Enhancing the Delivery of Alcohol and Drug Screening, Brief Intervention, Referral, and Treatment (SBIRT) Services in Primary Care Settings

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Outline

- Continuum of substance use and primary care epidemiology
- Pathophysiology of addiction
- Rationale for providing alcohol and drug SBIRT services in healthcare settings
- Barriers to delivering SBIRT services
- Principles and components of WIPHL
- Policy barriers to effectiveness and sustainability

Continuum of Substance Use

<table>
<thead>
<tr>
<th>Abstinence</th>
<th>Low risk use</th>
<th>Use</th>
<th>Consq.</th>
<th>Consequences</th>
</tr>
</thead>
<tbody>
<tr>
<td>Alcohol only</td>
<td>12 oz. beer</td>
<td>5 oz. wine</td>
<td>1.5 oz. liquor</td>
<td></td>
</tr>
</tbody>
</table>

Standard drinks

<table>
<thead>
<tr>
<th>Low-Risk Drinking (NIAAA, 1995)</th>
<th>Age &amp; Gender</th>
<th>Per Week</th>
<th>Per Occasion</th>
</tr>
</thead>
<tbody>
<tr>
<td>Men ≤65 yrs</td>
<td>≤14</td>
<td>≤4</td>
<td></td>
</tr>
<tr>
<td>Women ≤65 yrs</td>
<td>≤7</td>
<td>≤3</td>
<td></td>
</tr>
<tr>
<td>≥65 yrs</td>
<td>≤7</td>
<td>≤1</td>
<td></td>
</tr>
</tbody>
</table>

Consequences

1. Biomedical
2. Mental health
3. Family
4. Friends
5. Work/School
6. Legal
7. Financial
8. Religious & spiritual
Continuum of Substance Use

Abstinence  Low risk use  At-risk use  Abuse  Dep

Alcoholism
Addiction

Use –  Alc only +  +  +
Conseq. –  –  –(*) + ++ plus...
Rep. –  –  –  +  +

Loss of control
Preoccupation
Compulsive use
Physical dependence

Loss of Control

- Hijacking of the pleasure-reward system
- System’s function is to drive survival and procreation behaviors
- Addiction: the system drives substance use
- Propensity for hijacking is determined by genetics and environment

Addiction is a Treatable Brain Disease

Primary Care Epidemiology of Substance Use

1 in 4 primary care patients in Wisconsin should modify their drinking or drug use for their health and well-being.

25%

Risky drinking and drug use are common and cause great harm.

SBIRT services can help!

SBIRT: Screening, Brief Intervention, Referral to Treatment

Brief Screen

- Rapid
- Proactive
- Identify patients
  - with a condition
  - at risk for a condition

BEFORE obvious manifestations occur.
Single Alcohol Screen

When is the last time you had more than

Men: 5 drinks?
Positive: Within the last 3 months
86% sensitivity and specificity

Vinson, Annals of Family Medicine, 2004

Single Alcohol Screen

When is the last time you had more than

Women: 4 drinks?
Positive: Within the last 3 months
86% sensitivity and specificity

Vinson, Annals of Family Medicine, 2004

Two-Item Conjoint Screen

1. In the last year, did you ever drink or use drugs more than you meant to?
2. In the last year, did you ever feel you should cut down on your drinking or drug use?

80% sensitivity and specificity

Brown, Journal of the American Board of Family Practice, 2001

Brief Assessment

For patients who:
- Have a positive brief screen
- Otherwise raise clinical concern

Definitively categorizes patients’ substance use

Abstinence
Low-risk use
At-risk use
Abuse
Brief Assessment Tool

Alcohol, Smoking and Substance Involvement Screening Test

- 10 categories of substances
- 7 questions on each category
- Questions on use, consequences, and dependence symptoms
- If initial question on lifetime use is negative, skip the next 6 questions

WHO ASSIST Working Group, Addiction, 2002

Primary Care Management

Low-Risk Drinking (NIAAA, 1995)

<table>
<thead>
<tr>
<th>Age &amp; Gender</th>
<th>Per Week</th>
<th>Per Occasion</th>
</tr>
</thead>
<tbody>
<tr>
<td>Men &lt;65 yrs</td>
<td>≤14</td>
<td>≤4</td>
</tr>
<tr>
<td>Women &lt;65 yrs</td>
<td>≤7</td>
<td>≤3</td>
</tr>
<tr>
<td>≥65 yrs</td>
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</tr>
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Primary Care Management

