

ADAPT Substance Use Prevention Technical Webinar Series

EQUIP: A Model to Guide You in Constructing Persuasive Prevention Messages

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RESOURCE SUPPLEMENT

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ADAPT: A Division for Advancing Prevention & Treatment

Mission

ADAPT is a division within the Center for Drug Policy and Prevention at the University of Baltimore. The mission of ADAPT is to advance knowledge, skills, and quality outcomes in the field of substance use prevention while supporting successful integration of evidence-based strategies into communities.

Goals

1. Advance substance use prevention strategies through essential training and technical assistance services and resources.
2. Promote public health and public safety partnerships in substance use prevention.
3. Prepare the future public health and public safety workforces through student engagement in ADAPT operations and projects.

HIDTA Prevention

ADAPT supports the National High Intensity Drug Trafficking Area (HIDTA) Program by operationalizing the National HIDTA Prevention Strategy. ADAPT assists HIDTAs with implementing and evaluating substance use prevention practices within their unique communities. ADAPT also keeps HIDTA communities up to date with advances in prevention science. A variety of trainings and technical webinars to cultivate, nurture, and support hospitable systems for implementation are offered throughout the year.




Technical Assistance

Technical assistance is available to all HIDTA communities in the following domains:

1. Identification of Best Practices in Substance Use Prevention
2. Training
3. Implementation
4. Evaluation
5. Finance/Budgeting
6. Sustainability

CONNECT WITH US ON SOCIAL MEDIA!

For frequent updates from ADAPT, be sure to *follow* and *like* us on the platforms below. These platforms provide an opportunity to share resources and connect with each other.

Platform	Direct Link
	Like our Facebook page today: https://www.facebook.com/ADAPT-100681361632663/
	Follow our LinkedIn Company page for the latest insights and updates: https://www.linkedin.com/company/adapt-a-division-for-advancing-prevention-treatment
	Subscribe to our YouTube channel for informative video content! https://www.youtube.com/channel/UCbxhs3Kx69_OfAMw628PO7w/

For more information, email us at adapt@wb.hidta.org.

To be notified of upcoming webinars, products, and events, subscribe [here](#)!

ADAPT Upcoming Events

Concept Addressed	Technical Webinars (1.5 hours)	Date
Program Planning	Program Planning Fundamentals	2/18/21 Archived on YouTube
Program Evaluation	Program Evaluation: Getting to Outcomes	3/4/21 Archived on YouTube
Risk Factors	Interventions to Reduce Risk Factors for Substance Use	3/23/21 Archived on YouTube
Protective Factors	Interventions to Promote Protective Factors for Substance Use	4/8/21 Archived on YouTube
Persuasive Messaging	Persuasive Message Strategies in Substance Use Prevention	5/6/21 Archived on YouTube
Persuasive Messaging Part II	EQUIP: A Model to Guide You in Constructing Persuasive Prevention Messages	6/3/21 3:00-4:30pm EST
Value Analysis	The Value of Prevention: Demystifying the Cost-Benefit Analysis	6/15/21 2:30-4:00pm EST
Appraising Evidence	Understanding Emerging, Promising, & Best Prevention Practices	6/23/21 2:30-4:00pm EST
Youth Engagement	Ways of Being with Youth	TBD

For each webinar, a corresponding 10-15 minute **Prevention Pearl** will be released.

Subscribe [here](#) for event announcements, including our upcoming **Evidence Based Practice Spotlight** series.





National Prevention Science Coalition

to improve lives

The National Prevention Science Coalition to Improve Lives (NPSC) was formed as a vehicle to facilitate the use of prevention science findings and evidence-based practices to improve social conditions that otherwise contribute to poor mental, behavioral and physical health. The NPSC is composed of over 700 scientists (representing over 75 universities and organizations), educators, clinicians, practitioners, communications specialists, policymakers and advocates. Domains of interest include inequalities and disparities, mental health, substance misuse, poverty, juvenile justice, child development and welfare, violence, and police-community relations, just to name a few.

Over the past 30 years, prevention science has identified key environmental and social factors that harm health and wellbeing, along with several programs, practices, and policies shown to reduce harm. The Institute of Medicine issued a report in 2009 about what prevention science has achieved. It noted that society now has the knowledge to ensure that virtually every young person arrives at adulthood with the skills, interests, values, and health habits they need to lead productive lives in caring relationships with others. We formed the NPSC to help convey this knowledge to the public and policy arenas.

Effective strategies for preventing behavioral and health problems come from the accumulated research about the risk factors that lead to problems, and the protective factors that prevent them. Prominent among these risk factors are deleterious environmental conditions such as poverty, economic inequality, and discrimination, conditions that increase stress, conflict, and coercive relationships. Neuroscience, epigenetics and behavioral science converge in showing that stress and conflict contribute to the development of most of the psychological and behavioral problems that reduce quality of life and contribute directly to inflammatory processes that lead to poor health and premature death.

With this knowledge, prevention scientists developed programs and policies to prevent multiple problems. At least 16 family-based programs have been shown to significantly improve the quality of family life and prevent many problems (e.g., antisocial behavior, anxiety, depression, alcohol and other substance misuse, risky sexual behavior, school absences, and academic performance). Numerous tested and effective school-based interventions can prevent multiple problems, from early childhood into adulthood. In addition, more than 40 policies have proven benefits in increasing families' economic and social stability.

Extensive analyses of the costs and benefits of these programs indicate that most cost far less than reactive approaches and they save in reduced healthcare, criminal justice, and educational costs, and in increased income to recipients. And perhaps of greatest importance is the potential for the principles that underlie effective interventions, once infused into our mindsets and daily practices, to have an enduring impact on subsequent generations.

We know the science exists to improve lives on a population level. The challenge is to make this knowledge accessible to the public, as well as to policymakers and administrators in federal, state, and municipal agencies that can use it to improve public policy. Few are aware of the wealth of rigorous and replicated research findings generated by prevention science. The NPSC is committed to informing policymakers and the public about the need to widely implement effective preventive interventions and fully embrace their principles by applying them in our daily interactions with children and youth.

NPSC Closes the Gaps

NPSC addresses the major obstacles that often discourage policymakers from drawing on prevention science to formulate effective policies. Major barriers include:

- Prevention research is captured in academic journals where findings are presented in technical language. NPSC educates policymakers and the public through briefings, policy papers, op-eds, fact sheets, and other means that report the science in an accessible format;
- The volume and complexity of new research is daunting. NPSC helps policymakers to distill and analyze key research, making it relevant to conditions in the districts they represent or regions over which they have jurisdiction;
- Policy makers often lack access to scientists who can interpret new research on prevention science and

draw connections to public policy. NPSC members include internationally prominent experts on the prevention of many of the most common and costly problems our nation contends with. We make ourselves available to policy makers and their staff for consultation and advice;

- Members of Congress and their staff lack personal relationships with researchers, which studies have found is an impediment to the use of research by policymakers. NPSC works to promote relationships between policy makers and researchers based on mutual trust, respect and responsiveness;
- Research findings often remain in silo'd disciplines such as neuroscience or social psychology. NPSC grants policy makers access to interdisciplinary teams who can draw on various fields of study, analyze the best data, and make recommendations to strengthen specific policy proposals; and
- Policy makers have limited access to objective, non-partisan sources of information and analysis on policy. Policymakers embrace NPSC as a source of nonpartisan information and advice which is transparent, honest, impartial, and free of any preconceived policy agenda.
- There are many settings that present opportunities for “knowledge mobilization”, one of 3 key goals for NPSC. We offer resources, informational materials, and expertise to governing bodies, school districts, community groups and stakeholders, primary care settings, foundations, and others that play a role in the nurturance of our children and youth.

Accomplishments

Since its creation in 2013, the NPSC has made significant progress in advancing the case for prevention. It has:

- Created a coalition of over 700 members and more than 60 nationally prominent organizations to promote prevention. A list of these organizations is available at <http://www.npscoalition.org/affiliations>.
- Formed the Congressional Prevention Policy Caucus to make the science accessible on Capitol Hill.
- Provided training to increase the capacity of NPSC members and scientists to advocate for prevention. We conduct workshops, trainings and resources useful for bridging science and policy.
- Hosted 20 [congressional briefings](#). Topics include school violence, child poverty, prevention of violence against women, childhood poverty, home visiting, police-community relations, budgeting for evidence-based prevention, and the prevention of human trafficking.
- Published numerous essays in outlets such as the *New York Times*, *Huffington Post*, *Baltimore Sun*, *JAMA*, *This View of Life*, and others, plus scholarly papers and books designed to promote greater use of prevention science.
- Provided consultation and technical assistance to the federal Evidence-Based Policy Making Commission and to state and local governments and healthcare and human services agencies regarding implementation of evidence-based prevention.

Strengthening Our Impact

Scientific evidence of what works holds the key to preventing problems that can ruin lives and devastate communities. Prevention science, which aims to eliminate problems before they take root, has the ability to place children and youth on the track to lead productive and healthy lives. The extensive expertise of NPSC members across multiple disciplines enables us to advise foundations and policymakers regarding implementation of effective practices and policies with potential to prevent the entire range of mental and behavioral problems.

For more information, contact:

- Diana Fishbein, Ph.D., Research Faculty at Pennsylvania State University, Director of Translational Neuro-Prevention Research at UNC, and Co-Director of the NPSC. dfishbein@psu.edu
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www.npscoalition.org

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National Prevention Science Coalition

to improve lives

WHAT IS PREVENTION SCIENCE?

Summary:

For 50 years, Prevention Science has generated practices that improve countless lives by strengthening the conditions for individuals, families, and communities to thrive. A wide range of effective programs and policies are now available to achieve these results. Strategies have been identified that fully support widespread scale-up, increase effective supports, and foster nurturing environments across all communities. By leveraging the policymaking process, we can ensure that the benefits of these advances reach all communities across our country.

Description:

Prevention science focuses on the development of evidence-based strategies that reduce risk factors and enhance protective factors to improve the health and wellbeing of individuals, families, and communities. Prevention science draws from a diverse range of disciplines—including the epidemiological, social, psychological, behavioral, medical, and neurobiological sciences—to understand the determinants of societal, community and individual level problems (e.g., trauma, poverty, maltreatment). A central tenet of prevention science is the promotion of health equity and reduction of disparities by studying how social, economic and racial inequalities and discrimination influence healthy development and wellbeing. For well over 50 years, prevention science has generated practices and policies that have improved countless lives throughout the lifespan by avoiding negative health and social outcomes (e.g., addiction, academic failure, violence, mental illness) and strengthening conditions that enable individuals, families, and communities to thrive.

