

Substance use prevention through school and community-based health promotion: a transdisciplinary approach from Iceland

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Abstract: During the last decade, Iceland has made impressive progress in reducing adolescent substance use. By engaging schools, youth organizations, and other community stakeholders concerned with youth development, Iceland has developed local partnerships that have worked assiduously to reduce risk factors and strengthen school and community-level protective factors for adolescent substance use that peaked in 1998. The nationwide implementation of this transdisciplinary approach to health promotion has led to a 60% decline in both experimentation and use of alcohol, tobacco and cannabis. This article describes the key components of the Icelandic approach to school and community-based health promotion. The potential for adapting elements of this approach to advance school-based healthcare policy and practice to prevent substance use and other health-compromising behaviors in other countries is discussed. (*Global Health Promotion*, 2011; 18(3): 23–26)

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The prevalence of adolescent substance use increased in European countries during the 1990s (1,2). In Iceland, from 1992 to 1998, the proportion of 10th graders who smoked cigarettes on a daily basis increased from 15% to 23% and those who had used cannabis (marijuana) rose from 7% to 17% (2,3). Since then, Iceland has seen a steady decline in adolescent substance use (4). In this article, we describe the effort that Iceland has pursued in successfully reducing adolescent substance use through the development of partnerships that have carried out multi-level community actions.

Core elements of the approach

The core elements of our approach include: (i) use of a theory-based, multi-level community-wide

intervention; (ii) application of empirical evidence drawn from systematic social research as a foundation on which to inform policy and guide local-level practice; and (iii) collaboration between social scientists, policy makers and key community stakeholders, including parents, public health practitioners and those in the community youth organizations and schools, to deliver intervention activities at the local level.

A theory-based approach

Several key theories from social science (5–7) dealing with the importance of social integration, social control and social support provide the theoretical foundation on which Iceland's adolescent substance use prevention policy and practice have

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been based. Iceland's approach is also consistent with systems-based public health (8).

Use of empirical evidence

Understanding the major peer and social influences in the lives of adolescents is essential to strengthening those protective factors and decreasing those risk factors that become the priority for primary prevention. To monitor trends in adolescent substance use and generate the necessary empirical evidence about the potentially modifiable community protective and individual risk factors, we have conducted annual cross-sectional surveys in all secondary schools. Our surveys provide data-based observations not only about trends in substance use, but also about the role and influence of mediating personal and social-level factors (such as the family, organized youth work and school) that multi-level intervention is designed to address.

Our annual surveys, for example, have shown that substance use can be predicted by examining use in different age cohorts of adolescents (see Figure 1). Hence, a cohort that reports above-average use of any substance by the age of 13 maintains its high use through to the next two years and continues to heavily use substances at the age of 15 (9). However,

a cohort of 13-year-olds that measures lower in substance use continues to engage in relatively low use through the next two years. Thus, we identify at-risk adolescents early in their formative school years in order to intervene at the developmentally critical stage before any signs of experimentation are evident.

In our research, affiliations with peer group, parents and other family members, as well as the kinds of recreational opportunities available to young people, are the strongest predictors of substance use (3,10,11). Our data show that having friends that smoke, drink alcohol and use cannabis increases the likelihood that adolescents will adopt such behaviors in the absence of parental and broader socially normative controls (3,12). In contrast, very few adolescents who report having nearly no friends who use such substances have tried drugs themselves. These findings are consistent with research that has been conducted in other countries (13,14).

Our studies have also revealed that participation in supervised youth work and sports confers some protection against adolescent substance use (3,11,12,15,16). Supervised youth work is of special importance because it provides adolescents with an opportunity to participate in activities that enable them to develop self-esteem, valuable skills and life goals. Moreover, supervised youth work provides

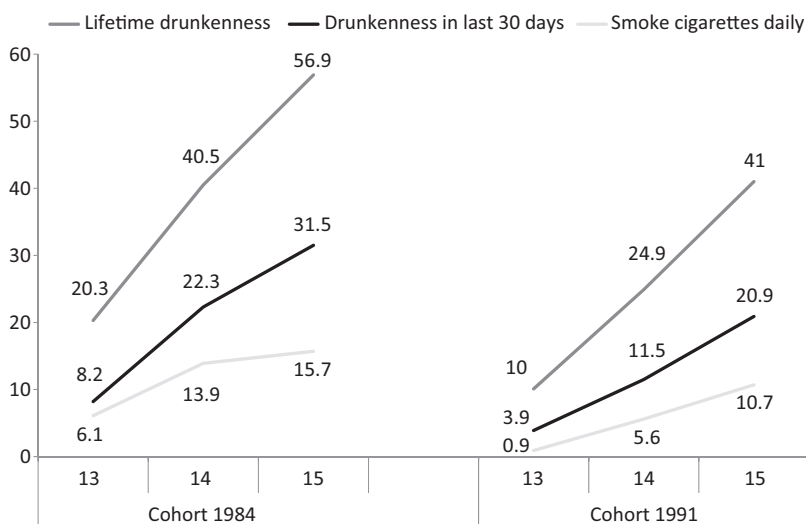


Figure 1. Trends in prevalence rates of substance use for two birth cohorts in Iceland seven years apart. *Youth in Iceland* surveys.

opportunities through which adolescents can be reached, influenced and supported by the larger community (17). This occurs in Iceland by participating in mentorship programs, volunteering in the community, or forming special informal relationships with an adult other than a supervising parental figure, such as a teacher or a sports coach (18).