Abstinence
Low risk use
Reinforcement

Reinforce healthy behaviors

Brief Intervention

Definition:
- 5- to 15-minute session
- 1 to 3 follow-ups
- Goal is to elicit a behavior change

Steps:
- Feedback
- Education
- Recommendation
- Negotiation
- Secure agreement
- Set follow-up
**Brief Intervention**

- Over 50 randomized controlled trials
- Subjects: at-risk and problem drinkers
- Control subjects improved – Screening and assessment can elicit behavior change
- Experimental subjects improved more:
  - Self-reported drinking
  - Hospital and ER visits
  - Liver function tests
  - Car crashes
  - Work attendance
  - Criminal justice events

*Fleming, JAMA, 1997; Gentilello, Annals of Surgery, 1999*

**Per Patient Who Receives Services**

<table>
<thead>
<tr>
<th>Cost savings in health care, car crashes, criminal justice</th>
<th>$1,146</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cost of services</td>
<td>250</td>
</tr>
<tr>
<td><strong>Net Cost Savings</strong></td>
<td>$946</td>
</tr>
</tbody>
</table>

*Fleming, Medical Care, 2000*

**Brief Intervention**

- Brief intervention after alcohol-related injury prevents 47% to 48% of ER visits & hospitalizations for reinjury
- Cost savings:
  - For each patient who is screened $89
  - For each patient who receives an intervention $330
  - For each dollar spent $3.81

*Gentilello, Annals of Surgery, 1999 & 2005*

**SBIRT Evaluation in Washington State**

- SBIRT services provided in Emergency Departments in Seattle and environs
- Researchers had access to healthcare utilization database for Medicaid disabled
- Results
  - $238 reduction in hospitalizations pmpm
  - $185 reduction in total charges pmpm

*Estee, WA Dept of Social and Health Services, 2007*
Primary Care Management

Abstinence
Low risk use
At-risk use
Abuse
Brief Intervention
Reinforcement

Treatment

Is it effective???

Criteria
• Complete cure
• Permanent improvement

Given these criteria, is treatment effective for hypertension, diabetes, and asthma?

YES
as effective as treatment for HTN, diabetes, & asthma

Pharmacotherapy

Alcohol Dependence
• Disulfiram – Antabuse®
• Naltrexone – Revia® – Vivitrol®
• Acamprosate – Campral®
• Topiramate – Topamax®
• Ondansetron – Zofran®

Opioid Dependence
• Methadone – Dolophine®
• Buprenorphine – Suboxone® – Subutex®
Recap - SBIRT Works!

Screening and assessment accurately categorize substance use.

- Abstinence: 10%
- Low risk use: 9%
- At risk use: 6-7%
- Abuse: 6-7%

Brief intervention decreases risky and problem drinking and drug use and related harms and costs.

Conventional treatment is effective for dependence. Medications are effective for alcohol and opioid dependence.

SBIRT Recommendations

National Institute on Alcohol Abuse and Alcoholism 1995
United States Preventive Services Task Force 1996
American Society of Addiction Medicine 1997
American Medical Association 1999
American Academy of Pediatrics 2001
Canadian Task Force on Preventive Health Care 2001
National Quality Forum 2007

Rankings of Preventive Services

National Commission on Prevention Priorities

USPSTF-recommended services ranked by:

- Clinically preventable burden (CPB) - How much disease, injury, and death would be prevented if services were delivered to all targeted individuals?
- Cost-effectiveness (CE) - return on investment - How many dollars would be saved for each dollar spent?


<table>
<thead>
<tr>
<th>#</th>
<th>Service</th>
<th>CPB</th>
<th>CE</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Aspirin - Men - 40+, Women - 50+</td>
<td>5</td>
<td>5</td>
</tr>
<tr>
<td>2</td>
<td>Childhood immunizations</td>
<td>5</td>
<td>5</td>
</tr>
<tr>
<td>3</td>
<td>Smoking cessation</td>
<td>5</td>
<td>5</td>
</tr>
<tr>
<td>4</td>
<td>Alcohol screening &amp; intervention</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>5</td>
<td>Colorectal cancer screening</td>
<td>4</td>
<td>4</td>
</tr>
<tr>
<td>6</td>
<td>Hypertension screening &amp; treatment</td>
<td>5</td>
<td>3</td>
</tr>
<tr>
<td>7</td>
<td>Influenza immunization</td>
<td>4</td>
<td>4</td>
</tr>
<tr>
<td>8</td>
<td>Vision screening - 65+</td>
<td>3</td>
<td>5</td>
</tr>
<tr>
<td>9</td>
<td>Cervical cancer screening</td>
<td>4</td>
<td>3</td>
</tr>
<tr>
<td>10</td>
<td>Cholesterol - men 35+, women 45+</td>
<td>5</td>
<td>2</td>
</tr>
</tbody>
</table>

