Prevention Is Possible: A Brief History of the Origin and Dissemination of the Icelandic Prevention Model

Inga Dora Sigfusdottir, PhD[1,2]
Humberto E. Soriano, MD[3]
Michael J. Mann, PhD[4]
Alfgeir L. Kristjansson, PhD[1,5]

In two decades, the Icelandic prevention model (IPM) has been employed to dramatically reduce rates of adolescent substance use in Iceland. Briefly, the IPM is a multisectoral, community-based, collaborative system where researchers, policy makers, administrative leaders, and practitioners join forces to reduce the odds of adolescent substance use over time. Comparatively, Iceland now ranks among the lowest in adolescent substance use in all of Europe. Since 2005, the IPM has garnered considerable international attention, and several countries or municipalities within them have adapted, or are presently adapting, the model to their needs. In this commentary, we first briefly review the history and formation of the IPM in Iceland from a school-based survey to a fully integrated prevention system. In the second part, we present a short overview of the national consensus building and institutional collaboration that led to the implementation of the model in Chile in Latin America, as a demonstrative example. In this volume of Health Promotion Practice*, we also present a series of two practice-based articles that introduce the IPM. The first article, titled "Development and Guiding Principles of the Icelandic Model for Preventing Adolescent Substance Use," introduces the theoretical origins of the model, five guiding principles, and evidence of effectiveness to date. In the second article, titled "Implementing the Icelandic Model for Preventing Adolescent Substance Use," we outline 10 practice-based steps to guide model implementation in other countries. Both articles are available via open access, and both are also available online in Spanish.*

Keywords: *child/adolescent health; community intervention; environmental and systems change*

Prevention is possible. Over the past 20 years, the Icelandic prevention model (IPM) has been employed to dramatically reduce substance use among adolescents in Iceland. Previously published articles have presented evidence supporting the effectiveness of the model (Kristjansson et al., 2016; Kristjansson, James, Allegrante, Sigfusdottir, & Helgason, 2010). Although a lot has been written about IPM outcomes, less has been written about how to implement the IPM and its pathway from a sociological idea to a national intervention fully integrated into the fabric of Icelandic life. In the next two articles, a description of the theoretical background, guiding principles, and core processes of the IPM will be presented in detail. However, this commentary will provide insights related to how the large-scale implementation of the IPM became possible, in both Iceland and abroad.

[1]*Reykjavik University, Reykjavik, Iceland*
[2]*Columbia University, New York, NY, USA*
[3]*P. Universidad Católica, Santiago, Chile*
[4]*Boise State University, Boise, ID, USA*
[5]*West Virginia University, Morgantown, WV, USA*

Authors' Note: *Address correspondence to Alfgeir L. Kristjansson, Department of Social and Behavioral Sciences, School of Public Health, West Virginia University, Morgantown, WV 26505, USA; e-mail: alkristjansson@hsc.wvu.edu.*

Health Promotion Practice
January 2020 Vol. 21, No. (1) 58–61
DOI: 10.1177/1524839919886314
Article reuse guidelines: sagepub.com/journals-permissions

THE ORIGINS OF THE IPM

The origins of the IPM can be traced back to the late 1980s when Reykjavik's City Sports and Recreational Council hired external researchers to assess adolescent risk behaviors. Although these studies were not meant to lead to a national prevention program, collaborations between local governmental officials and external researchers led to effective policy and practice built on data-driven decision making and sound evidence. Over time, these collaborations grew to transcend typical partnerships between individuals or organizations and grew into institution-level partnerships with the power to transform social systems and community outcomes. This focus on strengthening institutions, collaboration across them, and systems change would grow into foundational aspects of the IPM.

The first nationwide Youth in Iceland study was conducted in 1992 by the Institute of Educational Research (IER) and included students in Grades 8 to 10. Dr. Thorolfur Thorlindsson, Professor of Sociology, led the study and other study personnel were faculty or his students at the University of Iceland. The IPM's roots in sociology were important for two reasons. First, the theoretical pillars of the study were based in classical theories of adolescent deviance that come from sociology and criminology (Durkheim, 1951/1897; Hirchi, 1969; Merton, 1938). Collectively those theories assume that the roots of risk behaviors originate in the environment rather than in individual differences. Second, sociological studies tend to be population focused rather than individual focused—generating an emphasis on population-level, cross-sectional data collection and assessment of environmental change—rather than longitudinal studies tracking changes in individual behavior among smaller samples over time.

In the mid- to late 1990s, IER representatives began disseminating school-specific and community-specific reports describing local adolescents' social environments, while making comparisons to other deidentified schools and communities throughout Iceland. These reports were developed with the intention of maximizing local buy-in and deepening community commitment to prevention. Enhancing the practical utility of the data was an explicit goal and influenced choices related to data collection, analysis, and presentation of findings to the community. As a result, the IER team developed an approach that focused on ensuring high local response rates (80% or better for each participating school) and culminated in plain-language reports that favored using easy-to-interpret frequency tables, cross-tabulations, line graphs, and bar charts over complex statistical techniques and dense technical jargon. All reports were delivered within 2 to 3 months of data collection. As intended, this approach drastically improved the real-time, practical utility of the data, while increasing stakeholder confidence in the data and commitment to action based on clear indicators.

