Álfgeir Logi Kristjánsson

Professor at West Virginia University

PLANET Youth®

Icelandic Prevention Model

Overview of Methodology

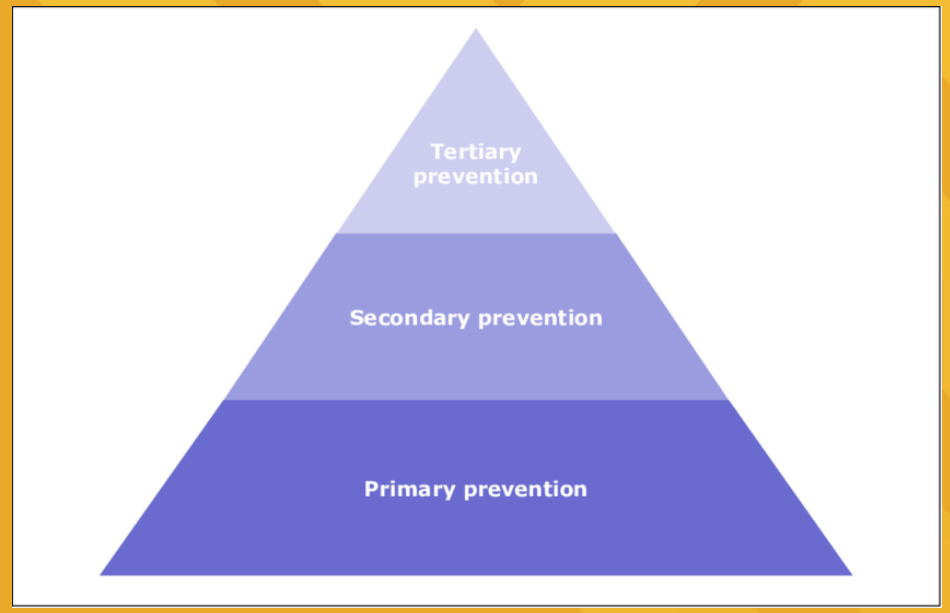
Alfgeir L. Kristjansson*, PhD, MSc*

Professor of Public Health

PI and Co-Director, WV Prevention Research Center

West Virginia University, School of Public Health

Prevention pyramid



- Primary prevention: Before problems
- Secondary prevention: After problems begin
- Tertiary prevention: When problems have become severe


Community Conditions
UPSTREAM
Community Impact
Individual Social Needs
MIDSTREAM
Individual Impact
Clinical Care
DOWNSTREAM

+90%

Why primary prevention?

1. Population focus
2. Early initiation most likely to escalate into serious problems
3. Family and community breakdown prevented
4. School drop-out rates lowered
5. Teen pregnancy rates lowered
6. Expensive health care cost prevented
7. High return on investment ($1>4 – $1>18)

Effective primary prevention strategies

Would generate a population decline in substance abuse initiation for 1.5 million youth that would be delayed for 2 years on average and safe up to $18 for every $1 spent

https://www.samhsa.gov/sites/default/files/cost-benefits-prevention.pdf

Central question for primary prevention:
How does youth substance use begin?

Three potential scenarios for substance use initiation:

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 an unconscious decision in the context of peers and social circumstances that favor drug use – most likely

But….

What are the dominant forms of primary substance use prevention?

- *To address early substance use onset as a conscious and isolated individual decision*

- *Typically, through instructional and short-term programs*

But.., children and youth..

- Have different families and social background
- Live in different communities
- Go to different schools

In sum. The problem is…

Our systems prioritize tertiary prevention

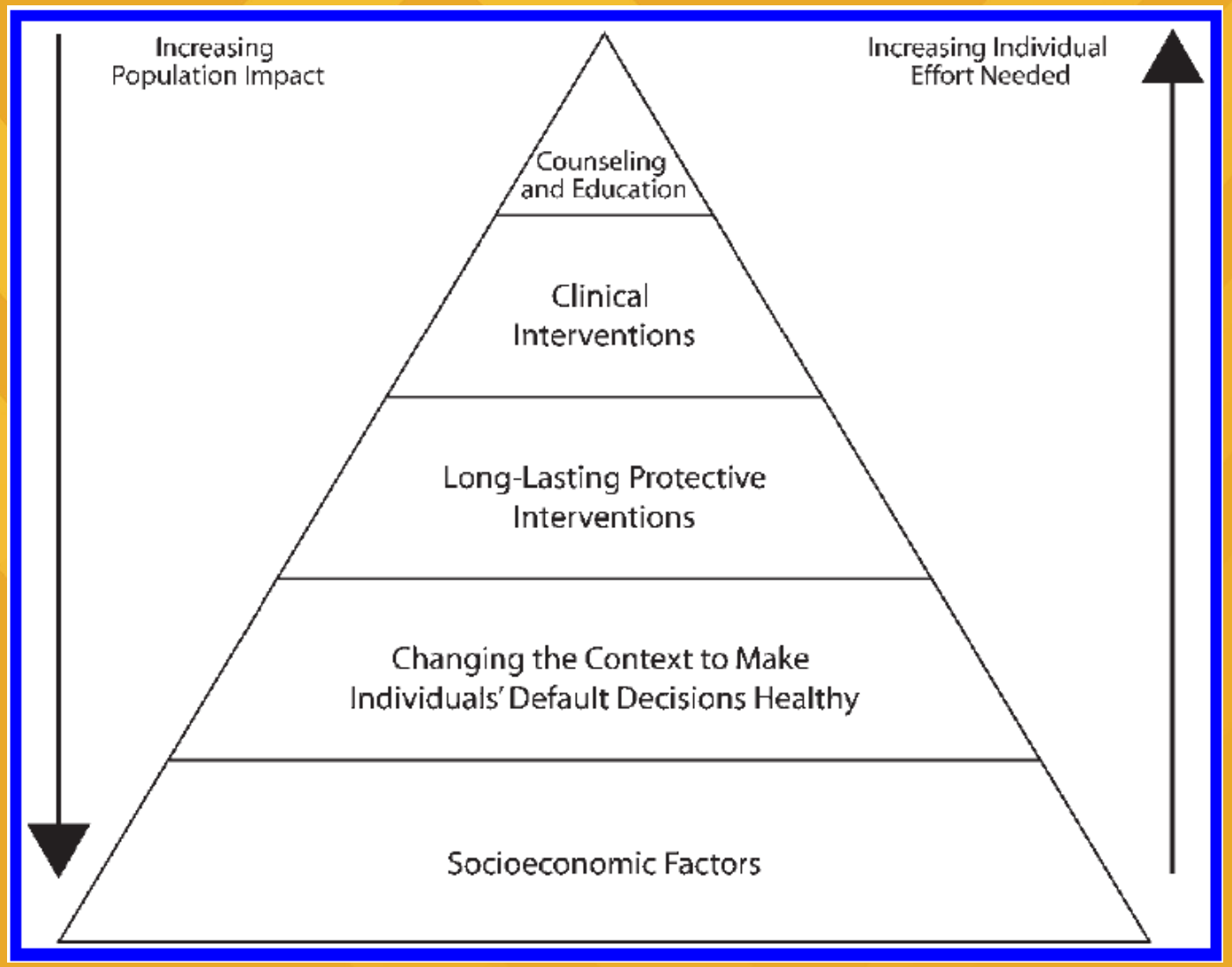
We use ineffective methods to prevent or delay substance use onset