Parental support, responsible supervision and monitoring, and the amount of time spent with children are key social assets that decrease the likelihood of substance use among adolescents in Iceland (3,11,12,15). Parental support and monitoring not only directly decrease the likelihood of substance use but also affect the choices of friends that young people make. Thus, adolescents who perceive that their parents provide substantial support are less likely to associate with friends who use drugs, and those who acquire friends who use drugs are less likely to start using drugs themselves (19,20). In addition to control and support, the more time adolescents spend with their parents and family outside school, the less likely they are to use drugs (3,11).

In schools where parents know the friends of their adolescent children by name and develop and maintain relationships with the parents of their children's friends — a social-capital indicator known as 'intergenerational closure' (7) — all students benefit from such parent-to-parent communication (12). Strengthening the ties between parents and youth in the local community thus constitutes an important deterrent to substance use. To the extent that it is through schools that parents are most likely to meet, interact and exercise both direct and indirect control over their children, the school is an important mediating structure in building community social capital and enhancing the ties and friendship of peers, the parents of the peers, and peers and their friends' parents (6,12,20).

The results have been used to inform the development of an effective substance use prevention approach, the key components of which include:

- communicating to parents the importance of emotional support, reasonable monitoring, and increasing the time they spend with their adolescent children;
- encouraging youth to participate in organized recreational and extracurricular activities and sports and to increase opportunities for such participation; and

- working with local schools in order to strengthen the supportive network between schools, parents and other relevant agencies in the community to support substance use prevention efforts.

Collaboration between key community stakeholders

The third element of the approach is making substance use prevention part of a broader community health promotion effort (20). This has been achieved by convincing multidisciplinary researchers, policy makers and grassroots practitioners who have interest in youth development to work together to identify the potentially modifiable risk and protective factors on which to intervene and the practical and sustainable ways in which to do so. This dialogue between researchers, policy makers and practitioners is of central importance to the success of the prevention approach. Thus, although we carry out our studies within a local school setting, the intervention focuses on engaging people across many other community spheres, including the adolescent peer group, the family, and those who organize youth activities, in addition to the local schools.

Although most schools in Iceland do not offer a formal curriculum in health or the health and social consequences of substance use, they now play a role of key importance in adolescent substance use prevention. Not only do schools constitute an important community setting through which annual population data are collected about youth behavior that allow us to make continuous improvements in meeting adolescent needs, they also constitute the principal setting where parents, teachers and those who work in after-school programs and sports clubs can be brought together for discussion of how our annual survey findings can be used at the local level to formulate the necessary community-wide actions to prevent substance use. The importance of collaboration between and among key stakeholders is encouraged at these meetings and they serve to strengthen the density of social ties that we believe is of paramount importance to adolescent well-being in the community (12). These actions include:

- local-level school meetings and poster campaigns that have communicated to parents the importance of spending time together with their

children, that all adolescents should be home by 10 pm in the evenings, and that unsupervised adolescent gatherings (e.g. parties) should be discouraged;

- neighborhood-level 'parental walks', in which groups of parents patrol their neighborhoods during weekend nights to unobtrusively monitor the behavior of youth as well as creating bonds and collaborations between parents in each neighborhood; and
- a funded municipal program in the city of Reykjavik that provides adolescents with pre-paid membership cards that allow them to participate in adult-supervised youth work and sports activities.

Conclusion

We believe that the decline in adolescent substance use in Iceland is due to the decade-long partnership between researchers, public health policy makers and practitioners that has sought to reduce substance use by reducing known risk factors and strengthening a broad range of community-level protective factors. By focusing on peer influence, parental supervision and monitoring, and alternative youth activities in the community, primary prevention efforts that are organized around the kind of multi-level health promotion that Iceland is pursuing is likely to be more successful than single-focus efforts. Moreover, our transdisciplinary approach is based on social science theory that links community-level mobilization to individual behavior, coupled with an institutionalized capacity for collecting population-based data that have yielded a rich, dynamic and nuanced picture of the potentially modifiable risk and protective factors at the individual, family, community and societal levels. The evidence that our approach works, and is continuing to work, is promising.

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