### Rankings of Preventive Services

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<th>#</th>
<th>Service</th>
<th>CPB</th>
<th>CE</th>
</tr>
</thead>
<tbody>
<tr>
<td>11</td>
<td>Pneumococcal immunization</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>12</td>
<td>Breast cancer screening</td>
<td>4</td>
<td>2</td>
</tr>
<tr>
<td>13</td>
<td>Chlamydia screening - women &lt;25</td>
<td>2</td>
<td>4</td>
</tr>
<tr>
<td>14</td>
<td>Calcium supplementation - women</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>15</td>
<td>Vision screening - preschool children</td>
<td>2</td>
<td>4</td>
</tr>
<tr>
<td>16</td>
<td>Folic acid supplementation - women</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>17</td>
<td>Obesity screening - adults</td>
<td>3</td>
<td>2</td>
</tr>
<tr>
<td>18</td>
<td>Depression screening - adults</td>
<td>3</td>
<td>1</td>
</tr>
<tr>
<td>19</td>
<td>Hearing screening - adults 65+</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>20</td>
<td>Injury prevention - young children</td>
<td>1</td>
<td>3</td>
</tr>
</tbody>
</table>


### Rankings of Preventive Services

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<tr>
<th>#</th>
<th>Service</th>
<th>CPB</th>
<th>CE</th>
</tr>
</thead>
<tbody>
<tr>
<td>21</td>
<td>Osteoporosis screening</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>22</td>
<td>Cholesterol - high-risk, younger</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>23</td>
<td>Diabetes screening - adults at risk</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>24</td>
<td>Diet counseling - adults at risk</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>25</td>
<td>Tetanus-diphtheria booster - adults</td>
<td>1</td>
<td>1</td>
</tr>
</tbody>
</table>


### Receipt of Services

- 21% of individuals with substance use disorders receive services per year in Wisconsin
- Most patients in the US do not receive screening or intervention services
- National study of quality of care for 30 conditions
  - Average adherence to evidence-based recs = 54%
  - Adherence for alcohol dependence = 10% (lowest)

CHPPE, 1999; Arndt, 2002; Friedmann, 2000; Weisner, 2003; McGlynn, 2003

### Barriers to SBIRT Delivery

- Reimbursement

Medicaid HCPCS Codes - as of Jan 2007
  - H0049 (not implemented in WI) - $24.00
  - H0050 (not implemented in WI) - $48.00
  - BadgerCare Plus pays for alcohol & drug screening, intervention, and referral for pregnant women (H0002 & H0004)

Medicare G-codes - as of Jan 2008
  - G0396 - 15 to 30 minutes - $29.42
  - G0397 - > 30 minutes - $57.69

CPT codes - as of Jan 2008
  - 99408 - 15 to 30 minutes - $33.31
  - 99409 - > 30 minutes - $65.51

Barriers to SBIRT Delivery

- Reimbursement
- Limited training & skills
- Pessimistic attitudes
- Time

Number of hours per day it would take the average primary care clinician to deliver all USPSTF-recommended services to the average panel of patients: 7.4


Barriers to SBIRT Delivery

- Reimbursement
- Limited training & skills
- Pessimistic attitudes
- Time

- Systematic brief screening by written questionnaire or IVR system
- All other services delivered by dedicated, trained, and supported health educators
- Computer system guides delivery of all services, ensures fidelity, and supports QI

Wisconsin Initiative to Promote Healthy Lifestyles

Funded by the US Substance Abuse and Mental Health Services Administration

Administered by the Wisconsin Department of Health and Family Services, Division of Mental Health and Substance Abuse Services

Coordinated by the University of Wisconsin School of Medicine and Public Health Department of Family Medicine

$12.6 million - September 2006 to August 2011

WIPHL Goal

Durably enhance the delivery of evidence-based, culturally competent alcohol and drug screening, brief intervention, referral, and treatment services in healthcare settings throughout Wisconsin
WIPHL Clinics

Umbrella Organizations
- Aurora Health Care
- Marshfield Clinic
- Medical College of WI
- Menominee Tribe
- Mercy Health System
- Polk County Health Department
- St Croix Tribe
- St Joseph Community Health
- UW Health