We assume that individual decisions are made in isolation from their social influences

Why community-based primary prevention?

The health impact pyramid

Frieden (2010).
Am J Public Health



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PREVENTING CHRONIC DISEASE
PUBLIC HEALTH RESEARCH, PRACTICE, AND POLICY

ESSAY

Volume 10 — February 14, 2013

An Integrated Framework for Assessing the Value of Community-Based Prevention: A Report of the Institute of Medicine

Nicolaas P. Pronk, PhD; Lyla M. Hernandez, MPH; Robert S. Lawrence, MD

Suggested citation for this article: Pronk NP, Hernandez LM, Lawrence RS. An Integrated Framework for Assessing the Value of Community-Based Prevention: A Report of the Institute of Medicine. Prev Chronic Dis 2013;10:120323. DOI: http://dx.doi.org/10.5888/pcd10.120323 .

“Community-based, nonclinical prevention strategies and wellness policies account for as much as 80% of the overall health of a population”

Pronk et al., 2013. *Preventing Chronic Disease*

Tinner *et al. Systematic Reviews* (2024) 13:75
https://doi.org/10.1186/s13643-024-02450-2

Systematic Reviews

RESEARCH Open Access

Community mobilisation approaches to preventing adolescent multiple risk behaviour: a realist review

Laura Tinner[1*], Claire Kelly[1], Deborah Caldwell[1] and Rona Campbell[1]

"There is increasing recognition that community mobilization approaches could be beneficial for adolescent health. …
For community mobilization interventions to reduce adolescent multiple risk behaviors, the ***coalitions*** within them must seek to alter the social environment in which these behaviors occur"

Current implementation methods and future directions in community-based prevention

Current Primary Prevention Paradigm

- Cycle of short-term intervention strategies
- Abundance of temporary resources provided during test period
- Comparative measurement before and after intervention period
- Short-term impact => cyclical execution of grants and programs

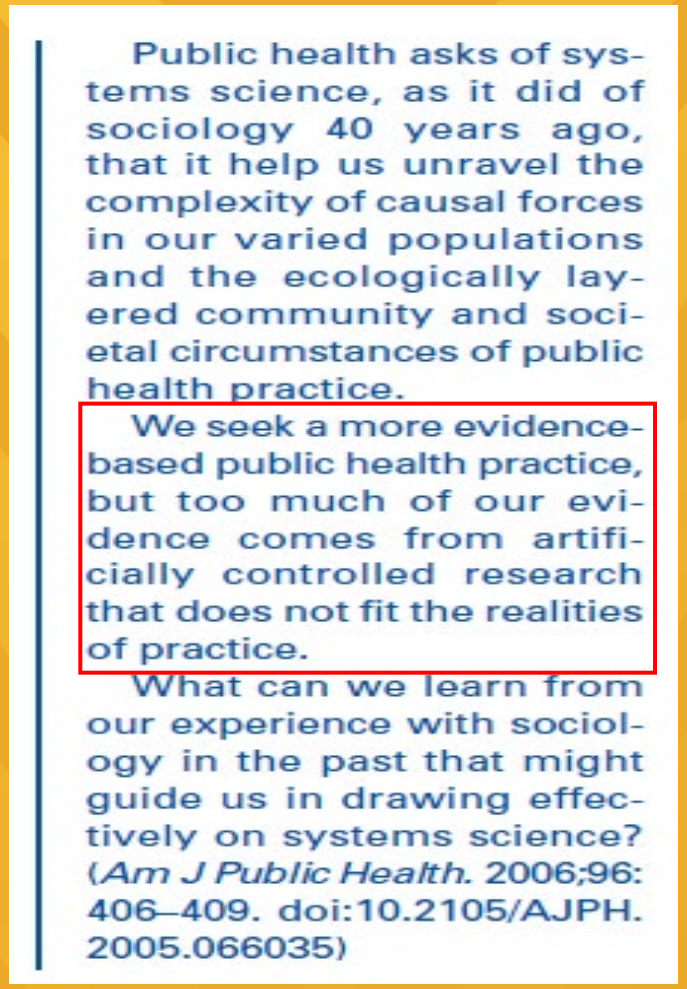
Current Primary Prevention Paradigm

- Replication challenges due to artificial original circumstances and high cost
- Sustainability and/or long-term impact questionable and usually not evaluated
- Infrastructure and capacity building typically not part of the equation

<u>=> Does not fit the realities and needs of most communities</u>

Public Health Asks of Systems Science: To Advance Our Evidence-Based Practice, Can You Help Us Get More Practice-Based Evidence?