The policies, programs, and practices generated by the field have been shown to reduce the incidence and prevalence of individual and community vulnerabilities and to promote healthy lifestyles, including:

- 1) Promoting daily physical activity to protect against chronic disease;
- 2) Disrupting pathways to substance use, abuse and addiction across the lifespan;
- 3) Improving academic and behavioral outcomes with the expansion of high-quality childcare and early learning and development, and promoting positive and supportive school environments;
- 4) Enhancing community-wide capacity to attenuate detrimental conditions and increase access to supportive services;
- 5) Increasing resilience, social competency and self-regulation in order to reduce impulsive, aggressive and off-task behavior; and
- 6) Supporting the development of healthy relationships to reduce interpersonal and domestic violence.

Moreover, evidence-based prevention strategies that address systemic and structural inequalities in neighborhoods, educational, and criminal justice practices have been developed and implemented.

The application of well-tested practices, strategies and policies generated by prevention science can lead to substantial cost-savings by investing in upstream strategies to avoid downstream costs. Examples of these investments include programs that prevent drug use in adolescents, reform educational practices, and support families to reduce the financial and human burden to communities. An integrated delivery system of comprehensive evidence-based prevention strategies that crosses many public sectors (e.g. education, child welfare, juvenile justice, health) is most cost-efficient and exerts wide scale benefits. Providing scientifically-based guidance and resources to legislative and administrative decision-makers will facilitate the integration of best practices from prevention science into policy.

A wide range of effective, well-tested programs and policies are available to achieve these results. Moreover, the field continues to harness the potential for prevention science to improve lives on a population level by further expanding upon the evidence-base. The impact on individual lives, systems (e.g., schools, child welfare), communities, and society can increase exponentially with additional investment of resources and systems to support the development, evaluation, and implementation of evidence-based programs and policies.

NATIONAL PREVENTION SCIENCE COALITION TO IMPROVE LIVES

Weblinks

1. The National Prevention Science Coalition to Improve Lives (NPSC)

www.npscoalition.org

The NPSC envisions a society that fosters nurturing environments and caring relationships for the well-being of all. This page highlights the evidence-based productions and projects used to protect individuals and their societies, including recent publications and congressional briefings.

2. The Impact Center at the Frank Porter Graham (FPG) Child Development Institute

<https://impact.fpg.unc.edu>

The Impact Center at the University of North Carolina at Chapel Hill focuses on how effective prevention strategies are implemented to improve the wellbeing of individuals up to large scale communities. The three focus areas include Implementation Support, Quality and Outcome Monitoring, and Media and Networking.

3. Program for Translational Research on Adversity and Neurodevelopment

www.p-tran.com

The Program for Translational Research on Adversity and Neurodevelopment at Pennsylvania State University uses a neuroscientific approach to understand, and therefore prevent, behavioral health issues. The goal of this program is to utilize applied research to impact child development, families, and communities.

4. The Coalition for the Promotion of Behavioral Health

<https://www.coalitionforbehavioralhealth.org/training-modules/>

The Coalition for the Promotion of Behavioral Health offers four different training modules for students, professionals, and the public created by coalition members. These include: 1) Introduction to Prevention Theory and Concepts, 2) Direct Practice in Prevention, 3) Community Prevention Practice, and 4) Policy Prevention Practice.

5. Life Skills Training Shields Teens From Prescription Opioid Misuse

<https://archives.drugabuse.gov/news-events/nida-notes/2015/12/life-skills-training-shields-teens-prescription-opioid-misuse>

This article summarizes three intervention given to 7th grade students from the PROSPER prevention program (or PRoMoting School-community-university Partnerships to Enhance Resilience): 1) Life Skills Training, 2) All Starts, and 3) Project Alert. This overview outlines findings from a four-year follow up, notably a decrease in the use of drugs and/or alcohol.

Substance Use Prevention Fundamentals Webinar: Using the EQUIP Model in Message Development



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Roadmap:

What I will try to accomplish today

- Brief discussion of what we have learned from earlier research on persuasion...
 - Wait, I thought we were talking about prevention
- I'll explain
- Discuss components of the EQUIP
- One bad message (couldn't resist)
- Score sheet
- Practice with some substance-preventive messages, discussing strengths and possible improvements

PREVENTION ALMOST ALWAYS REQUIRES PERSUASION

Preventing Drug Abuse



ADAPT 2 EQUIP MODEL

3

Background Assumptions

- Success has been sporadic, due to
 - Lack of focus on fundamental question – How can I prevent someone from doing what they might want to do?
 - Ignorance –
 - Failure to understand that this question involves persuasion, and
 - Lack of knowledge about what we know – theories, research, etc.
 - Hubris –
 - I can avoid 70 years of research on persuasion and succeed
 - Possible...if you are very lucky, but
 - Don't bet your house on it
 - A relatively consistent focus on punishment rather than reinforcement

4

Steps in Persuasion

- Induce audience to attend to your message
- Induce them to think about your message
- Present information in way that is difficult to counter
- Get buy-in and commitment to act
- A single presentation doesn't do much – rinse & repeat
- Boost message effect with “booster shots”
- Not that → → → → →
- Cute doesn't work here

ADAPT 2 EQUIP MODEL

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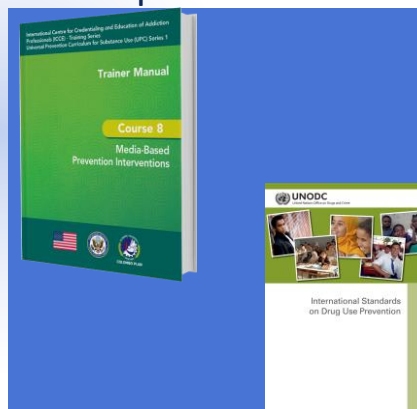
Advice from Communication & Persuasion

- Consider the old communication-analysis formula:
 - WHO SAYS WHAT TO WHOM, HOW, & With WHAT EFFECT?
- WHO: Source: Credible (expert & trustworthy)
Audience specific --- Dr. Fauci & low-hanging fruit
- WHAT: Message – why we're here today
- WHOM: Audience
- HOW: Medium
- EFFECT: Did it work?

6

Our answer to the “WHAT”: **The EQUIP Model**, which integrates critical media and persuasion requirements for effective prevention

- **EQUIP** highlights the key design features for successful media-based persuasion
- It is based on 70 years of strong, well-established evidence



ADAPT 2: EQUIP MODEL

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Introducing the EQUIP Model

- The EQUIP is a model of message development, a how-to-do-it template that prompts the message developer of the many things that must be included in a persuasive communication to maximize its effectiveness
- EQUIP is a acronym, “a word (such as *NATO*, *radar*, or *laser*) formed from the initial letter or letters of each of the successive parts or major parts of a compound term”
- EQUIP stands for the things your persuasive message must do if it is to succeed:
 - **E**ngage
 - **Q**uestion (the belief to be changed)
 - **U**ndermine (that belief)
 - **I**ncore (new info building on the alternative belief)
 - **P**ersuade

ADAPT 2: EQUIP MODEL

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The EQUIP Template

Engage	Engage: Attract and maintain attention of your audience
Question	Question: Raise question in mind of receiver about their pro-drug attitude – goal is to show that not everyone shares the person's belief, nothing more
Undermine	Undermine: Destabilize the existing attitude
Inform	Inform: Provide plausible replacement of existing belief
Persuade	Persuade: Provide incentives for agreement with your message: use misdirection, positive framing, vested interest, etc., in developing your appeal

ADAPT 2 EQUIP MODEL

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Let's consider a memorable ad from an early media campaign in the U.S.



ADAPT 2 EQUIP MODEL

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Let's Evaluate the Ad using the EQUIP

- **ENGAGE**: Did it attract people's attention? **Yes, initially.**
- **QUESTION**: Did it raise a question in viewers' minds? **No.**
- **UNDERMINE**: Did it threaten existing beliefs & provide alternative? **No.**
- **INFORM**: Did it tell you how to avoid frying your brain? **No.**
- **PERSUADE**: Was it persuasive? **No.** It is telling me to avoid a drug, but not how to do it, or why I should... It will fail.
- **BUT**, years later, Americans still remember the **'this is your brain on drugs'** ad, highlighting the **HUGE** difference between memorability and persuasiveness

ADAPT 2 EQUIP MODEL

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Important working assumptions

- People do not always believe what they are told in substance prevention messages
- We need to overcome their **resistance** to attain positive preventive effects
- The first and major consideration: expect **counter-arguments**
- The EQUIP can help overcome these defensive reactions

ADAPT 2 EQUIP MODEL

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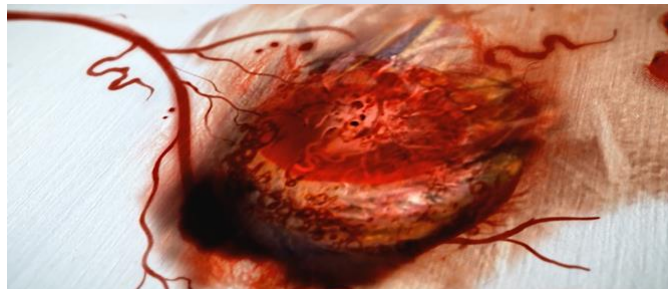
Building on the Persuade component of EQUIP

- 'Make resistance difficult, impossible, or apparently unnecessary
- Target or tailor the persuasive message to the susceptibilities of the audience – what do they care about?
- When dealing with young adult audiences: Use message sources the care about – don't let them take the easy way out – "He doesn't know what he's talking about..."

ADAPT 2 EQUIP MODEL

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Australian video linking alcohol and cancer



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Let's Evaluate This Ad using the EQUIP

- **ENGAGE**: Did it attract people's attention?
- **QUESTION**: Did it raise a question in viewers' minds?
- **UNDERMINE**: Did it threaten existing beliefs & provide alternative?
- **INFORM**: Did it tell you about the problem, and how to avoid it?
- **PERSUADE**: Was it persuasive? **Memorable? Do you want to see it again?**

ADAPT 2 EQUIP MODEL

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Anti-mj ad from Above the Influence: "Dog"



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Let's Evaluate This Ad using the EQUIP

- **ENGAGE**: Did it attract people's attention?
- **QUESTION**: Did it raise a question in viewers' minds?
- **UNDERMINE**: Did it threaten existing beliefs & provide alternative?
- **INFORM**: Did it tell you about the problem, and how to avoid it?
- **PERSUADE**: Was it persuasive? **Memorable? Do you want to see it again?**

ADAPT 2 EQUIP MODEL

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LIGHTENING ROUND

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Other Useful Examples: A poster of this kind might persuade vulnerable youth to avoid nicotine, especially if they're concerned about their appearance, if not their lungs

Not all messages have to be in video format

- Example of a brochure ad or a poster possibly useful in a high school
- Medium of diffusion is not fixed.
- This pix is in response to the "HOW" of the "who says what to whom, how, & with what effect"
- Using this reminds me to remind you to pick your spots – you probably would not want to use this in an AARP convention





- **We ♥ Smokers**
- “Heck, we love everybody. Our philosophy isn’t anti-smoker or pro-smoker. It’s not even about smoking. It’s about the tobacco industry manipulating their products, research and advertising to secure replacements for the 1,200 customers they ‘lose’ every day in America. You know, because they die.”

