Substance use prevention for adolescents:
The Icelandic Model

Alfgeir Logi Kristjansson, PhD, MSc
Associate Professor, West Virginia University, School of Public Health, USA
Senior Researcher, ICSRA, Reykjavik University, Iceland
Iceland: Positive development over 20 years (10th grade students)

- Drunk past 30 days
- Daily smoking
- Tried cannabis
What is Prevention?

Traditional division:

Primary: **Prevention of initiation** – long term, often community-based or organizational (e.g., in schools)
*Example*: Organize and follow behavioral rules for kids and offer structured activities

Secondary: **Behavior change** – intermediate, often through programs
*Example*: Smoking cessation programs

Tertiary: **Mitigating life threatening circumstances** – immediate, usually through hospitalization/institutionalization
*Example*: Treating people addicted to drugs in institutional settings
The Icelandic Prevention Model is a Primary Prevention approach

- Why primary prevention?
  1. Early initiation most likely to escalate into serious addiction problems
  2. The best return on investment is through primary prevention
  3. Family and community breakdown prevented
  4. Common sense
Central question for primary prevention: How does youth substance use begin?
Three potential scenarios for drug use initiation in youth:

1. Individual makes a conscious and isolated decision to begin using drugs – **almost impossible**

2. Individual is forced to use drugs through peers and/or family – **not very likely**

3. Individual makes a semi-conscious decision in the context of peers and social circumstances that favor drug use – **most likely**
But....

What have been the dominant forms of primary prevention?

To address substance use as a conscious and isolated individual decision

Typically through instructional and short-term programs
In sum. The problem is...

Prioritizing tertiary prevention

Using ineffective methods to prevent or delay substance use onset

Assuming that individual decisions are made in isolation from their social influences
Sample profile – two 11 year old youth

• Youth 1
  • Lives in a deprived area with relatively high crime rates
  • Parents separated, mother works two minimum wage jobs
  • Attends a chronically under-performing and underfunded public school
  • Peers commonly subject to substance abuse at home
  • Has limited opportunities for participation in organized recreational and extracurricular activities at school and in the community

• Youth 2
  • Lives in a middle-class area with low crime rates
  • Parents cohabitating, both full time working professionals
  • Attends an average performing and average funded public school
  • Peers unlikely to be subject to substance abuse at home
  • Has opportunities for participation in a variety of organized recreational and extracurricular activities in the school and community
Three major determinants

Parents

Neighborhood/area/village/town/city

School
Over to Iceland...
The situation in the mid 90s
Social Ecological Model: Multiple layers of impact

Sallis et al. 2006. Ann Rev Public Health
The *causes of the causes* of substance use - community responsibility => community building approach.

Causes of the causes

Social and environmental risk and protective factors

“Causes” of substance use

Lack of purpose, boredom, depressed affect, low school engagement, poor choices

Substance use
Assumptions
IPM assumption #1:

Substance use initiation risk is NOT randomly distributed in the population?
IPM assumption #2:

Behavior change is notoriously difficult to accomplish
IPM assumption #3:

Substance use prevention: There are no quick fixes or simple solutions

Short term programs are not likely to lead to population changes
The Model
IPM: Three pillars

Not a program

Everything is data driven

Collaboration is key

Goal: Change in social norms
In a nutshell, to speed-up and integrate..
Aims: What unfortunately often tends to happen:
Research ➔ Policy ➔ Practice

Don’t steer blind...
Aims: What we would like to see happen:
Research ↔ Policy ↔ Practice

...but set sail based on knowledge!