Green, 2006. *Am J Public Health*



Public health asks of systems science, as it did of sociology 40 years ago, that it help us unravel the complexity of causal forces in our varied populations and the ecologically layered community and societal circumstances of public health practice.

We seek a more evidence-based public health practice, but too much of our evidence comes from artificially controlled research that does not fit the realities of practice.

What can we learn from our experience with sociology in the past that might guide us in drawing effectively on systems science?

(*Am J Public Health.* 2006;96: 406–409. doi:10.2105/AJPH.2005.066035)

Practice-Based Evidence and the Need for More Diverse Methods and Sources in Epidemiology, Public Health and Health Promotion

Lawrence W. Green, DrPH, ScD(Hon)[1] and John P. Allegrante, PhD[2]

2020. *Am J Health Promotion*

Applied Social and Behavioral Science to Address Complex Health Problems

William C. Livingood, PhD, John P. Allegrante, PhD, Collins O. Airhihenbuwa, PhD, MPH,
Noreen M. Clark, PhD, Richard C. Windsor, PhD, MPH,
Marc A. Zimmerman, PhD, Lawrence W. Green, DrPH

"This paper proposes a fundamental shift from a research approach that presumes to identify (from highly controlled trials) universally applicable interventions expected to be implemented "with fidelity" by practitioners, to an applied social and behavioral science approach similar to that of engineering… [ALK: toolkit approach] It would… require disciplines now engaged in preventive medicine and public health practice to develop a better understanding of systems thinking and the science of application that is sensitive to the complexity, interactivity, and unique elements of community"

Am J Prev Med 2011

Prevention Science
https://doi.org/10.1007/s11121-023-01532-2

Normalization of Prevention Principles and Practices to Reduce Substance Use Disorders Through an Integrated Dissemination and Implementation Framework

Zili Sloboda[1] · Kimberly A. Johnson[2,3] · Diana H. Fishbein[4,5] · C. Hendricks Brown[6] · J. Douglas Coatsworth[7] · Dean L. Fixsen[8] · Denise Kandel[9] · Mallie J. Paschall[10] · Fernando Salazar Silva[11] · Harry Sumnall[12] · Michael Vanyukov[13]

Accepted: 21 March 2023

ELSEVIER

Mental Health & Prevention

Volume 33, March 2024, 200322

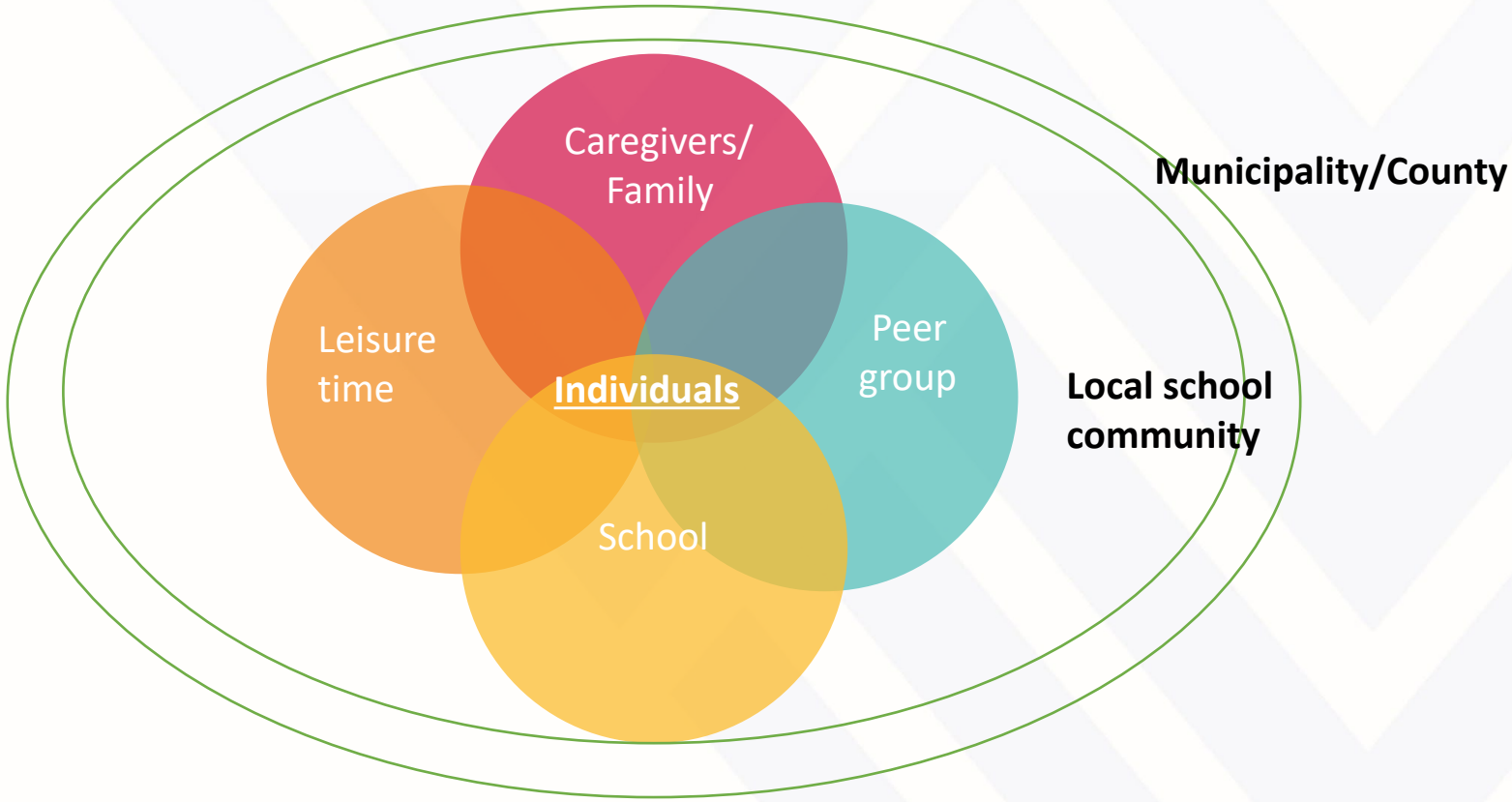
Using effective community coalitions to prevent mental and behavioral disorders on a national scale