A Poster from The “Truth Campaign,” which Was Designed To Deter Adolescent Tobacco Use



- **We ♥ Smokers**
- “Heck, we love everybody. Our philosophy isn’t anti-smoker or pro-smoker. It’s not even about smoking. It’s about the tobacco industry manipulating their products, research and advertising to secure replacements for the 1,200 customers they ‘lose’ every day in America. You know, because they die.”



Billboards

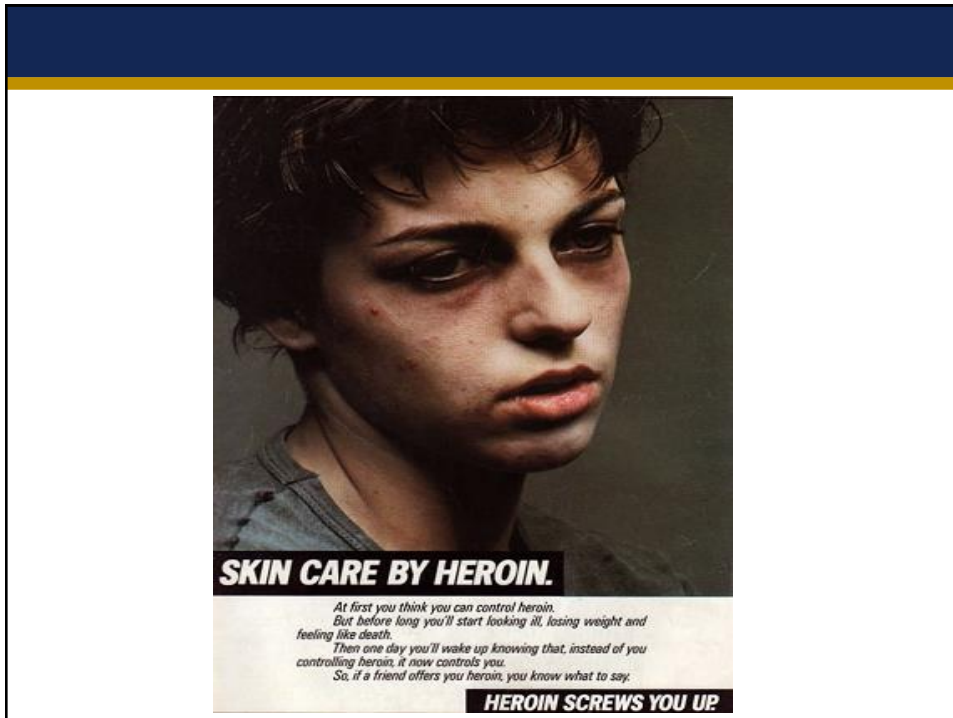
- Can be quite useful, but remember the limits of the medium
- Can't deliver much information, but can encourage reader to seek it out (see URL) →
- The info delivered to an interested reader can prove decisive





Poster might be useful near a pediatric hospital





Some advice on EQUIP'S "Persuade" component

- **Do not over-promise or over-threaten:**
 - Fear arousing ads usually fail – Avoid them
 - Unbelievable ads usually fail – Avoid them
 - Exaggerated ads usually fail – Avoid them
 - Whimsical ads usually fail – Avoid them
 - Disgusting ads usually fail – Avoid them
 - Current failures result in future failures by reinforcing resistance
 - For young adults, involve opinion leaders as message sources, but choose carefully
 - Try to create a norm of abstinence or avoidance

ADAPT 2 EQUIP MODEL

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Questions?

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Thank you for your participation, ideas,
and observations



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Some possibly useful references

- Books & Chapters
- Crano, W. D. (2012): *The rules of influence; Winning when you're surrounded and outnumbered*. St. Martin's Press.
- Crano, W. D. (1995). Attitude strength and vested interest. In R. E. Petty & J. A. Krosnick (Eds.), *Attitude strength: Antecedents and consequences. The Ohio State University series in attitudes and persuasion* (Vol. 4, pp. 131-157). : Erlbaum.
- Crano, W. D., & Burgoon, M. (2001). Vested interest theory and AIDS: Self-interest, social influence, and disease prevention. In F. Butera & G. Mugny (Eds.), *Social Influence in social reality: Promoting individual and social change*. Hogreve & Huber.

31

Some possibly useful references

- Articles:
- Sivacek, J., & Crano, W. D. (1982). Vested interest as a moderator of attitude-behavior consistency. *Journal of Personality and Social Psychology*, 43, 210-221.
- Crano, W. D. (1997). Vested interest, symbolic politics, and attitude-behavior consistency. *Journal of Personality and Social Psychology*, 72, 485-491.
- Lehman, B. J., & Crano, W. D. (2002). The pervasive effects of vested interest on attitude-criterion consistency in political judgment. *Journal of Experimental Social Psychology*, 38(2), 101-112.
- Johnson, I. M., Siegel, J. T., & Crano, W. D. (2014). Expanding the reach of vested interest in predicting attitude-consistent behavior. *Social Influence*, 9(1), 20-36.

32

Some possibly useful references

- Donaldson, C., Siegel, J.T., & Crano, W.D. (2016). Nonmedical use of prescription stimulants in college students: Attitudes, intentions, and vested interest. *Addictive Behaviors*, 53, 101-107.
- De Dominicis, S., Crano, W. D., Ganucci Cancellieri, U., Mosco, B., Bonnes, M., Hohman, Z., & Bonaiuto, M. (2014). Vested interest and environmental risk communication: Improving willingness to cope with impending disasters *Journal of Applied Social Psychology*, 44, 364-374.
- Siegel, J. T., Donaldson, C. D., & Crano, W. D. (2019). Application of vested interest theory to prevention of non-medical prescription stimulant and marijuana use: Unforeseen benefits of attitude-behavior inconsistency. *Drug and Alcohol Dependence*, 194, 210-215.
- Crano, W. D., Donaldson, C. D., Siegel, J. T., Alvaro, E. M., & O'Brien, E. (2019). Selective Invalidation of Ambivalent Pro-marijuana Attitude Components. *Addictive Behaviors* 97, 77-83 .

33

Some possibly useful references

- Staunton, T. V., Alvaro, E. M., Rosenberg, B. D., & Crano, W. D. (2020). Controlling language and irony: Reducing threat and increasing positive message evaluations. *Basic and Applied Social Psychology*, 42,(5), 369-386.
- Donaldson, C. D., Alvaro, E. M., Ruybal, A. L., Coleman, M., Siegel, J. T., & Crano, W. D. (in press). A rebuttal-based social norm tailored cannabis intervention for at-risk adolescents. *Prevention Science*.
- Coleman, M., Donaldson, C. D., Crano, W. D., Pike, J. & Stacy, A. (2020). Associations between family and peer e-cigarette use with adolescent tobacco and marijuana usage: A longitudinal path analytic approach. *Nicotine & Tobacco Research*, internet release.
- De Dominicis, S., Ganucci Cancellieri, U., Crano, W. D., Stancu, A., Bonaiuto M. (2021). Experiencing, Caring, Coping: Vested Interest mediates the effect of Past Experience on Coping Behaviors in Environmental Risk Contexts. *Journal of Applied Social Psychology*, 51, 286-304.

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Some possibly useful references

- Lamb, C. S., & Crano, W. D. (2014). Parents' beliefs and children's marijuana use: Evidence for a self-fulfilling prophecy effect. *Addictive Behaviors*, 39(1), 127-132.
- Donaldson, C.D., Handren, L.M., Crano, W.D. (2016). The enduring impact of parents' monitoring, warmth, expectancies, and alcohol use on their children's future binge drinking and arrests: A longitudinal analysis. *Prevention Science*, 17, 606-614.

Using the EQUIP Model in Substance Use Prevention Messaging:

Resources Recommended by the Presenter

Resource
Crano W.D., Alvaro E.M., Siegel J.T. (2019) Creating Persuasive Substance-Use Prevention Communications: The EQUIP Model. In: Sloboda Z., Petras H., Robertson E., Hingson R. (eds) Prevention of Substance Use. Advances in Prevention Science. Springer, Cham. https://doi.org/10.1007/978-3-030-00627-3_19
Crano W.D. Using an Evidence-based Approach to Judge the Likely Effectiveness of Prevention Campaign Appeals: A Preliminary Methodology for Judgment.



Creating Persuasive Substance-Use Prevention Communications: The EQUIP Model

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William D. Crano, Eusebio M. Alvaro,
and Jason T. Siegel

Creating Persuasive Substance-Use Prevention Communications: The EQUIP Model

Media-based campaigns designed to discourage use of psychoactive substances have not fared well. Although notable prevention successes have been reported, they are not common (e.g., Derzon & Lipsey, 2002; Head, Noar, Innarino, & Harrington, 2013). Recent failures of large-scale, comprehensive prevention campaigns have given rise to doubts among policymakers about the elemental effectiveness of media-based psychoactive substance-use (PSU) prevention efforts, and research does little to assuage these doubts (e.g., Hornik, Jacobsohn, Orwin, Piesse, & Kalton, 2008). For example, mass media prevention campaigns were either not carried out or cut back in more than one-third of the 30 countries involved in the European Monitoring Center for Drugs and Drug Addiction (n.d.). In a comprehensive review of the evidence-based literature on media-based PSU prevention campaigns, the United Nations Office on Drugs and Crime (UNODC) stated, “in combination with other prevention components, [media campaigns] can

prevent tobacco use (reporting median reduction of 2.4 per cent) ... no significant findings were reported for alcohol abuse, and only weak findings with regard to drug use” (UNODC, 2015, p. 27; but see Derzon & Lipsey, 2002; Snyder & Hamilton, 2002).

The UNODC’s (2015) review noted several features that appeared to enhance the effects of media-based PSU prevention efforts, but these factors were rarely studied in the meta-analyses, which typically contrasted only campaign presence or absence. Among others, these factors include identifying a specific target group; basing messages on established theory and thorough formative research; achieving widespread and frequent exposure; targeting parents in preventing adolescent PSU; and providing credible information about normative use rates, which often are widely overestimated (Crano, Gilbert, Alvaro, & Siegel, 2008; Martens et al., 2006). Review of media-based PSU prevention studies revealed that few studies met even some of these recommendations (Crano, Siegel, & Alvaro, 2012).