...repeatedly and consistently over time
Policy and population impact:

- Less individual effort = greater population impact
- More individual effort = less long-term impact

“Personal life-style is socially conditioned... Individuals are unlikely to eat very differently from the rest of their families and social circle... It makes little sense to expect individuals to behave differently than their peers; it is more appropriate to seek a general change in behavioral norms and in the circumstances which facilitate their adoption”
Policy and population impact:

- Less individual effort = greater population impact
- More individual effort = less long-term impact

- “Personal life-style is socially conditioned... Individuals are unlikely to eat very differently from the rest of their families and social circle... It makes little sense to expect individuals to behave differently than their peers; it is more appropriate to seek a general change in behavioral norms and in the circumstances which facilitate their adoption”
IPM: Ecological domains of intervention focus

- Individual
- Peer group
- School
- Leisure time
- Family

- Local school community
- County
- State
Focus and aims

• Primary substance use prevention

• Main focus on the adolescent social environment - substance use is perceived to be socially produced

• Focus on environmental change over time in relevant age-groups (for example, 8th-10th graders), not behavior changes within cohorts

• Work with well-established risk and protective factors within the four domains

• Not time-limited, but an ongoing effort to alter society on behalf of young people

• Quick and consistent dissemination and translation of annually updated results as a diagnostic and monitoring tool for policy makers, administrative leaders and practitioners (incl. parents)

• Aims to create a collaborative dialogue between researchers, policy makers and practitioners, to empower communities and practitioners to take ownership of the issue at the local level

• Consistent, annual, repetitive cycle
Iceland: Positive development over 20 years (10th grade students)

- Drunk past 30 days
- Daily smoking
- Tried cannabis
Heavy episodic drinking in the last 30 days

ESPAD 2015

- Iceland: 8%
- Norway: 19%
- Sweden: 22%
- Finland: 23%
- Denmark: 56%
Alcohol onset – From the 2009 Nordic Youth Study

![Alcohol onset graph from the 2009 Nordic Youth Study](image)
Rates of students in 9th and 10th grade who spend time (often/almost always) with their parents during weekdays.

Parents and children spend more time together.
“My parents know where I am in the evenings” (applies very or rather well to me) 9th and 10th grade
Rates of students in 9th and 10th grade that participate in sports with a team or club four times per week or more often.
Rates of students in 9th and 10th grade who have been outside after 10 pm, 3 times+ in the past week

Less late outside hours

Rates of students in 9th and 10th grade who have been outside after 10 pm, 3 times+ in the past week
Other associated factors...
Reminder: No drugs!
Measures on bullying (10th graders)

- Group, teasing an individual, 1+
- Group, teasing an individual, 2+
- Group, hurting an individual, 1+
- Group, hurting an individual, 2+
Measures on theft (10th graders)

- Stolen sth worth less than 5,000 ISK, % 1+
- Stolen sth worth less than 5,000 ISK, % 2+
- Stolen sth worth more than 5,000 ISK, % 1+
- Stolen sth worth more than 5,000 ISK, % 2+

- 1997: 31.6, 20.7, 5.5, 5.5
- 2006: 22.4, 12.9, 7.0, 3.6
- 2012: 13.5, 7.4, 4.1, 2.1
- 2016: 13.9, 9.5, 4.9, 2.9
Population cohort proportion enrolled into drug use treatment in Iceland over time

Source: SÁÁ Annual Report 2016
IPM Development

• Youth in Iceland 1999 - date

• Youth in Europe, 2006-2016
  

• Planet Youth 2017-date
  
  • [https://planetyouth.org/](https://planetyouth.org/)
What we have learned from the US so far...
Positives

- High level of interests at State, county, and school community levels in multiple areas

- Elected officials, administrative leaders and practitioners commonly the initiating body

- Working relationships concerning the data collection and data processing component usually good, data collection successful with high response rates in several counties

- Quick and efficient report dissemination

- Risk and protective factor variable relationships similar to elsewhere, KEY
Challenges

• Individual programs the normal route, - other ideas met with skepticism
• Organizational collaboration atypical
• Collaboration between researchers-policy makers/admin leaders, and practitioners rare– and a novel idea to many
• Limited primary prevention infrastructure at both local community and county levels – multidisciplinary teams uncommon
• Substance use prevention work commonly grouped into one melting pot, irrespective of primary, secondary or tertiary prevention and/or age groups
• Siloed, and often outcome-specific, funding lines the norm
• Inactive or weak parent organizations at the middle and high school levels
• Problems of outreach and communication, with parents/families and professionals
• Resistance/confusion concerning the ownership of research findings and distribution of reports to relevant agencies and organizations
Formalizing the Process