John W. Toumbourou [a], Elizabeth M. Westrupp [a], Michelle Benstead [a], Bianca Klettke [a], Elizabeth M. Clancy [a], Adrian B. Kelly [b], Nicola Reavley [c], Bosco Rowland [a d]

Implementation example

Icelandic Prevention Model (IPM)
Integrated Community Engagement (ICE) Collaborative in WV

IPM/ICE Risk and protective factor domains, and intervention focus



Sigfusdottir et al., 2009. *Health Promotion International*

Testing the multi-domain assumption (Iceland data)

HEALTH EDUCATION RESEARCH

Vol.36 no.3 2021
Pages 309–318
Advance Access published 12 January 2021

Testing risk and protective factor assumptions in the Icelandic model of adolescent substance use prevention

Alfgeir L. Kristjansson[1,2]*, Christa L. Lilly[3], Ingibjorg E. Thorisdottir[2,4], John P. Allegrante[2,5,6], Michael J. Mann[7], Jon Sigfusson[2], Humberto E. Soriano[8] and Inga Dora Sigfusdottir[2,4,5]

Testing the multi-domain assumption (US data)

Longitudinal test of multiple risk and protective factor domains for early substance use onset: Implications for primary prevention policy and practice

Alfgeir L. Kristjansson, Christa L. Lilly, Michael J. Mann., Megan L. Smith, Steven M. Kogan

Background reading

Health Promotion Practice (2020). Volume #21, issue #1

Sigfusdottir, ID, Soriano, HE, Mann, MJ, Kristjansson, AL (2020). Prevention is Possible: A Brief History of the Origin and Dissemination of the Icelandic Prevention Model. *Health Promotion Practice*, 21(1), 58-61.

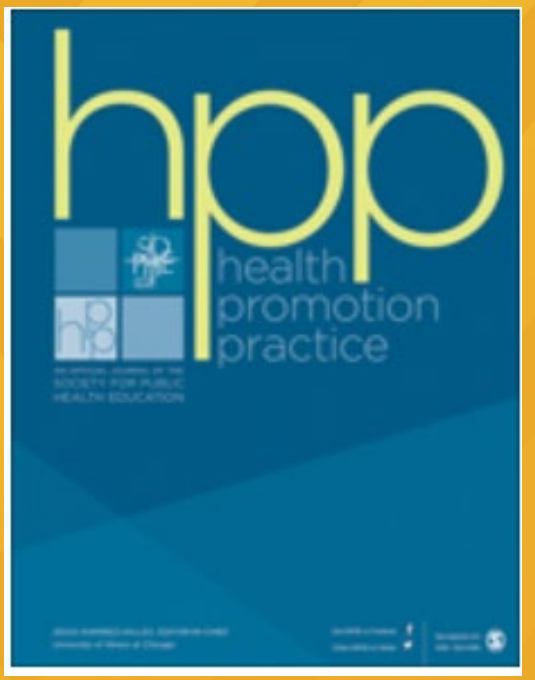
- ***Brief historical overview***

Kristjansson, AL., Mann, MJ., Sigfusson, J., Thorisdottir, IE., Allegrante, JP., Sigfusdottir, ID. (2020). Development and Guiding Principles of the Icelandic Model for Preventing Adolescent Substance Use. *Health Promotion Practice, 21(1),* 62-69.

- ***Five guiding principles***

Kristjansson, AL., Mann, MJ., Sigfusson, J., Thorisdottir, IE., Allegrante, JP., Sigfusdottir, ID. (2020). Implementing the Icelandic Model for Preventing Adolescent Substance Use. *Health Promotion Practice, 21(1)*, 70-79.

- 10 steps to implementation



WestVirginiaUniversity.

The five guiding principles of the IPM/ICE

1. **Apply a primary prevention approach** that is designed to enhance the social environment.
2. **Emphasize community action** and embrace public schools as the natural hub of the neighborhood/ efforts to support child and adolescent health, learning, and life success.
3. **Engage and empower community members** to make practical decisions using local, high quality, accessible data and diagnostics.
4. **Integrate researchers, policy makers, practitioners, and community members** into a unified team dedicated to solving complex, real-world problems.
5. **Match the scope of the solution to the scope of the problem**, including emphasizing longterm intervention and efforts to marshal adequate community resources.