Given media’s (and media campaigns’) less than sterling record of success, questions regarding its utility and advisability in PSU prevention efforts may appear well founded. However, we believe the cause of the media’s apparent futility as instruments of PSU prevention has been misidentified. To accept the assessment that the media cannot effectively deliver preventive information is to ignore the fact that the media are merely vehicles through which persuasive communications are

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delivered. We argue that it is not the media that have failed as instruments of prevention, but rather the messages the media have conveyed. A pen that does not write may be deemed worthless, but the judgment is premature if the pen has not been filled with ink. Similarly, judgments of the media as ineffectual purveyors of preventive information are premature if the messages they deliver are not persuasive. The medium is *not* the message; it is merely a mechanism through which the message is transported (apologies to McLuhan, 1964). Failure of media-based prevention efforts may be the result of the (ineffective) messages, the very heart of all persuasion campaigns, rather than the medium through which the messages are delivered. This chapter is designed to prompt a more measured judgment of media “failures,” and to describe a middle-range prototype, the EQUIP model of message development, that may materially enhance the effectiveness of future media-based PSU prevention campaigns.

Persuasion and Message-Based PSU Prevention

The UNODC (2015) suggested crucial reasons why media-based PSU prevention attempts have not lived up to expectations. Although some well-planned, well-intentioned, and comprehensive efforts (e.g., the National Youth Anti-drug Media Campaign) largely anticipated the proffered advice—to target a specific audience, use established theory, achieve wide exposure, and attack exaggerated usage norms—the fundamental components of any persuasion campaign, the messages that constituted its “deliverables,” would not be deemed persuasive by many with even an elementary knowledge of the science of persuasion. The focus on the persuasiveness of messages is intentional, because successful media- or communication-based prevention almost inevitably involves persuasion, and persuasion almost always involves overcoming receivers’ resistance to the appeal (Crano, Alvaro, Tan, & Siegel, 2017; Crano & Prislin, 2006), except in rare instances in which a PSU prevention communication involves only information

about a substance unknown to the targeted group, and hence is not designed to *change* attitudes but to *inform* (e.g., “WARNING!!! Newly available street heroin has been cut with fentanyl. It is responsible for ten deaths in the city in the past week.”). In a nutshell, we hold that message-based prevention failures usually involve a failure of the persuasiveness of the communications, not the mechanism used to deliver them.

The Less than Optimal Choice of Theory

The UNODC’s advice to base media prevention approaches on established theory is eminently sensible, but the established theories that have been used to realize this directive operate at a level largely uninformative of the proper design of persuasive appeals. Consider the major theories used to guide research in prevention. These include, among others, Ajzen and Fishbein’s (2005) theory of planned behavior, the health belief model (Rosenstock, 1974), social learning theory (Bandura, 1974), the transtheoretical (stages of change) model (DiClemente & Prochaska, 1982), and social norms theory (Perkins & Berkowitz, 1986). These theories point to some of the factors linked to PSU, but they operate at a level that is removed from the mechanics involved in constructing the persuasive messages designed to affect these factors, a fundamental of message-based prevention. The models operate at or near the abstract level of “grand theory” (Mills, 1959; Parsons, 1937/1968), and thus provide only Delphic advice on the means needed to develop persuasive PSU prevention messages. Their guidance is well taken. They recommend factors theoretically linked to attitude and behavior change, and variables that interrupt the progression from abstinence to initiation to consistent use; but they are *not* informative with respect to the specifics of message construction; they tell us what to do, but not how to do it.

Consider Ajzen’s (1991) theory of planned behavior (TPB), a model with considerable explanatory power, one of whose key propositions stresses the importance of subjective norm

perceptions in influencing behavioral intentions, and hence behavior. Using the TPB as guidance, a researcher may find that substance use is perceived as normative in a targeted population, and as such is a powerful predictor of intentions. The conclusion obviously is to focus on changing norms. But how is this to be done? How should messages be developed to maximize persuasion? The theory begs the question.

Creating an Optimal Model of Message Development

Merton (1994, p. 13) persuasively argued “for ‘theories of the middle range’ as mediating between gross empiricism and grand speculative doctrines.” Middle-range theories provide more explicit and actionable advice about the construction and arrangement of the basic building blocks of persuasive communications (Merton, 1991), which are required if we are to mount serious PSU prevention research. Consistent with Merton’s views, we believe that media-oriented PSU prevention models should integrate the tenets of grand theory approaches with fundamental ideas about the ways in which the theories may be realized in the design of actionable research. It is one thing to have a grand theory that specifies the variables critical in persuasion, and quite another to have a usable model that specifies how these variables can be realized. We propose just such an approach, the EQUIP model of persuasive communication development. It appeals to and integrates the pioneering work of Lasswell (1948, 1951) and his influential and informative communication “formula” with Hovland and associates’ message-learning theory (Hovland, Janis, & Kelley, 1953) and McGuire’s (1985) communication-persuasion model.

The Unique Role of Resistance in Persuasion

Before discussing the origins and development of the EQUIP model in detail, we must consider the role of resistance in persuasion. In our view,

message-based persuasion presupposes receivers’ resistance except under the most trivial of circumstances, which typically involve beliefs that are not vested or self-relevant (Crano, 2001, 2010). In contentious contexts in which established attitudes are held, persuasive communications must be designed to overcome the resistance that arises inevitably from attempts to change these beliefs. The greater the perceived importance and hedonic relevance of the attitude, the more difficult it is to change. In this scheme, messages designed solely to inform audiences about the dangers of an unfamiliar substance (e.g., “Avoid RP32, a new substance on the city’s streets that has killed seven people in the past week.”) would not completely satisfy our definition of a *persuasive* communication, at least for most audiences, who would have no established attitude about the substance, and thus little reason to resist information recommending its avoidance—unless, of course, the message receiver had developed a mindset to resist any prevention-relevant communications (Crano et al., 2012; Tormala & Petty, 2004).

The EQUIP Model of Persuasive Message Development

EQUIP is an acronym for a communication design model that outlines evidence-based message features expected to maximize the likelihood of successful persuasion. It is based on insights of the mid-level theories of Lasswell, Hovland, and McGuire, whose unique but complementary views have influenced persuasion research for decades.

Lasswell. The view of the communication process variables that must be considered in creating a communicative appeal was expressed by Lasswell (1948) in a single, if complex, question that requires we understand “*Who says what to whom, and with what effect?*” His question is useful because it prompts researchers to be mindful of specific features involved in the persuasion process: the communication source (the *who*), message content and delivery medium (the *what*), and message target (to *whom*) when assessing a

communication's persuasive outcome (*with what effect?*). These are key elements of any persuasive message, and they must be considered when developing effective appeals.

Hovland. The message-learning theory of Hovland and colleagues is complementary to Lasswell's formula, if considerably more involved. It prescribes the requirements a communication must satisfy if it is to be persuasive. According to Hovland et al. (1953), a persuasive communication must raise a question in the mind of the receiver (e.g., "Are you certain that prescription opioids are not dangerous?"), it must answer the question ("Prescription opioids can be as addictive and as dangerous as street heroin."), it must offer some incentive to overcome receivers' reluctance to accept the proffered answer ("Some of the world's leading experts in human physiology agree."), and ideally it should present an explicit or implicit conclusion ("Therefore, according to a comprehensive study published by renowned scientists from the Johns Hopkins Bloomberg School of Public Health, this substance and its derivatives should be avoided unless prescribed by a physician for a specific problem."). Combined with Lasswell's formula, Hovland provides a useful framework for message-based persuasion. Of central importance to our view of persuasion is that Hovland's approach recognizes that persuasive contexts almost inevitably involve resistance, else why bother with questioning established beliefs and developing methods to overcome it.

McGuire. Following Hovland, the communication-persuasion model of McGuire (1985) designates crucial input variables to be considered, along with the mediating and outcome variables that affect the ways these factors operate. McGuire's input variables are congruent with Hovland and Lasswell's formulas, and include source ("who"), message ("what": content and medium), target (to "whom"), and focus of the communication (e.g., marijuana, heroin, amphetamines, gambling, overeating). Its outcome variables include, among others, attention, understanding, and attitude change. McGuire's distinction differentiates among evaluative outcomes. It suggests, for example, that if attitude

change is the research focus, a message that merely attracts attention (e.g., "This is your brain on drugs ...") is likely to disappoint.

The insights of Lasswell, Hovland, and McGuire provide the foundation for the development of a theory of message construction that has long been called for in communication and persuasion research, often promised, and rarely realized. Complexities involved in the design of persuasive messages have stymied systematic message development in prevention science. Arguably, the factors that must be controlled when designing effective messages, along with their many combinations, have seriously retarded progress. An organizing model is needed, integrating the working parts of the persuasion process, alerting researchers to critical and theoretically requisite features of persuasive communication, and ensuring that they are not ignored. Ideally, this model would incorporate insights from "grand" theories, and build on them with the EQUIP, a middle-range theory detailing ways in which their insights might be tested.

Components of the EQUIP Model

The EQUIP model of message development was designed to highlight and take advantage of the features deemed necessary by the three foundational middle-range models of Lasswell, Hovland, McGuire in creating persuasive communications. To meet the requirements of the EQUIP, the communication must Engage receivers, Question their established belief, Undermine or destabilize the belief, Inform the receiver of a superior alternative, and Persuade the receiver to accept this alternative. Each of these interacting requisites should be met if the communication is to have maximal effect.

Engage

Capture and maintain attention. The first and most obvious feature of the Engage requirements is to capture message receivers' attention to the persuasive communication. If it does not engage

the audience, the communication cannot be expected to initiate the attitude-change process. The Engage function involves two distinct but related processes. The message must attract audience members' attention (Groenendyk & Valentino, 2002) and be sufficiently engaging to ensure that attention is maintained throughout the message's presentation (Wyer & Shrum, 2015). An interesting realization of the Engage principle is found in a brief ad developed in the Truth's anti-smoking campaign (<https://www.thetruth.com/the-facts/fact-190>):

**FORMALDEHYDE IS FOUND IN
CIGARETTE SMOKE.
IT'S ALSO USED TO PRESERVE DEAD
ANIMALS.**

The opening line of the ad was meant to draw attention. We believe it succeeded for most readers. The attention probably persisted during the short time it took readers to process its brief appeal, which was followed by a citation of research from the National Cancer Institute. It was devised to cause young people to avoid or quit tobacco use, and presented information that probably surprised most of its young audience. It did not fulfill all of the EQUIP functions, but paired with the Truth brand may have succeeded in motivating many to learn more, and perhaps reconsider the desirability of tobacco use.