In 1998, the role of the IER was changed with a governmental act and its youth research component defunded. Subsequently, the Icelandic Center for Social Research and Analysis (ICSRA) was founded to continue the research work initiated by IER. Two historical events fueled the relevance and expansion of ICSRA's work. First, the Icelandic media published several stories about high rates of youth drunkenness and favorable alcohol norms among youth and adults in the country. Second, the pan-European comparative European School Survey Project on Alcohol and Other Drugs studies revealed in 1995 and 1999 that Icelandic youth were smoking tobacco, consuming alcohol, and using cannabis substances at higher rates than most other European youth (Hibell et al., 2000). These findings and the media attention that followed led to the establishment of the Drug-Free Iceland 2002 Initiative (Palsdottir, 2003), a nationwide project designed to battle substance use among youth. This initiative prioritized improving access to scientifically sound data about youth, enlisting networks of parents and other stakeholders to change drug and alcohol use norms, and motivating adolescents to engage in prosocial activities supervised by responsible adults.

For the next 6 to 8 years, ICSRA focused largely on formalizing and systematizing the work initiated by the IER and Drug-Free Iceland. Additionally, ICSRA worked to secure funding and ensure their long-term financial solvency in a manner that supported proper implementation of the IPM. Their solution was to create 5-year cooperative agreements between ICSRA and the local communities that were the primary users of the data, rather than rely on short-term grant funding from more unstable sources. This funding model—based on a commitment to matching and resourcing the solution to the actual scope of the problem—represented another critical step in the development of the IPM.

By 2005, it had become known internationally that Iceland was doing something different to prevent adolescent substance use. Rates of substance use by youth in Iceland were declining, and more so than elsewhere, even when compared to neighboring Nordic countries. The president of Iceland, Mr. Olafur Ragnar Grimsson, became a strong international advocate for the IPM and presented this work through various international channels over the next several years.

During this time, the Youth in Europe (YIE) project was founded via collaborations between ICSRA, city councilors,

and other officials within the City of Reykjavik, and the European Cities Against Drugs organization, a pan-European network of cities and towns aiming to battle drug use throughout Europe. YIE aimed to translate and disseminate the IPM and to reduce adolescent substance use in European towns and cities outside of Iceland. From 2006 to 2016, five waves of survey data collection were conducted by the YIE project in 35 towns and cities in 23 countries with the total number of student surveys administered exceeding 120,000.

In 2017, a news story about the IPM appeared in several international news outlets such as the *Independent, Huffington Post*, and *Mozaic Science* (https://www.independent.co.uk/life-style/health-and-families/iceland-knows-how-to-stop-teen-substance-abuse-but-the-rest-of-the-world-isn-t-listening-a7526316.html). Shortly thereafter, the BBC produced a short film about the IPM. These events led to a large influx of requests to ICSRA about the IPM. Those requests, coupled with 10 years of ICSRA leadership in the YIE project, led to collaborations with countries outside of Europe and the birth of Planet Youth, the global platform for the implementation of the IPM (https://planetyouth.org/).

CHILE: AN EXAMPLE OF DISSEMINATING THE IPM FROM NATION TO NATION

Chile underwent faster economic growth and development than other Latin American countries during the 1980s, 1990s, and early 2000s. Over that period, increasing affluence was coupled with longer working hours and an increasingly laissez-faire approach to parenting that included heavily relying on technology as a parental substitute. These factors appear to have contributed to children and adolescents spending less time with their families and decreased levels of parental supervision. Research has generally revealed that rapid societal change is likely to reduce social integration and contribute to a higher likelihood of delinquent behavior and substance use. Disturbingly, these changes in Chile also occurred during a time when alcohol and cannabis producers were advertising in ways intended to lower the perception of risks related to alcohol and cannabis use and promote increased consumption. Over a generation, these social conditions emerged and converged in a manner that seem to have made Chilean children more vulnerable to substance use and more at risk of addiction. These changes culminated in a steep and progressive climb in rates of consumption of alcohol and drugs among Chilean youth, until Chilean youth were consuming alcohol and drugs at a higher rate than adolescents in all other Latin American countries.