Kristjansson et al., 2020a. *Health Promotion Practice*

10 Steps to Implementing the IPM/ICE

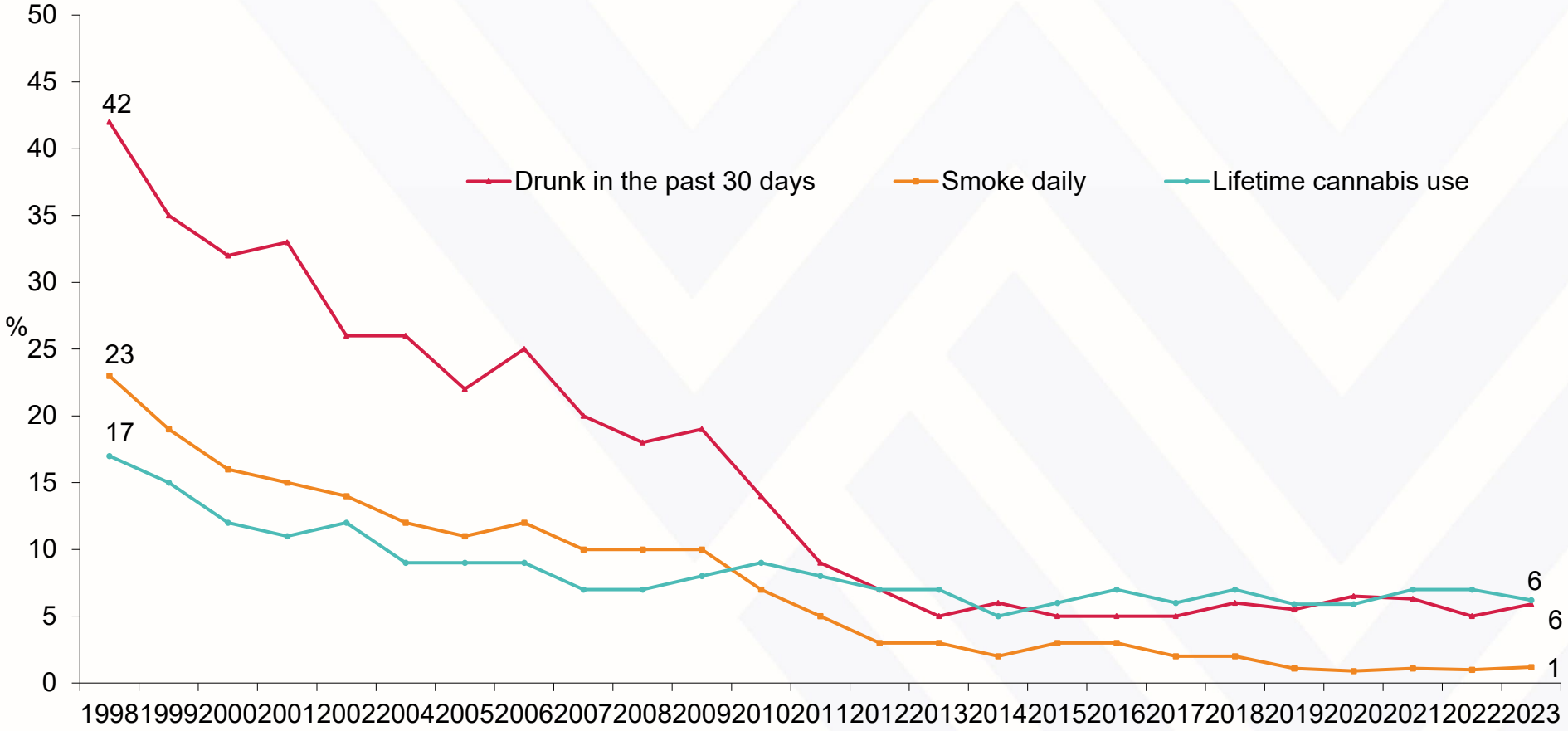
Kristjansson et al., 2020b. *Health Promotion Practice*

WestVirginiaUniversity.

The IPM/ICE is..

- NOT a program
- **A process-structure to form, maintain, and nurture collaborative partnerships in primary prevention**
  - Everything is data driven
  - Collaboration is THE CENTRAL feature of the model