Content or Executional Variables. This attention-inducing example relies on message content to engage message receivers. Engagement is fostered by the content of what is said or written. This can be an effective and common approach. However, noncontent *executional features* also can engage targeted audience. Executional features include color (the Truth ad used alternating green and white print), and in video presentations the number or rapidity of cuts, music, movement, vividness, flashy graphics, topical relevance, etc. (see Ophir, Brennan, Maloney, & Cappella, 2017).

Attractiveness. The source of a communication also may be considered a significant executional element. Attractive sources are likely to garner more attention, which may augment message effects if their message is strong (Petty &

Cacioppo, 1986). Attractiveness appears to affect explicit and implicit evaluations (Smith & De Houwer, 2014). Attractiveness can be a disadvantage, however, as enhanced message elaboration may lead message receivers to recognize its weaknesses. The ideal parlay involves attractive message sources paired with strong messages, which the EQUIP is designed to enable.

Source-statement incongruity. Attention also must be paid to the interaction between message sources and message content. Messages contrary to those expected to emanate from a communication source often have been found to be more believable, and hence persuasive, than those judged as consistent with the source's established position (Koeske & Crano, 1968).

This tactic is found in a bright orange poster ad from the Truth campaign, which stated,

WE ♥ SMOKERS, followed by, "Heck, we love everybody. Our philosophy isn't anti-smoker or pro-smoker. It's not even about smoking. It's about the tobacco industry manipulating their products, research and advertising to secure replacements for the 1,200 customers they "lose" every day in America. You know, because they die."

The unexpectedness of the ad's opening line was meant to capture attention, owing to the unfavorable normative status of smokers in the United States. The follow-on text presented arguments with a high degree of irony (appealing to adolescents), and delivered the ad's preventive material. The unexpectedness of the communication neutralized the perception of its manipulative intent, thereby enhancing its effect (Briñol, Rucker, & Petty, 2015).

Expectancy violations. The unexpectedness of a communication also affects its persuasiveness. Expectancy violation theory (EVT) holds that violating the expected tone and content of a communication can augment or diminish its effect (Burgoon, Dillard, & Doran, 1983). In persuasion, an expectancy violation disrupts the normal conversational conventions by adopting an unexpected position, or using irony or unexpectedly extreme or mild language. Such language usages violate expectancies resulting in more persuasive ads, probably via the same cognitive pathways

operative in source-statement incongruity effects (Siegel & Burgoon, 2002).

Self-relevance, or vested interest of the message. Whereas message features discussed to this point may effectively garner attention, topics that affect the receiver's vested interest can motivate receivers to elaborate a communication. If the message is strong, enhanced elaboration will foster acceptance, because enhanced elaboration exposes the message's strong or weak points (Petty, Wegener, & Fabrigar, 1999). Considerable research has shown that the vested interest construct operates as a significant moderator of attitude-behavior consistency across a range of behaviors (De Dominicis et al., 2014; Donaldson, Siegel, & Crano, 2016; Lehman & Crano, 2002). With strong messages of the type that can be developed through careful adherence to the requirements of the EQUIP model, intense message elaboration favors a positive persuasive outcome.

To engage an audience, then, researchers should consider using one or another of the following theory and evidence-based recommendations: Draw on message content or executional variables to capture and maintain attention. Pair expected sources with unexpected positions (source-statement incongruity). Positively violate receivers' expectancies regarding the language used in a substance prevention message (language expectancy violation). And ensure messages that are perceived by receivers are important and self-relevant (vested interest).

Question

The function of EQUIP's Question phase is to reduce a receiver's certainty in the validity of the attitude that is the focus of the persuasive appeal. Hovland et al.'s (1953) middle-range persuasion theory holds that to induce attitude change, a communication must raise a question in the receiver's mind about the validity of an established belief. In EQUIP, raising a question about an established attitude is not designed to change the belief, but rather to introduce a degree of uncertainty about it. Youth vary in the certainty

with which they hold their different attitudes. Youth may be ambivalent, holding both positive ("Using marijuana will make me seem more grown up.") and negative beliefs ("Using marijuana might result in my being expelled from school.") about the advisability of using a substance. Inducing and capitalizing on uncertainty could prove a useful stage in the attitude-change process.

Uncertainty also may play a positive role in one's broader belief system. Attitudes, especially complex attitudes, are linked structurally in the cognitive network to related beliefs, often resulting in relations among attitudes that are not internally consistent or logical (Crano & Lyrantzis, 2015). One might, for example, applaud one's political party's economic plans, detest its stand on same-sex marriage, and be indifferent to party members' sometimes overindulgent use of gin. Inducing reflection or doubt regarding the validity of the attitudes that comprise the structure is sufficient for the Question phase of the EQUIP. With Festinger (1957) and most other consistency theorists (Abelson et al., 1968), we assume that holding valid attitudes is an important human need. Raising questions about an attitude's validity should lower resistance to change.

Normative Consensus and Meta-Cognitive Theory

Attitudes held with high certainty are assumed to enjoy normative consensus ("everyone believes this"). Assumed consensus is positively associated with the self-relevance of the attitude (Crano, 1983). That assumed normative consensus bolsters beliefs also is a central tenet of Tormala and colleagues' meta-cognitive model of attitude resistance and change (Barden & Tormala, 2014; Tormala & Petty, 2004), which postulates that attitudes are more easily changed if the certainty with which they are held is reduced by a persuasive message. In prevention applications, attitude certainty is strengthened when the individual weathers an influence attempt, and the more powerful the resisted attack, the greater the certainty gain. The implication of the meta-cognitive

model is that failed persuasion attempts lessen the likelihood that future persuasive efforts will succeed.

In summary, the function of the Question phase of the EQUIP model is to introduce in the individual a degree of uncertainty about the correctness of a critical attitude. Attitudes vary in the extent to which they are thought to be consensual. If the assumed consensus surrounding an attitude is weakened or brought into question, it becomes more susceptible to change. This enhancement of susceptibility does not necessarily result in attitude change; rather, its readiness to change is heightened. Conversely, unsuccessful attempts at attitude change strengthen resistance to subsequent persuasive communications.

Undermine

Developing communications that raise questions about the validity of an attitude is a necessary requisite of the EQUIP model, but merely raising doubts, a natural outcome of the attack on assumed consensus, usually is not sufficient to cause change. The EQUIP model requires that the persuasive message not only raise doubt about a belief's validity, but provide a credible alternative to the destabilized attitude, a reason to abandon the attitude and adopt a new position. Successful undermining capitalizes on the weakened attitude brought about by the attack on consensus surrounding the original belief. By providing arguments that confirm the legitimacy of the doubt that was raised, and providing a credible alternative, the Undermine process legitimizes the doubts introduced in the Question phase, and promotes attitude change (e.g., see Crano, Gorenflo, & Shackelford, 1988; Crano & Sivacek, 1984).

The Question and Undermine phases of the EQUIP go hand in hand. The first of the two processes weakens the consensus surrounding a belief, and the second takes advantage of this weakened attitude to posit an alternative, which resolves some or all of the unpleasant cognitive inconsistencies generated by the Question. Merely questioning a position may not be suffi-

cient to change a belief. Questioning is necessary to initiate the change process, but successful attitude change is more likely when a viable alternative position is made apparent in the Undermine phase.

Inform

Once a person is engaged with a persuasive communication and induced to question the validity of an established belief through the Question and Undermine processes, the destabilized attitude should be replaced or overlaid with one that is congruent with the position of the message source. This requires provision of topic-relevant information, as attitudes based on greater knowledge are stronger, more enduring, and more predictive of behavior (Fabrigar, Petty, Smith, & Crites, 2006). In the context of PSU prevention, evidence suggests that this information should focus on attitudes that influence use, and misconceptions about the effects of the substance under consideration; it should not disparage or threaten the user. Too often, the physical harms of the PSU are the sole focus of a persuasive communication. Audiences often perceive such messages as unrealistic. Such communications are resisted strongly.

Research on dual-process models of attitude change has stressed the importance of strong messages in persuasion (e.g., Petty & Cacioppo, 1986). The EQUIP model is designed to provide the basis to facilitate constructing such messages. A central issue involves the information contained in the message. In most cases, this information should be evidence based. It should not be based on opinion or hearsay, or on easily dismissed platitudes. Nor should it fly in the face of the audience's experience, for example, arguing that methamphetamines can be immediately addictive is true, but this is not an inevitable outcome. Thus, many view campaigns based on this threat as false, and we have learned that rejected persuasive communications make the acceptance of later ones less likely.

When developing the Inform feature of the EQUIP, it is important to ensure that the PSU pre-

vention argument is not immediately rejected by those whose experience belies its apparent truth. Further, threatening harms that might occur in the distant future is not likely to prove effective, nor is it useful to present information about the dangers of a substance that are well known and widely accepted. These mistakes represent wasted opportunities, as many substance users are cognizant of the dangers of their behavior; however, this is not to say that they respond well to threats (Maddux & Rogers, 1983). Calls for campaigns focusing on issues other than the physical harms of PSU are based on such findings (Halpern-Felsher, Biehl, Kropp, & Rubinstein, 2004). In promising research, Siegel, Alvaro, Lac, Crano, and Alexander (2008) found that information focusing on social (vs. physical) harms facilitated inhalant prevention efforts. A challenge to be overcome is that factors predicting PSU in one group may not be predictive in another.

Vested Interest

General principles of self-interest in persuasion may facilitate selection and development of information to maximize influence (Crano, 1995; Johnson et al., 2014). A primary informational goal is to provide evidence that PSU is not in the immediate or long-term self-interest of the audience members. Donaldson et al. (2016) found that the harms of PSU (or the benefits of avoidance) were most effective when the prevention messages focused on proximal outcomes. The benefits of abstinence projected into the distant future seem to have little effect on perceived self-interest, and hence on behavior (Crano & Prislin, 1995; Siegel et al., 2008).

In addition to the immediacy of the consequences communicated in the prevention message, its salience also should be considered. A persuasive communication will have a stronger effect on attitudes and actions if it is presented in a way that renders it salient when the potential for usage arises. Salience of PSU prevention is enhanced if it is a common topic of informed discussion in the respondent population (Prislin, 1988). Frequency of presentation of a message

bolsters its salience, although salience alone is not sufficient to induce change.

Certainty of outcomes of PSU or their avoidance also can be a positive factor in prevention. Many positive outcomes of adolescent PSU avoidance have been established—they include, among others, better school and job performance, and lower likelihood of car accidents, unintended pregnancies, or arrests in later life. These features can prove powerful inducements for abstinence or cessation, if presented with strong evidence and without exaggeration or unrealistic threat. However, knowing that one should avoid a substance and knowing how to do so involve different cognitions and behaviors. This is a prime reason why many prevention programs fail (Nancy Regan's "Just say no" and the original DARE campaign come to mind: see Donaldson, 2002; Lilienfeld & Arkowitz, 2014). Failure to provide the means necessary for targeted individuals to call to mind PSU prevention information may be a prime reason for the lack of clear effects of many media-based prevention campaigns.