Two key institutional groups appear to have become aware of the IPM independently of each other at approximately the same time. In late 2016, the Chilean Minister of Health learned about the IPM and shared this model with the director of Chile's national drug commission. Separately, key medical societies became interested in the IPM in January 2017, especially the Prevention Medical Association (PMA), which included members from the Chilean Society of Pediatrics, the Society of Pediatric Neurology and Psychiatry, and the Society of Neurology, Psychiatry, and Neurosurgery. In the PMA, there was much discussion about whether or not the IPM would be culturally relevant in Chile. However, after considering the successful cultural adaptations made by professionals using the IPM in Tarragona, Spain as part of YIE and the fact that Iceland was out-performing other culturally similar Nordic countries, a collection of key stakeholders decided to provide grassroots leadership and support for adopting the IPM in Chile.

The Chilean Society of Pediatrics invited the leadership of ICSRA to a large seminar in Chile to present the IPM and lay the foundation for a pilot project. This seminar took place in August 2017 and was sponsored by the PMA and its three founding medical societies. Attendees included 1,100 stakeholders from all levels of Chilean society, which included the highest level of national government ministers, local officials, university researchers, community youth practitioners, school principals/teachers, law enforcement, health services personnel, and other interested citizens. Together, they learned about the Icelandic experience and the IPM from the president of Iceland and the two ICSRA directors. This seminar coincided with an election year, and candidates from all parties were encouraged to attend and express their support for prevention and this type of approach. The meeting was professionally organized and marketed by a communications company and social media experts, with media representation being included throughout the event. At the time, the event generated 44 articles in print publications, 5 television segments, 9 radio interviews, 18 online publications, and a wide range of social media activity.

Soon after this meeting, a group formed by the University of Chile, the former director of Chile's national drug commission, and a team from the PMA secured funding from majors for a pilot project that would include six Chilean communities. The pilot project was led by Clinica Psiquiátrica of the Universidad de Chile, with technical assistance from Chilean medical societies and ICSRA. Because the goal was to create a policy for the whole public instead of a policy rooted in partisanship, the pilot communities were selected to reflect all of Chilean society and constituents from the

widest possible range of political affiliations. This decision allowed Chileans representing all walks of life and political affiliations to have an opportunity to support the IPM. And they did.

In 2018, the pilot project provided enough preliminary data and community backing to garner presidential support for the widespread adoption of the IPM in Chile. Over the next year, delegations from Iceland visited Chile, and likewise, delegations from Chile visited Iceland. These visits included representatives of ICSRA, representatives of the Chilean health ministry and the ministry of the interior, the president of the Chilean society of pediatrics, local community members, and many others. Working together, these key stakeholders developed a collaborative plan that has increased the implementation of the IPM to 52 Chilean communities representing approximately 53% of the population, including plans to expand nationwide. That work is currently underway.

CONCLUSIONS

Although it may not always seem likely, prevention is possible. Communities can be empowered. Families, practitioners, researchers, and policy makers can work together to advance children's health and well-being. Public policy can be crafted that demands the use of comprehensive, scientifically sound prevention models that produce results. Institutions can become more proactive, collaborative, and stronger at all levels. Societies can transform their collective expectations, match the scope of their solutions to the scope of their problems, and create demonstrably safer and healthier environments for children to grow up in. Prevention is possible, but the pathways to the adoption of a prevention orientation and integration of prevention models into daily practice can be long and demanding. However, Iceland's success at reducing adolescent substance use suggests that learning to navigate these pathways can be worth it, while the work in Chile suggests that the capacity to create these pathways is not unique to Iceland.

ORCID iDs

Michael J. Mann https://orcid.org/0000-0002-3421-4184
Alfgeir L. Kristjansson https://orcid.org/0000-0001-8136-9210

REFERENCES

Durkheim, E. (1951). *Suicide: A study in sociology*. New York, NY: Free Press. (Original work published 1897)

Hibell, B., Andersson, B., Ahlström, S., Balakireva, O., Bjarnason, T., Kokkevi, A., & Morgan, M. (2000). *The 1999 ESPAD report*. Retrieved from http://www.espad.org/sites/espad.org/files/The_1999_ESPAD_report.pdf

Hirchi, T. (1969). *Causes of delinquency*. Los Angeles: University of California Press.

Kristjansson, A. L., James, J. E., Allegrante, J. P., Sigfusdottir, I. D., & Helgason, A. R. (2010). Adolescent substance use, parental monitoring, and leisure-time activities: 12-year outcomes of primary prevention in Iceland. *Preventive Medicine*, *51*, 168-171. doi:10.1016/j.ypmed.2010.05.001

Kristjansson, A. L., Sigfusdottir, I. D., Thorlindsson, T., Mann, M. J., Sigfusson, J., & Allegrante, J. P. (2016). Population trends in smoking, alcohol use and primary prevention variables among adolescents in Iceland, 1997-2014. *Addiction*, *111*, 645-652. doi:10.1111/add.13248

Merton, R. (1938). Social structure and anomie. *American Sociological Review*, *3*, 672-682.

Palsdottir, D. (2003). *Drug-free Iceland 2002: Final report*. Reykjavik, Iceland: City of Reykjavik.