHR
• EHR integration can facilitate SBIRT delivery
  – Regular training and support from leadership also important
• SBIRT data extracted from the EHR can be used for quality improvement activities
Thank you!

NYC DOHMH

- Dr. Hillary Kunins
- Dr. Jessica Kattan
- Primary Care Information Project/NYC REACH
Questions?