In summary, the information provided in a persuasive communication can have a critical effect not only on its likelihood of success, but also on the likelihood of iatrogenic responses occurring in the event of persuasive failure. Decisions concerning the specific approach to be adopted in delivering a persuasive appeal are crucial, but the specifics of the delivered information are just as important. The general recommendation derived from the past 30 years of dual-process model research is that strong messages should be used if the audience is carefully elaborating (i.e., thinking about, considering) the communication. Strong messages are viewed as having a clear basis in evidence rather than opinion, and are presented in a logical and understandable fashion. A communication's effectiveness is enhanced if it contains novel and actionable information. Information that is already well known is unlikely to have much impact.

Fear-arousing communications, long-standing staples of prevention campaigns, focus on the threats posed by PSU. These communications can prove effective if they adhere to precise guidelines. They must maintain credibility, and

not exaggerate threats in terms of either severity or receivers' susceptibility. They must be presented by a highly credible source, who must provide specific advice about behaviors that can alleviate the threatened negative outcomes of use. If any of these elements is missing, the chance of persuasive failure is greatly increased. If these requisites cannot be satisfied, fear appeals should be avoided.

The information presented in a persuasive communication will be most effective if it engages the vested interest of the audience members. Discussing physiological effects that a substance user does not care about will not foster close message elaboration. In short, to ensure attention to a persuasive communication, ensure that audience members recognize that they are vested in the likely outcomes of their behaviors. At the same time, avoid setting expectations about the use of a substance that may be readily disproved or dismissed. Promised outcomes should comport with experienced reality to avoid message rejection and subsequent strengthening of the attitude that was the target of persuasion. Long-term outcomes of use of a substance are easy to relegate as inconsequential; thus, persuasive communications focused on avoiding near-term outcomes may prove more effective, even if they are less serious than long-term effects.

Persuade

As a group, the preceding elements of the EQUIP model—Engage, Question, Undermine, and Inform—set the stage for prevention. They are designed to highlight features that should guide development of persuasive communications that render message targets more accepting of its arguments. There remains a need to enact the final EQUIP element—to persuade. A compelling communication is required after satisfying the earlier features of the EQUIP if it is to be accepted, thereby changing an established attitude. Ideally, this changed attitude also will affect behavioral intentions and subsequent behaviors.

To this point in the EQUIP cycle, intended targets of persuasion have been engaged by a com-

munication, led to question current beliefs, exposed to communicative elements designed to undermine those beliefs, and provided with new information relevant to establishing new attitudes that discourage PSU. However, receivers have not yet been induced to accept this new information and the concomitant beliefs, intentions, and actions that follow from it. Two key considerations for implementers of the final EQUIP element include the need to motivate acceptance, and to mitigate resistance, or counterargumentation, allowing for a reasonably open-minded elaboration of the PSU persuasive prevention communication.

Motivation plays a central role in persuasion. At a minimum, receivers must be encouraged to consider the position advocated in a persuasive communication. What is the impetus to process and perhaps accept this new information, thereby modifying a currently held attitude? Motivating factors include holding valid beliefs (Festinger, 1957), holding beliefs congruent with those of significant others (e.g., holding prescriptively normative beliefs: Ajzen, 1991), maintaining attitudinal congruence with one's behavior (e.g., attitude-behavior consistency: Crano, 1997, 2000; Donaldson et al., 2016; Fabrigar, Wegener, & MacDonald, 2010), and being consistent with one's values (e.g., Deci & Ryan, 2002, 2010). These are but some of the factors motivating acceptance of new information and attitude change.

In mitigating counterargumentation, considerable evidence dating to Hovland et al.'s (1953) early research supports what Gilbert (1991) called the *Spinozan* perspective, which assumes that comprehension of new information and its acceptance "are not clearly separable psychological acts, but rather that comprehension includes acceptance of that which is comprehended" (p. 107). Only after initial acceptance of a communication—an automatic response in the Spinozan framework—is the truth value of the information examined critically. This position accords with Grice's (1975, 1978) maxims that conversations follow principles of cooperation and mutual understanding, which specify, among others, the norm that apposite, truthful, and relevant messages are exchanged between communicants in the course of normal social interaction.

Subsequent rejection of accepted information is predicated on a resource-heavy message evaluation process that follows the initial tendency to accept the message. The initial communication is accepted to the extent that the evaluation process is interrupted, forestalled, or judged unnecessary. To reject new or incoming information involves a follow-on contemplative process of counterargumentation after its initial (automatic) acceptance. Thus, a key objective of persuasion is to defuse or circumvent resistance at least until after the initial cognitive elaboration of the message, thereby enhancing the likelihood that new information, initially and tentatively accepted, is not rejected upon subsequent consideration. Forestalling the process of counterargumentation is a central feature of most persuasive techniques, and is a logical outgrowth of the Spinozan perspective.

Gruder and associates (1978) reported strong research that indirectly supports the Spinozan orientation. In their experiment, participants read a strong communication that argued in favor of a 4-day workweek. Immediately at the end of the message, which was formatted as a glossy magazine article to enhance its credibility, half the subjects read a "Note from the Editor" that discounted the basic premise of the article, stating that the information it contained had been found to be false. Immediate posttest measurement revealed that those in the discounting condition were significantly less persuaded by the article than were those who had not received the disclaimer. However, a second posttest administered 6 weeks afterwards showed no differences between the groups. Over the intervening weeks, both groups' attitudes toward the 4-day workweek had become more favorable, but the attitudes of subjects whose communication was discounted grew significantly more favorable. After the 6-week delay, their scores were indistinguishable from those of the non-discounted subjects.

These results are consistent with a Spinozan interpretation, which holds that the group in the discounting condition had read the communication with an open mind, and had accepted the information as presented. Immediately thereafter, they learned that the information was false. They reasonably rejected the communication upon immediate attitude measurement, but the damage

had been done. The message had been accepted initially as true, if we are to believe Grice and Spinoza. Its gist was not undone by a subsequent process of counterargumentation because the editor's discounting mitigated the need for this resource-heavy cognitive investment. However, as time passed, the discounting cue faded and became dissociated from the message, and what remained was the initially accepted information. Given the discounting cue, the heavy lifting of counterargumentation became unnecessary, and this induced cognitive laziness discouraged participants from closely revisiting the message. Thus, the message originally accepted as true was adopted. This research focuses our attention on the critical nature of counterargumentation, and the ways in which the process can be deactivated, the central issue in persuasion. These results inform our understanding and application of the EQUIP. As cognitive misers, when lacking sufficient motivation, we favor avoiding cognitive effort. This economy is bought at a price: We cannot outsource counterargumentation.

Elements of Persuasive Communications

Earlier, we introduced three orientations that guided development of the EQUIP model. Of these, Lasswell's (1948; Lasswell & Leites, 1949) model supplies instructive insights regarding specific elements that should be considered when developing communications that persuade, the final phase of the EQUIP model. Lasswell's maxim, *Who says what to whom*, and with what *effect*, points precisely to these fundamental and essential features of persuasive messages.

The Source ("Who")

The very act of communicating presupposes a communicator—a source encoding and delivering a message to an intended receiver. In PSU prevention campaigns, a source may be clearly manifest or left implied. In the former instance, the source is identifiable and its characteristics open to examination and judgment. Receivers can use visual and

auditory cues to assess source features such as attractiveness, similarity, status, and expertise. In the case of implied sources, the absence of visual and sometimes identifiable auditory cues renders source characteristics to be inferred. In either case, perceptions of a message source can influence message acceptance. The phrase “perceptions of a message source” is intended, as it is the receiver’s perceptions of source characteristics that determine their impact. Consider a characteristic such as “attractiveness.” There is considerable support for the proposition that attractive sources are more persuasive than unattractive ones, but attractiveness is in the eye of the beholder. Formative research should be used to determine the most effective ways to operationalize source constructs for the predefined targets of persuasion.

It is important to distinguish manifest from implied sources. Whereas a message developer may manipulate features of a manifest source, those of an implied source can be difficult to control. A useful standard for message developers is to maintain as much control as possible over message creation, delivery, and interpretation. Thus, a strong case can be made for the use of explicit, rather than implied, message sources. In the absence of an explicitly identified source, receivers are left to speculate about its characteristics and motives. Given a counter-attitudinal message, it is unlikely that these attributions will be unilaterally favorable.

Credibility and Trustworthiness

Although orthogonal to the message, different features of the communication context can enhance communication effects. At least in part, source factors operate by enhancing engagement. Source features also may operate as heuristic cues that interact with content to enhance message strength (Ziegler & Diehl, 2003). A useful method of engaging an audience in message-based communication involves attributing a message to a source of high credibility. From Hovland’s classic work on source credibility (Hovland et al., 1953) to more contemporary studies (e.g., Smith, De Houwer, & Nosek, 2013), research indicates clearly that message sources

perceived as expert (i.e., as having the capacity to deliver valid information) or trustworthy (i.e., one whose persuasive appeals are not conditioned on personal gain) are more likely to persuade than sources who do not share these attributes.

The dual-process models of persuasion that have inspired considerable research in social psychology emphasize the audience’s close elaboration of communications as a prerequisite for persistent attitude change (Petty & Cacioppo, 1986). Arguably, credible message sources should excite greater message elaboration and less resistance. Thus, sources of high expertise and trustworthiness are more likely to persuade than those lacking these features.

Matching

Matching is concerned with the isomorphism of source and intended audience on noticeable features deemed important by receivers. Features commonly used in matching include age, gender, race or ethnicity, and social status. When matching, the aim is that receivers recognize, consciously or not, that the source is similar to them. In primary prevention campaigns addressing adolescent PSU, messages often feature sources that are peers of the intended audience; if the campaign involves an in-person presentation at a school or some other community setting, it is easy to select the appropriate source. However, most campaigns do not have this advantage, and thus the source might not match the intended receivers. With youth, it generally is assumed that younger audience will attend to sources somewhat older than they are; they are not likely to be influenced by younger message sources.

Risk or Usage Status

Message receivers at different stages of substance usage are susceptible to different forms of persuasive communication. For example, in an experiment involving young adolescents, Crano, Siegel, Alvaro, and Patel (2007) found that resolute nonusers were uniformly more favorably disposed to a PSU communication than vulnerable

(i.e., high risk) nonusers or users, and that difference held regardless of source status (adult or peer) or the target of the communication (in some of the experimental variations, the communication was apparently directed toward the parents of the subjects, even though it was presented only to the audience of young adolescents). Vulnerable nonusers (i.e., nonusers who would not definitely rule out future use) were more amenable to prevention communications attributed to slightly older peers. Unexpectedly, users were most favorably disposed to communications delivered by a young physician, perhaps because they were concerned about the physical consequences of their inhalant use. This research suggests that it is important to understand the motivations of the targeted group and to respond accordingly to enhance persuasion. It indicates that formative research must be carried out in advance of moving a prevention campaign to the field.