- Brief historical overview


- Five guiding principles


- 10 steps to implementation
## Paper 1: The 5 Guiding Principles of the Icelandic Prevention Model

<table>
<thead>
<tr>
<th>Guiding Principle 1</th>
<th>Apply a primary prevention approach that is designed to enhance the social environment.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Guiding Principle 2</td>
<td>Emphasize community action and embrace public schools as the natural hub of neighborhood/area efforts to support child and adolescent health, learning, and life success.</td>
</tr>
<tr>
<td>Guiding Principle 3</td>
<td>Engage and empower community members to make practical decisions using local, high-quality, accessible data and diagnostics.</td>
</tr>
<tr>
<td>Guiding Principle 4</td>
<td>Integrate researchers, policy-makers, practitioners, and community members into a unified team dedicated to solving complex, real-world problems.</td>
</tr>
<tr>
<td>Guiding Principle 5</td>
<td>Match the scope of the solution to the scope of the problem, including emphasizing long-term intervention and efforts to marshal adequate community resources.</td>
</tr>
<tr>
<td>Community Capacity Building</td>
<td>Implementation of Core Processes</td>
</tr>
<tr>
<td>-----------------------------</td>
<td>---------------------------------</td>
</tr>
<tr>
<td>Step 1: Local Coalition Identification, Development, and Capacity Building</td>
<td>Key Activities: Identifying or developing a local prevention coalition, including: School superintendents, school principals, school faculty, parents and other caregivers, community professional providers (public health, medical, mental health, recreation, faith community, law enforcement, etc.), elected officials and other community leaders. Developing collective team work &amp; capacity to achieve goals of reduced/eliminated substance use. Identifying existing or new resources to include at least one professional dedicated to support coalition activities.</td>
</tr>
<tr>
<td>Step 2: Local Funding Identification, Development, and Capacity Building</td>
<td>Key Activities: Identify existing and new resources. Reorganize funding to incorporate long-cycle grant funding (5 or more years) and contracting or make permanent structural changes to ensure ongoing funding.</td>
</tr>
<tr>
<td>Step 3: Pre-Data Collection Planning and Community Engagement</td>
<td>Key Activities: Conduct community and school meetings designed to prepare the community for participation. Describe IPM and data collection procedures, especially those protecting students and ensuring meaningful data collection. Answer community questions before each year’s data collection begins.</td>
</tr>
<tr>
<td>Step 4: Data Collection and Processing, Including Data-Driven Diagnostics</td>
<td>Key Activities: Distribute consent forms/introduction letters. Prepare final version of survey. Print surveys (if paper-and-pencil) and/or prepare for online distribution. Collect data from students with data collection being primarily facilitated by an incentivized school leader, faculty, or staff member.</td>
</tr>
<tr>
<td>Step 5: Enhancing Community Participation and Engagement</td>
<td>Key Activities: Advertise community meetings using multiple channels. Extend invitations to all coalition “champions” to community and key stakeholders. Reduce barriers to community participation as needed. For example, providing childcare, transportation assistance, and meals as appropriate.</td>
</tr>
<tr>
<td>Step 6: Dissemination of Findings</td>
<td>Key Activities: Reports prepared. Reports printed and disseminated to all involved using multiple media channels. Reports emphasize user-friendly and jargon free language and easy to interpret charts and graphs. Community presentations advertised and conducted. Community presentations emphasize user-friendly and jargon free language and easy to interpret charts and graphs. Reports and presentations include no identifying information of individuals and are in confidential ownership of the local community in hand.</td>
</tr>
<tr>
<td>Step 7: Community Goal-Setting and Other Organized Responses to the Findings</td>
<td>Key Activities: Local coalitions guide community in goal setting activities. Set 3-4 specific goals related to community relevant risk and protective factors. Plan strategies/actions based on selected goals. Communicate community selected goals and strategies to parents and other caregivers throughout the community using multiple channels of communication.</td>
</tr>
<tr>
<td>Step 8: Policy and Practice Alignment</td>
<td>Key Activities: Identify ways to align local policies and professional practice with goals selected by the community/coalition. Ex. School improvement plans, other community strategic plans. Identify and pursue necessary changes to current policy and professional practice. Communicate community selected goals and strategies to parents and other caregivers throughout the community using multiple channels of communication.</td>
</tr>
<tr>
<td>Step 9: Child and Adolescent Immersion in Primary Prevention</td>
<td>Key Activities: Children and adolescents receiving the “treatment” of time spent in a social environment associated with reduced substance use initiation. Iceland examples</td>
</tr>
<tr>
<td>Step 10: Repeat Steps 1-9 Annually</td>
<td>Key Activities: Evaluate opportunities to improve capacity and communication in Steps 1-3. Repeat Steps 4-9.</td>
</tr>
</tbody>
</table>

