The Icelandic Model

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The Icelandic Model

Alcohol

Cigarette

Marijuana

Sigfúsdóttir ID.

Evidence based primary prevention: The Icelandic Model
No conflict of interest
Marijuana:
Today a different drug!

• 7 X more potent.
• 1 in 6 become addicts.
• Not medicinal
‘Big Tobacco’ Advertising in the 50’s
Marijuana: Risk perception vs. Consumption

Estudio SENDA 2016
Alcohol & Drugs: Hurt Children!

Children’s Brain is more vulnerable:

• Neuron pruning
• Axons not covered by myelin

Volkow, 2014, N Eng. J. Medicine
NEURO - SPECT

NEURO - SPECT CON

Courtesy of Dr. Dohr
Marijuana: Hurts children's health

Regular use:
- Learning disabilities
- Lowers school performance
- Increases dropout rate


Consistent use:
- Lowers IQ 8 points
- Irreversible if started under age 18

Meier MH et al., *Proc Natl Acad Sci USA* 2012; 109(40): E2657-E2564.
Marijuana: Drives them mad...

- Increases risk of psychosis, schizophrenia and other mental illnesses.

- Lowers achievements.

- Chronic bronchitis.
Marijuana: Legalization Increases consumption

- Promedio EUA: 7.1%, 7.4%, 8.0%
- Colorado: 10.4%, 12.7%, 14.9%
- Washington: 10.2%, 12.3%, 12.8%

Legend:
- 2011-2012
- 2012-2013
- 2013-2014
Models of Prevention
From Concept to Public Policy

How the Model Works

Dr. Michael Mann, Ph.D.
Icelandic Model Assumption 1:

Adolescent substance use is not randomly distributed throughout the population...

Adolescent behavior a reflection of their social environment.
Sample profile – social risks

• **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
Viewpoint 1. **Individual responsibility:**
the causes of substance use

“Causes” of substance use

Common explanations:
Lack of purpose, boredom, depressed affect, low school engagement, poor choices
Viewpoint 2: Community responsibility. 
the “causes of the causes“ of substance use

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
Icelandic Model Assumption 2:

Individual behavior change is notoriously difficult to accomplish
Icelandic Model Assumption 3:

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

aka. The scope of the solution must match the scope of the problem.
Icelandic Model: Ecological domains of intervention focus

- Family
- Peer group
- School
- Leisure time

Individuals

Local school community
Municipal
National
Overview: Core Steps

1. Community Capacity Building
2. Data Collection, Diagnostics, and Dissemination
3. Structured Community Response
4. Repetition
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
Parents and children spend more time together

Rates of students in 9th and 10th grade who spend time (often/almost always) with their parents during weekdays
Rates of students in 9th and 10th grade that participate in sports with a team or club four times per week or more often

Increased participation in organized sports

0 5 10 15 20 25 30 35 40 45 50
%
Rates of students in 9th and 10th grade who have been outside after 10 pm, 3 times+ in the past week
Iceland: Positive development over 20 years (10\textsuperscript{th} grade students)
Models of Prevention
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The Chilean Story
Why Iceland?

- Children’s biology is the same
- Other nordic countries do worse
- Other small islands do worse
- It focuses on the here and now
- Custom made suit
- Only evidence based method that works
Heavy episodic drinking in the last 30 days*

- Denmark: 56%
- Iceland: 28%
- Finland: 23%
- Sweden: 22%
- Norway: 19%
- United Kingdom: 8%

*ESPAD 2015
Substance Use Amongst European Youth

(ESPAD, 2015)
SEMINARIO 2017
Support from the president
Scientific societies participate on signing with municipalities for pilot study last year
Municipalities Pilot 2018:
- Colina
- Las Condes
- Lo Barnechea
- Melipilla
- Peñalolén
- Renca

Chilean Model of Prevention
- Questionnaire
- 300 variables
- 10th Grade
- 8,422 youth
- 112 schools
17 % Drunk last month

Percent

Current drunkenness - Yes

Chile 2018
24% Bored with school
Consumption is higher if parents don’t know where youth is on the evening

<table>
<thead>
<tr>
<th>Substance</th>
<th>Percent</th>
<th>Smoking</th>
<th>Et-OH</th>
<th>Marijuana</th>
</tr>
</thead>
<tbody>
<tr>
<td>Daily smoking</td>
<td>7.1</td>
<td>22.7</td>
<td>15.8</td>
<td>26.5</td>
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<tr>
<td>Current drunkenness</td>
<td>32.7</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Substance use: Ever Cannabis</td>
<td>56.3</td>
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</tr>
</tbody>
</table>

Chile 2018
More consumption if out after midnight

Cross-tabulations

Percent

- Cigarro
  - Daily smoking: 5.4%
  - Current drinker: 13.3%
- Et-OH
  - Current drinker: 29.2%
- Marijuana
  - Substance use: 24.2%
  - Ever Cannabis: 36.6%

Chile 2018
Conclusions:

Chilean adolescents appear to be commonly bored and poorly supervised. Together with a high degree of societal acceptance of adolescent alcohol use, high rates of other substance use thrives
Prime Minister commits to expanding prevention model to all of Chile. Calls for continued work with scientific societies.
Thanks for your interest in working to have children free from alcohol & drugs