The Message (What and How is it said?). The dual-process *elaboration likelihood model* (ELM) of Petty and Cacioppo (1986) has been a mainstay of persuasion research for many years. A central assumption of the model is that for a message to attain the greatest effect, its receivers must be motivated to process it and possess the ability to do so. If both requirements are satisfied, the persuasive outcome of the process depends on the strength of the message. Message strength is a crucial factor in persuasion (Carpenter, 2015). However, the procedures that enhance message strength have not been articulated clearly in either social psychology or communication science. The EQUIP model was developed to remedy this shortcoming by specifying many of the critical factors implicated in developing strong communications. To be maximally effective, the content of a message should contain information the receiver wants or needs, and should be based on strong evidence. Message strength may reside in the eye of the beholder, but in general evidence-based arguments are more likely to persuade than appeals based on unsupported opinion.

Although the EQUIP's features have been discussed independently for purposes of clarity, they are highly interactive, and the interaction almost always involves features of the receiver (the "to

whom" in Lasswell's equation). This reflects our view that tailoring persuasive messages to the specific vulnerabilities of the individual, or targeting a communication to groups of individuals, all of whom possess similar traits (e.g., sexual orientation, age, political concerns) is the most productive prevention approach. The EQUIP is not an automatic formula for creating unerringly persuasive messages. Rather, it is a model that facilitates creation of persuasive communications by highlighting variables that years of research have indicated as critically important in the persuasion process. In most cases, these variables operate interactively, requiring consideration of all of the EQUIP's factors that control the form of the message.

How a message is conveyed by its source also is an important feature of Lasswell's "What/How" question. Information can be conveyed via a known or visible source, in which case the many factors affecting source credibility can be brought into play. The extremity of language the source uses to present information also is an important factor. Crano et al. (2017) showed that adults' unexpectedly moderate language regarding PSU avoidance was significantly more influential than more extreme, demanding language when dealing with adolescent participants. These differences in message receptivity as a function of language extremity were not evident in adolescents' responses to fellow adolescents. The extremity of language used by one's adolescent peers may not be a deciding feature in PSU prevention message acceptance, but when adult sources convey prevention appeals to adolescents, moderation matters.

The audience (To Whom is it said?). Targeting a persuasive communication to features of its audience has been a fixture in marketing for decades. To attain maximal effects, the communication must be relevant to its intended audience, thereby encouraging attention. The Engage element of the EQUIP recognizes the importance of securing and maintaining an audience's attention to the persuasive appeal. Tailoring operates at a more sophisticated and fine-grained level than targeting in matching audience and communication features (Noar, Benac, & Harris, 2007). Tailoring is a process by which message variations are used to take advantage of specific, varying features (needs, vul-

nerabilities, etc.) of each individual in the receiver audience (Lustria et al., 2013). The communicator matches features of the message and receiver that in theory will incline the receiver to accept the appeal. Tailored communications are designed to appeal individually to each audience member, thereby enhancing message relevance and impact.

The outcome (with What Effect?). The final component of Lasswell's formula is concerned with the outcome of the communication and persuasion process. Obviously, the test of campaign effectiveness requires a clear measurement aim. What is the goal of the prevention campaign? Among other possibilities, it may be to change attitudes toward a substance, to inform, arouse fear, prevent initiation, change norms, reduce use, or encourage cessation. All of these possible outcomes, and more, are legitimate and all could appropriately frame the focus of a prevention campaign. It is the campaign designer's job to specify its goals well in advance of program initiation, and to design the persuasive interventions to maximize desired outcomes.

A Note on the Special Case of Media-Based Preventive Communications

Mounting an effective persuasion campaign is considerably facilitated to the extent that a clearly delineated evidence-based model provides strategic guidance for the organization of specific persuasion tactics, as well as the evaluation of their efficacy and effectiveness. We believe that the EQUIP provides such guidance. As a middle-range model of persuasive message development, EQUIP circumvents the vagaries inherent in grand theories—especially for those seeking guidance for real-world development and implementation of PSU prevention campaigns.

The EQUIP provides systematic guidance whose purpose is to enhance message persuasiveness. It is useful in any communication context, from small-group persuasive interactions to mass media presentations. However, introducing *media* into the equation requires considerations over and above those involved in effective mes-

sage creation. Lazarsfeld argued that the mass media operated indirectly, its effects transmitted from authoritative media receivers to their *opinion followers*, whose interpretation, acceptance, or rejection of the media message was conditioned in part by the responses of the authoritative receiver (the *opinion leader*). According to Lazarsfeld, Berelson, and Gaudet (1944, p. 151), “Influences stemming from the mass media first reach ‘opinion leaders’ who, in turn, pass on what they [see] read and hear to those of their every-day associates for whom they are influential.” In the *two-step flow of communication model*, persuasive mass media operate through opinion leaders, the “go-betweens who filter the flow of information and influence to their intimate associates” (Katz, 1994, p. ix). The leader's interpretations, rationalizations, or dissent influences followers' responses to media communications. Neglect of two-step flow logic may be one of the reasons for the outcomes commonly judged as mass media prevention failures. Lazarsfeld's model implies that opinion leaders should be the principal targets of persuasive prevention communications, not the mass public, the ultimate target of most persuasive campaigns. Ignoring go-betweens may weaken the communicative impact of even well-constructed (i.e., EQUIP-based) prevention messages. Misidentifying the target, even to a small degree, inevitably reduces a media campaign's effectiveness. By implication, failing to construct persuasive messages to influence opinion leaders, and which instead target the mass public, cannot result in messages of maximal effect. Misspecification of the appropriate targets in a test of a persuasive PSU prevention communication inevitably leads to construction of messages that miss the mark.

Concluding Considerations

The EQUIP model of message development is a new approach to a long-standing question, namely, how can we develop persuasive communications of maximal effect. This issue assumes great importance in considerations of PSU prevention, given the enormous costs brought on by

the misuse of increasingly more powerful psychotropic substances that have become ever more available. PSU media prevention campaigns have a spotty record, at best. We have argued that this is a function, at least in part, of a failure to recognize that prevention fundamentally involves persuasion, and thus principles of persuasion must be invoked if we are to create successful preventive messages. This is a difficult road, but it need not be made even more difficult by ignoring the literature of more than a half-century's empirical research. The EQUIP is heavily dependent on this research, and promises to guide development of persuasive communications. EQUIP is a dynamic model that allows for the incorporation of new theory and research relevant to each of its five central features. Undoubtedly, new research may suggest better ways to move an audience, but the EQUIP seems a reasonable starting point.

By implication, the model highlights the kinds of messages that should *not* be a part of a persuasive PSU prevention communication or campaign. We believe that EQUIP provides one of the most promising methods to date of using the insights of some of the many fine theories of persuasion to facilitate PSU prevention. It specifies techniques that can serve as useful adjuncts to the grand theories whose general outlines orient the central goals of the research. Importantly, in so doing, the EQUIP moves the implications of persuasion theory into media applications. This model, and others to follow, hopefully, will allow us to realize the goal of PSU prevention, and will accelerate our efforts to communicate the positive features of substance avoidance and cessation persuasively.

References

- Abelson, R. P., Aronson, E., McGuire, W. J., Newcomb, T. M., Rosenberg, M. J., & Tannenbaum, P. (1968). *Theories of cognitive consistency: A sourcebook*. Chicago, IL: Rand-McNally.
- Ajzen, I. (1991). The theory of planned behavior. *Organizational Behavior and Human Decision Processes*, 50, 179–211.
- Ajzen, I., & Fishbein, M. (2005). The influence of attitudes on behavior. In D. Albarracín, B. T. Johnson, & M. P. Zanna (Eds.), *The handbook of attitudes* (pp. 173–221). Mahwah, NJ: Erlbaum.
- Bandura, A. (1974). Behavior theory and the models of man. *American Psychologist*, 29, 859–869.
- Barden, J., & Tormala, Z. L. (2014). Elaboration and attitude strength: The new meta-cognitive perspective. *Social and Personality Psychology Compass*, 8, 17–29.
- Briñol, P., Rucker, D. D., & Petty, R. E. (2015). Naïve theories about persuasion: Implications for information processing and consumer attitude change. *International Journal of Advertising: The Quarterly Review of Marketing Communications*, 34, 85–106.
- Burgoon, M., Dillard, J. P., & Doran, N. E. (1983). Friendly or unfriendly persuasion: The effects of violations of expectations by males and females. *Human Communication Research*, 10, 283–294.
- Carpenter, C. J. (2015). A meta-analysis of the ELM's argument quality \times processing type predictions. *Human Communication Research*, 41, 501–534.
- Crano, W. D. (1983). Assumed consensus of attitudes: The effect of vested interest. *Personality and Social Psychology Bulletin*, 9, 597–608.
- Crano, W. D. (1995). Attitude strength and vested interest. In R. E. Petty & J. A. Krosnick (Eds.), *Attitude strength: Antecedents and consequences. The Ohio State University series in attitudes and persuasion* (Vol. 4, pp. 131–157). Hillsdale, NJ: Erlbaum.
- Crano, W. D. (1997). Vested interest, symbolic politics, and attitude-behavior consistency. *Journal of Personality and Social Psychology*, 72, 485–491.
- Crano, W. D. (2000). Milestones in the psychological analysis of social influence. *Group Dynamics: Theory, Research, and Practice*, 4, 68–80.
- Crano, W. D. (2001). Directed social influence. In J. P. Forgas, K. D. Williams, & L. Wheeler (Eds.), *The social mind: Cognitive and motivational perspectives on social behaviour* (pp. 389–405). New York: Cambridge University Press.
- Crano, W. D. (2010). Applying established theories of persuasion to problems that matter: On becoming susceptible to our own knowledge. In J. P. Forgas, J. Cooper, & W. D. Crano (Eds.), *The psychology of attitudes and attitude change*. New York, NY: Psychology Press.
- Crano, W. D., Alvaro, E. M., Tan, C. N., & Siegel, J. T. (2017). Social mediation of persuasive media in adolescent substance prevention. *Psychology of Addictive Behaviors*, 31, 479–487.
- Crano, W. D., Gilbert, C., Alvaro, E. M., & Siegel, J. (2008). Enhancing prediction of inhalant abuse risk in samples of early adolescents: A secondary analysis. *Addictive Behaviors*, 33, 895–905.
- Crano, W. D., Gorenflo, D., & Shackelford, S. (1988). Overjustification, assumed consensus, and attitude change: Further investigation of the incentive-aroused ambivalence hypothesis. *Journal of Personality and Social Psychology*, 55, 12–22.
- Crano, W. D., & Lyrantzis, E. (2015). Structure and change of complex political attitudes. In J. P. Forgas, K. Fiedler, & W. D. Crano (Eds.), *Social psychology and politics* (pp. 21–39). New York, NY: Psychology Press.