WI Primary Healthcare Assn

Likely to join in spring or fall

Eligibility for WIPHL

- Receive care at participating site
- Year 1: 18 years old and up, speak English
- Year 2: Speak Spanish or Hmong
- Year 3: Adolescents

WIPHL SBIRT Protocol

Administer brief screen yearly

<table>
<thead>
<tr>
<th>Alcohol and Drug Items</th>
<th>Other Topics</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Men: Last time you drank &gt; 5 std drinks</td>
<td>Tobacco use</td>
</tr>
<tr>
<td>Women: Last time you drank &gt; 4 std drinks</td>
<td>Diet</td>
</tr>
<tr>
<td>Age &gt; 65: Last time you drank &gt; 1 std drink</td>
<td>Exercise</td>
</tr>
<tr>
<td>2. Thought you should cut down on drinking?</td>
<td>Weight</td>
</tr>
<tr>
<td>3. Drank or used drugs more than you meant to?</td>
<td>Depression</td>
</tr>
<tr>
<td>4. Used recreational drugs or used potentially addictive Rx drugs for non-medical reasons?</td>
<td>Violence</td>
</tr>
</tbody>
</table>

Clinic Staff

Health Educator

Reinforcement

Administer ASSIST/NIAAA-3

Alcohol, Smoking and Substance Involvement Screening Test
- Seven questions on each of 10 categories of substances
- Negative response on lifetime use → skip other questions
- NIAAA questions
- Quantity/frequency of alcohol use

Result: Likely dependence, abuse, risky use, low-risk/abstinence
WIPHL SBIRT Protocol

Administer brief screen yearly

Administer ASSIST/NIAAA-3

Dependence

RT

Severe Abuse

BI

Mild-moderate Abuse

BI

At-risk Use

Clinic Staff  Health Educator  Treatment Liaison  Evaluation Staff

Treatment Prep

Treatment

10% sample

6-mo F/U Int.

Reinforcement

Reinforcement

Brief screens

Full screens

Treatment referrals

Treatment enrollments

Service Delivery

as of March 31, 2008

Brief Screens:  30,609

Full Screens:  4,312

Treatment Referrals:  104

Treatment Enrollments:  32

Quality Assurance/Improvement

• Two-week health educator training
• Computer tablet guides services & QI data collection
• Final exam and skills performance assessment
• Ongoing support from WIPHL Central Office
  • Ongoing review of computer tablet records
  • Audiotape reviews
  • Monthly & ad lib coaching
  • Weekly conf calls
  • Quarterly meetings
• Monitor patient satisfaction data
• Monitor service delivery & substance use outcomes

Plan for Sustainability

Financial
• Help clinics obtain reimbursement
• Identify support for central coordination

Create demand for SBIRT services
• Educate major payers - employers and gov't
• Demonstrate cost offsets

Conduct professional education

Change practice standards
Policy Issue – Treatment Barriers

- **Financing**
  - Private plans - caps, multiple steps
  - Public funding - limits, multiple steps
- **Access** - all areas, especially rural areas
  - Waiting lists
  - Lack of detox services
  - Lack of particular kinds of treatment services
  - Lack of evidence-based services
  - Unmet treatment need - Alcohol: 442,000
  - Drugs: 122,000

Policy Issue – Reimbursement

- Reimbursement by Wisconsin Medicaid
  - CMS approved H-codes in Jan 2007
  - Wisconsin Medicaid reimburses for SBIRT services only for pregnant women
  - H-code reimbursement in next biennial budget?
- Reimbursement by private health plans
  - Cannot bill Medicare unless private plans are billed
  - Nationally, 86/150 plans reimburse
  - Will Wisconsin’s private health plans reimburse?

Policy Issue - Children’s Code

- Children’s code 48.981(2)(d)
  - Optional reporting of pregnant women with alcohol or drug dependence
  - Ethics requires informing women
  - Pregnant women do not reveal accurate information about their alcohol & drug use
- Exempting health professionals would
  - Decrease reports by 33
  - Make SBIRT more effective for 11,000+ pregnant women who drink alcohol and use drugs

Conclusion

- 1 in 4 primary care patients would benefit from less drinking and drug use
- All primary care patients should receive SBIRT services
- WIPHL is providing evidence-based services to many Wisconsinites
Interested in WIPHL?

www.wiphl.org
rlbrown@wisc.edu

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