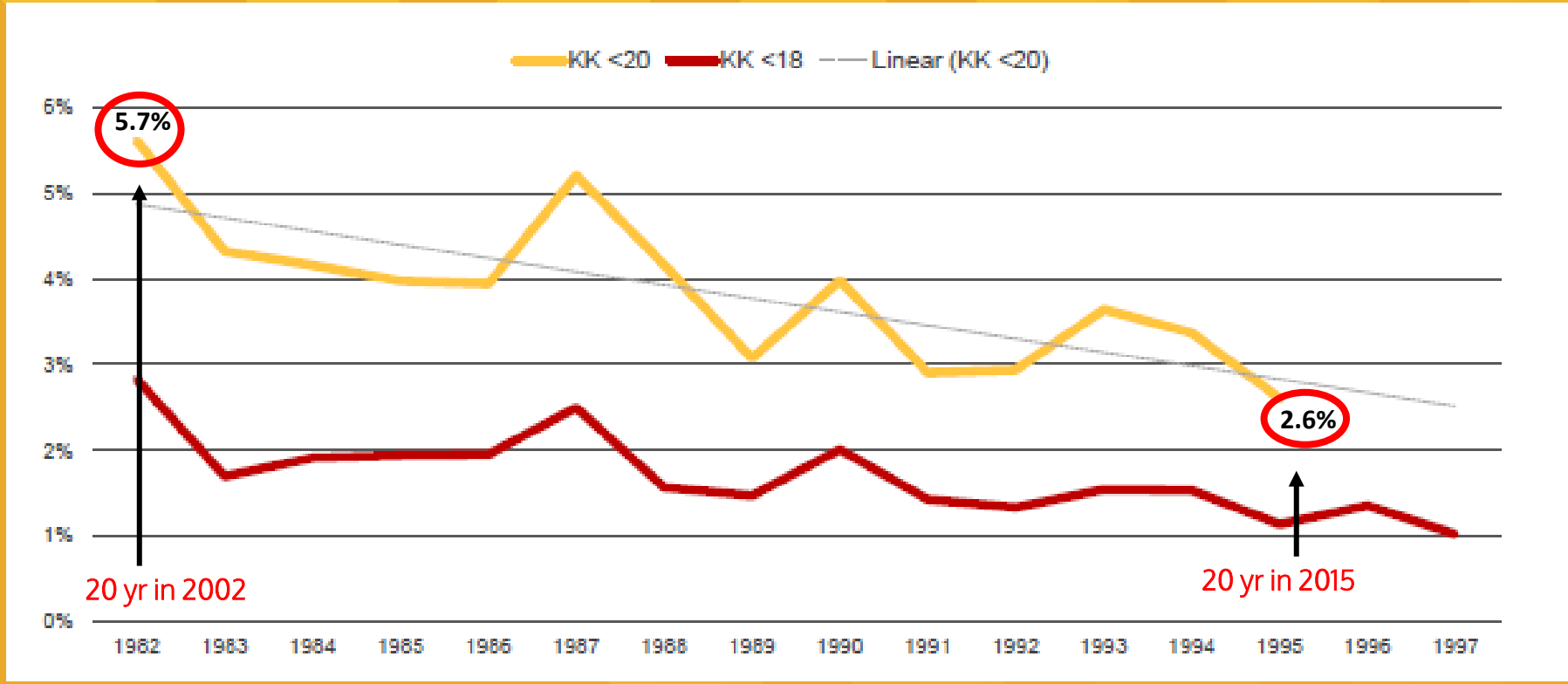
Trends in substance use among 10th grade students in Iceland, 1998-2023



Data: The Icelandic Centre for Social Research and Analysis, ICSRA/ 2023

Young men enrolled into drug treatment in Iceland: Population cohort proportion over time

Source: SÁÁ Annual Report 2016



Evaluation of impact and outcome

Preventive Medicine 51 (2010) 168–171

Contents lists available at ScienceDirect

Preventive Medicine

journal homepage: www.elsevier.com/locate/ypmed

Adolescent substance use, parental monitoring, and leisure-time activities: 12-year outcomes of primary prevention in Iceland

Alfgeir Logi Kristjansson [a,b,*], Jack E. James [c], John P. Allegrante [d,e], Inga Dora Sigfusdottir [a], Asgeir R. Helgason [a,b]

[a] Centre for Social Research and Analysis, School of Health and Education, Reykjavik University, 2 Ofanleiti, 103 Reykjavik, Iceland
[b] Department of Public Health Sciences, Division of Social Medicine, Karolinska Institute, Stockholm, Sweden
[c] School of Psychology, National University of Ireland, Galway, Ireland
[d] Department of Health and Behavior Studies, Teachers College, Columbia University, New York, NY 10027, USA
[e] Department of Sociomedical Sciences, Mailman School of Public Health, Columbia University, New York, NY 10032, USA

ICE objective: Assess the feasibility of replicating the Icelandic Prevention Model in two Rural West Virginia Counties (~16 school communities, total population ~60,000)

Research design: Repeated (annual) cross-sequential school-based survey with all accessible middle and high-school students

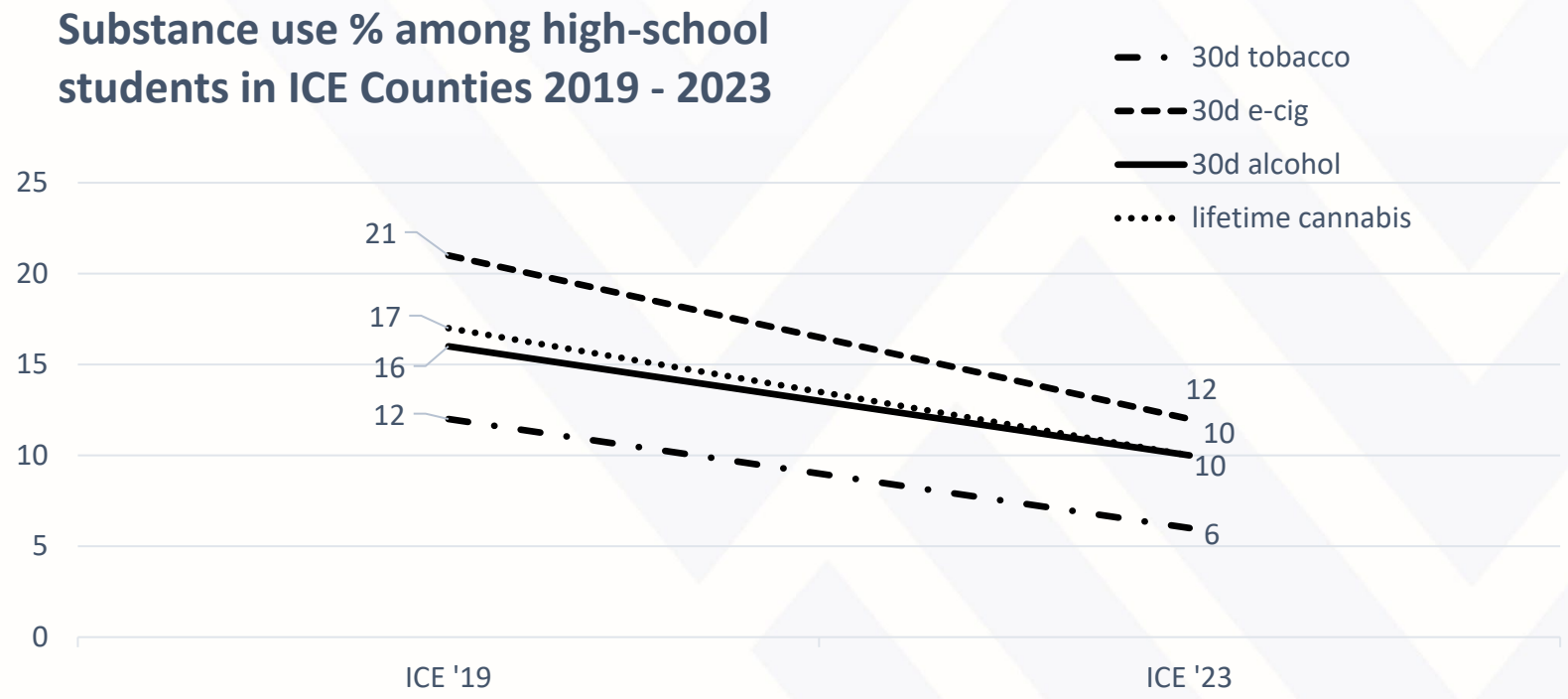
Implementation and Translation: 10 implementation steps in collaboration with two county coalitions