Paper 2: Summary of the 10 Core Steps of the Icelandic Prevention Model

| Key Activities: Capacity Building Implementation of Core Processes Repetition |
|---|---|---|
| Step 1: Local Coalition Identification, Development, and Capacity Building | Key Activities: Identifying or developing a local prevention coalition, including: School superintendents, school principals, school faculty, parents and other caregivers, community professional providers (public health, medical, mental health, recreation, faith community, law enforcement, etc.), elected officials and other community leaders. Developing collective team work & capacity to achieve goals of reduced/eliminated substance use. Identifying existing or new resources to include at least one professional dedicated to support coalition activities. | |
| Step 2: Local Funding Identification, Development, and Capacity Building | Key Activities: Identify existing and new resources. Reorganize funding to incorporate long-cycle grant funding (5 or more years) and contracting or make permanent structural changes to ensure ongoing funding. | |
| Step 3: Pre-Data Collection Planning and Community Engagement | Key Activities: Conduct community and school meetings designed to prepare the community for participation. Describe IPM and data collection procedures, especially those protecting students and ensuring meaningful data collection. Answer community questions before each year’s data collection begins. | |
| Step 4: Data Collection and Processing, Including Data-Driven Diagnostics | Key Activities: Distribute consent forms/introduction letters. Prepare final version of survey. Print surveys (if paper-and-pencil) and/or prepare for online distribution. Collect data from students with data collection being primarily facilitated by an incentivized school leader, faculty, or staff member. | |
| Step 5: Enhancing Community Participation and Engagement | Key Activities: Advertise community meetings using multiple channels. Extend invitations to all coalition “champions” to community and key stakeholders. Reduce barriers to community participation as needed. For example, providing childcare, transportation assistance, and meals as appropriate. | |
| Step 6: Dissemination of Findings | Key Activities: Reports prepared. Reports printed and disseminated to all involved using multiple media channels. Reports emphasize user-friendly and jargon free language and easy to interpret charts and graphs. Community presentations advertised and conducted. Community presentations emphasize user-friendly and jargon free language and easy to interpret charts and graphs. Reports and presentations include no identifying information of individuals and are in confidential ownership of the local community in hand. | |
| Step 7: Community Goal-Setting and Other Organized Responses to the Findings | Key Activities: Local coalitions guide community in goal setting activities. Set 3-4 specific goals related to community relevant risk and protective factors. Plan strategies/actions based on selected goals. Communicate community selected goals and strategies to parents and other caregivers throughout the community using multiple channels of communication. | |
| Step 8: Policy and Practice Alignment | Key Activities: Identify ways to align local policies and professional practice with goals selected by the community/coalition. Ex. School improvement plans, other community strategic plans. Identify and pursue necessary changes to current policy and professional practice. Communicate community selected goals and strategies to parents and other caregivers throughout the community using multiple channels of communication. | |
| Step 9: Child and Adolescent Immersion in Primary Prevention | Key Activities: Children and adolescents receiving the “treatment” of time spent in a social environment associated with reduced substance use initiation. Iceland examples | |
| Step 10: Repeat Steps 1-9 Annually | Key Activities: Evaluate opportunities to improve capacity and communication in Steps 1-3. Repeat Steps 4-9. | |
Thank you

Alaska Public Health Summit
January, 2020

Questions and concerns:
alkristjansson@hsc.wvu.edu