Funder: CDC PRC Program (U48 mechanism, Co-PIs Kristjansson, Mann)

Duration: 2019-2024

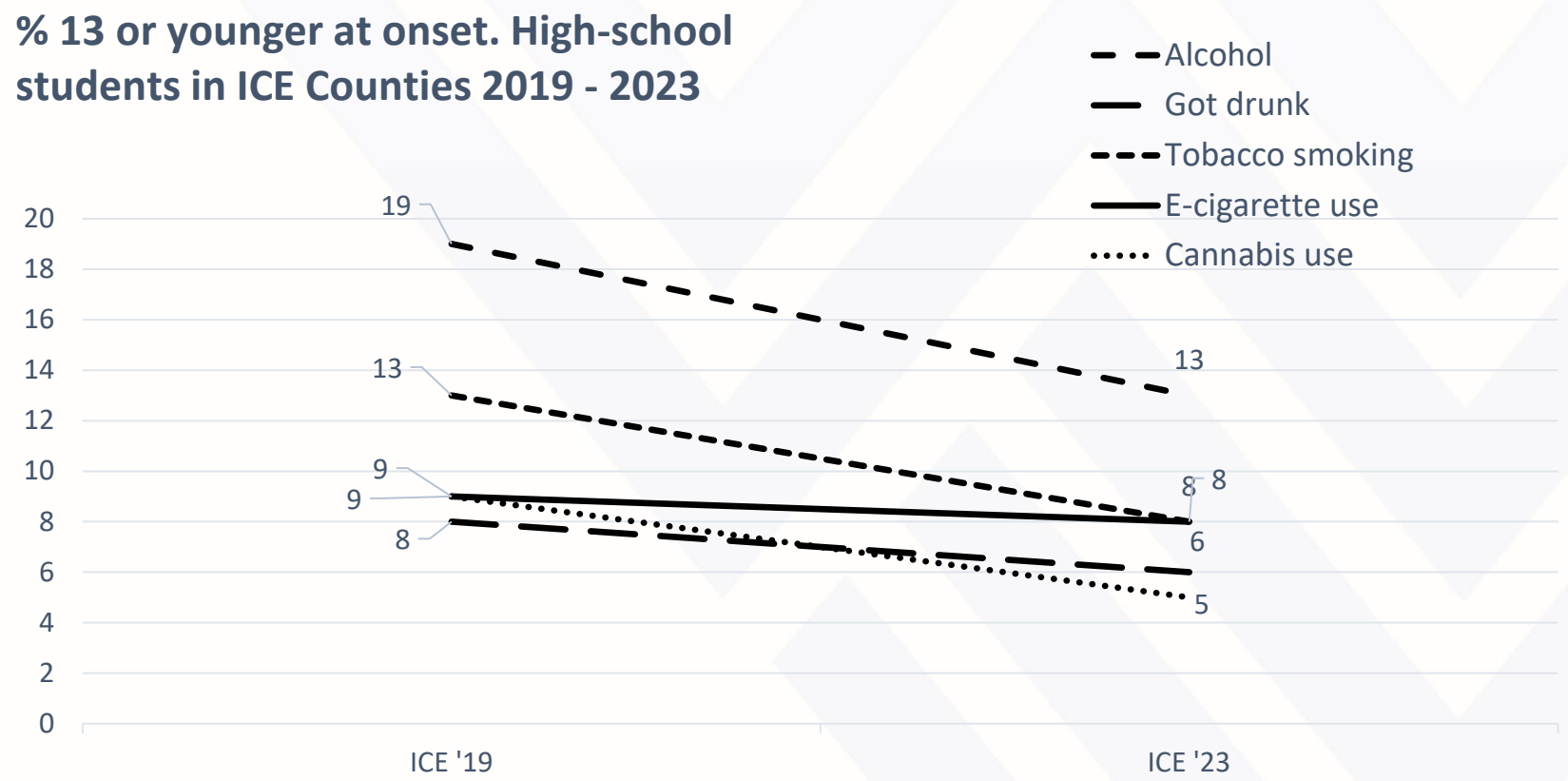
PREVENTION RESEARCH CENTERS

IPM/ICE WV: Substance use results



Kristjansson et al., forthcoming

IPM/ICE WV: Early onset substance use



Kristjansson et al., forthcoming

IPM/ICE WV: Community capacity building process data (3 years)

# Community data dissemination presentations	149
# Attendees reached in community data presentations	10,253
# Added paid positions and college interns	19
# Total volunteer hours to support implementation	15,230
Federal grant dollars acquired	$2,107,900
# New PA or organized leisure time interventions	20

Publication forthcoming

SUBSTANCE USE & MISUSE
https://doi.org/10.1080/10826084.2024.2423373

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ORIGINAL ARTICLE

Icelandic Prevention Model in Rural Appalachian Communities: Gauging Stakeholder Experience with the Core Processes Three Years into County-Level Implementation

Stephen M. Davis[a], Kelly Rossetto[b], Megan L. Smith[c], Michael J. Mann[c], Jessica Coffman[d] and Alfgeir L. Kristjansson[d,e]

[a]Department of Health Policy, Management and Leadership, School of Public Health, West Virginia University, Morgantown, WV, USA; [b]Department of Communication, Boise State University, Boise, ID, USA; [c]School of Public and Population Health, Boise State University, Boise, ID, USA; [d]West Virginia Prevention Research Center, School of Public Health, West Virginia University, Morgantown, WV, USA; [e]Department of Social and Behavioral Sciences, School of Public Health, West Virginia University, Morgantown, WV, USA

SUBSTANCE USE & MISUSE
https://doi.org/10.1080/10826084.2024.2423373

Taylor & Francis
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ORIGINAL ARTICLE

Check for updates

Icelandic Prevention Model in Rural Appalachian Communities: Gauging Stakeholder Experience with the Core Processes Three Years into County-Level Implementation

Stephen M. Davis[a], Kelly Rossetto[b], Megan L. Smith[c], Michael J. Mann[c], Jessica Coffman[d] and Alfgeir L. Kristjansson[d,e]

[a]Department of Health Policy, Management and Leadership, School of Public Health, West Virginia University, Morgantown, WV, USA; [b]Department of Communication, Boise State University, Boise, ID, USA; [c]School of Public and Population Health, Boise State University, Boise, ID, USA; [d]West Virginia Prevention Research Center, School of Public Health, West Virginia University, Morgantown, WV, USA; [e]Department of Social and Behavioral Sciences, School of Public Health, West Virginia University, Morgantown, WV, USA

"In the grand scheme of prevention, I think that [collaboration] has exponentially increased since bringing in the [ICE] project and working with you all because it was a little bit more localized to each school on what they had and what they could do. Now it's more of a countywide initiative, and so there's more collaboration, and there's more input from outside resources and more people coming in to help."
"I think the ICE intervention model leaves a lot open for communities to really interpret what they need specifically for them. So that's what I like about the prevention model is that it really helps communities plan for their strengths and weaknesses and look at how they can be protective."
"It all rolls back down through that data because we now have the support to back up what we're asking for..."
"For me, this is the first thing that I've actually seen and witnessed in my community where we're changing lives, and we're changing the trajectory of things through prevention, and through engagement..."

WestVirginiaUniversity.

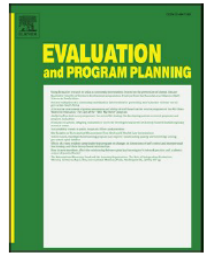
Assessing the IPM 10-step process

Evaluation and Program Planning 106 (2024) 102451

Contents lists available at ScienceDirect

Evaluation and Program Planning

journal homepage: www.elsevier.com/locate/evalprogplan



The Icelandic Prevention Model Evaluation Framework and Implementation Integrity and Consistency Assessment

Michael J. Mann [a,1], John P. Allegrante [b,c], Megan L. Smith [a], Inga Dora Sigfusdottir [d,e], Alfgeir L. Kristjansson [e,f,*,1]

[a] School of Public and Population Health, Boise State University, Boise, ID 83725, USA
[b] Department of Health and Behavior Studies, Teachers College, Columbia University, New York City, NY 10027, USA
[c] Department of Sociomedical Sciences, Mailman School of Public Health, Columbia University, New York, NY 10032, USA
[d] Department of Psychology, Reykjavik University, Reykjavik 101, Iceland
[e] Icelandic Centre for Social Research and Analysis, Reykjavik 101, Iceland
[f] Department of Social and Behavioral Sciences and WV Prevention Research Center, School of Public Health, West Virginia University, Morgantown, WV 26506, USA

WestVirginiaUniversity.

IPM/ICE WV: Return on Investment (preliminary data)

Two counties

- Low vs. High implementation county (based on scoring from Mann et al., 2024)

- High implementation county valued at +$2,000,000 in saved cost
- Low implementation county valued at -$900,000 in added cost

McCullough et al. *Forthcoming*

In sum: How is the IPM/ICE different?

- Primary prevention => not so much about drugs, more about community building and collaboration
- Focus on environmental change, not individual responsibility
- Community-, and practice-oriented: Assumes and allows for variation between local communities
- Not a top-down program, - a collaborative between researchers, policy makers, practitioners and community members
- Consistent and repetative (recency)
- Data reporting on level with practical utility (locality)

Thank you!

“Give me six hours to chop down a tree and I will use the first four to sharpen the axe”

Questions/interests:
alkristjansson@hsc.wvu.edu