- Crano, W. D., & Prislin, R. (1995). Components of vested interest and attitude-behavior consistency. *Basic and Applied Social Psychology*, 17, 1–21.
- Crano, W. D., & Prislin, R. (2006). Attitudes and persuasion. *Annual Review of Psychology*, 57, 345–374.
- Crano, W. D., Siegel, J. T., & Alvaro, E. M. (2012). The Siren's call: Mass media and drug prevention. In J. P. Dillard & L. Shen (Eds.), *The Sage handbook of persuasion: Developments in theory and practice* (2nd ed., pp. 296–313). Los Angeles, CA: Sage.
- Crano, W. D., Siegel, J. T., Alvaro, E. M., & Patel, N. M. (2007). Overcoming adolescents' resistance to anti-inhalant messages. *Psychology of Addictive Behaviors*, 21, 516–524.
- Crano, W. D., & Sivacek, J. (1984). The influence of incentive-aroused ambivalence on overjustification effects in attitude change. *Journal of Experimental Social Psychology*, 20, 137–158.
- De Dominicis, S., Crano, W. D., Ganucci Cancellieri, U., Mosco, B., Bonnes, M., Hohman, Z., & Bonaiuto, M. (2014). Vested interest and environmental risk communication: Improving willingness to cope with impending disasters. *Journal of Applied Social Psychology*, 44, 364–374.
- Deci, E. L., & Ryan, R. M. (2002). *Handbook of self-determination research*. Rochester, NY: University of Rochester Press.
- Deci, E. L., & Ryan, R. M. (2010). *Self-determination*. New York, NY: John Wiley & Sons.
- Derzon, J. H., & Lipsey, M. W. (2002). A meta-analysis of the effectiveness of mass-communication for changing substance-use knowledge, attitudes, and behavior. In W. D. Crano & M. Burgoon (Eds.), *Mass media and drug prevention: Classic and contemporary theories and research* (pp. 231–258). Mahwah, NJ: Erlbaum.
- DiClemente, C. C., & Prochaska, J. O. (1982). Self-change and therapy change of smoking behavior: A comparison of processes of change in cessation and maintenance. *Addictive Behaviors*, 7, 133–142.
- Donaldson, C., Siegel, J. T., & Crano, W. D. (2016). Predicting and preventing prescription stimulant misuse: Attitudes, intentions, and vested interest theory. *Addictive Behaviors*, 53, 101–107.
- Donaldson, S. I. (2002). High-potential mediators of drug-abuse prevention program effects. In W. D. Crano & M. Burgoon (Eds.), *Mass media and drug prevention: Classic and contemporary theories and research* (pp. 215–230). Mahwah, NJ: Erlbaum.
- European Monitoring Center for Drugs and Drug Addiction. (n.d.). *Perspectives on drugs: Mass media campaigns for the prevention of drug use in young people*. Retrieved July 4, 2016, from http://www.emcdda.europa.eu/attachements.cfm/att_212357_EN-EMCDDA-POD_2013_Mass%20media%20campaigns.pdf.
- Fabrigar, L. R., Petty, R. E., Smith, S. M., & Crites, S. L., Jr. (2006). Understanding knowledge effects on attitude-behavior consistency: The role of relevance, complexity, and amount of knowledge. *Journal of Personality and Social Psychology*, 90, 556–577.
- Fabrigar, L. R., Wegener, D. T., & MacDonald, T. K. (2010). Distinguishing between prediction and influence: Multiple processes underlying attitude-behavior consistency. In: C. R. Agnew, D. E. Carlston, W. G. Graziano, J. R. Kelly, (Eds.), *Then a Miracle Occurs: Focusing on Behavior in Social Psychological Theory and Research* (pp. 162–185). New York, NY: Oxford University Press.
- Festinger, L. (1957). *A theory of cognitive dissonance*. Stanford, CA: Stanford University Press.
- Gilbert, D. T. (1991). How mental systems believe. *American Psychologist*, 46, 107–119.
- Grice, H. P. (1975). Logic and conversation. In P. Cole, & J. I. Morgan, (Eds.), *Syntax and Semantics, 3: Speech Acts* (pp. 41–58). New York, NY: Academic Press.
- Grice, H. P. (1978). Further notes on logic and conversation. In J. E. Adler, & L. J. Rips, (Eds.), *Reasoning: Studies of human inference and its foundations* (pp. 765–773). New York, NY: Cambridge University Press.
- Groenendyk, E. W., & Valentino, N. A. (2002). Of dark clouds and silver linings: Exposure to issue over issue candidate advertising on persuasion, information retention, and issue salience. *Communication Research*, 29, 295–319.
- Gruder, C. L., Cook, T. D., Hennigan, K. M., Flay, B. R., Alessis, C., & Halamaj, J. (1978). Empirical tests of the absolute sleeper effect predicted from the discounting cue hypothesis. *Journal of Personality and Social Psychology*, 36, 1061–1074.
- Halpern-Felsher, B. L., Biehl, M. A., Kropp, R. Y., & Rubinstein, M. L. (2004). Perceived risks and benefits of smoking: Differences among adolescents with different expectancies and intentions. *Preventive Medicine*, 39, 559–567.
- Head, K. J., Noar, S. M., Iannarino, N. T., & Harrington, N. G. (2013). Efficacy of text messaging-based interventions for health promotion: A meta-analysis. *Social Science & Medicine*, 97, 41.
- Hornik, R., Jacobsohn, L., Orwin, R., Piesse, A., & Kalton, G. (2008). Effects of the National Youth Anti-Drug Media Campaign on Youth. *American Journal of Public Health*, 98, 2229–2236.
- Hovland, C. I., Janis, I. L., & Kelley, H. H. (1953). *Communication and persuasion*. New Haven, CT: Yale University Press.
- Johnson, I. M., Siegel, J. T., & Crano, W. D. (2014). Expanding the reach of vested interest in predicting attitude-consistent behavior. *Social Influence*, 9, 20–36.
- Katz, E. (1994). Foreword, in G. Weimann, *The influentials: People who influence people* (p. ix). Albany, NY: State University of New York Press.
- Koeske, G., & Crano, W. D. (1968). The effect of congruous and incongruous source-statement combinations on the judged credibility of a communication. *Journal of Experimental Social Psychology*, 4, 384–399.
- Lasswell, H. D. (1948). The structure and function of communication in society. In L. Bryson (Ed.), *The communication of ideas: A series of addresses*

- (pp. 37–51). New York, NY: Institute for Religious and Social Studies.
- Lasswell, H. D. (1951). *The political writings of Harold Lasswell. Psychopathology and politics. Politics: Who says what, how. Democratic character*. New York, NY: Free Press.
- Lasswell, H. D., & Leites, N. (1949). *Language of politics; studies in quantitative semantics*. New York: G.W. Stewart.
- Lazarsfeld, P. F., Berelson, B., & Gaudet, H. (1944). *The people's choice*. Oxford, England: Duell, Sloan & Pearce.
- Lehman, B., & Crano, W. D. (2002). The pervasive effects of vested interest on attitude-criterion consistency in political judgment. *Journal of Experimental Social Psychology*, 38, 101–112.
- Lilienfeld, S. O., & Arkowitz, H. (2014). Why “Just say no” doesn’t work. *Scientific American*. Retrieved from <http://www.scientificamerican.com/article/why-just-say-no-doesnt-work/>
- Lustria, M. L. A., Noar, S. M., Cortese, J., Van Stee, S. K., Glueckauf, R. L., & Lee, J. (2013). A meta-analysis of web-delivered tailored health behavior change interventions. *Journal of Health Communication*, 18, 1039–1069.
- Maddux, J. E., & Rogers, R. W. (1983). Protection motivation and self-efficacy: A revised theory of fear appeals and attitude change. *Journal of Experimental Social Psychology*, 19, 469–479.
- Martens, M., Page, J., Mowry, E., Damann, K., Taylor, K., & Cimini, M. (2006). Differences between actual and perceived student norms: An examination of alcohol use, drug use, and sexual behavior. *Journal of American College Health*, 54, 295–300.
- McGuire, W. J. (1985). Attitudes and attitude change. In G. Lindzey & E. Aronson (Eds.), *Handbook of social psychology* (Volume II: Special fields and applications) (3rd ed.). New York, NY: Random House.
- McLuhan, M. (1964). *Understanding media: The extensions of man*. New York, NY: Mentor.
- Merton, R. K. (1991). *Introduction to sociology*. New York, NY: Harcourt Brace Jovonovich.
- Merton, R. K. (1994). A life of learning. C.S. Haskins Lecture, American Council of Learned Societies. Retrieved July 11, 2016, from <http://www.csudh.edu/dearhabermas/merton01.htm>
- Mills, C. W. (1959). *The sociological imagination*. Oxford, GB: Oxford University Press.
- Noar, S. M., Benac, C. N., & Harris, M. S. (2007). Does tailoring matter? Meta-analytic review of tailored print health behavior change interventions. *Psychological Bulletin*, 133, 673–693.
- Ophir, Y., Brennan, E., Maloney, E., & Cappella, J. N. (2017). The effects of graphic warning labels’ vividness on message engagement and intentions to quit smoking. *Communication Research*. <https://doi.org/10.1177/0093650217700226>
- Parsons, T. (1937/1968). *The structure of social actions*. Glencoe, IL: Free Press.
- Perkins, H. W., & Berkowitz, A. D. (1986). Perceiving the community norms of alcohol use among students: Some research implications for campus alcohol education programming. *International Journal of the Addictions*, 21, 961–976.
- Petty, R. E., & Cacioppo, J. T. (1986). *Communication and persuasion*. New York, NY: Springer.
- Petty, R. E., Wegener, D. T., & Fabrigar, L. T. (1999). The elaboration likelihood model: Current status and controversies. *Annual Review of Psychology*, 48, 609–647.
- Prislin, R. (1988). Attitude-behaviour relationship: Attitude salience and implications of behaviour. *Psychologische Beiträge*, 30, 129–138.
- Rosenstock, I. M. (1974). Historical origins of the health belief model. *Health Education & Behavior*, 2, 328–335.
- Siegel, J. T., Alvaro, E., Lac, A., Crano, W. D., & Alexander, S. (2008). Intentions of becoming a living organ donor among Hispanics: A theoretical approach exploring differences between living and non-living organ donation. *Journal of Health Communication*, 13, 80–99.
- Siegel, J. T., Alvaro, E. M., Crano, W. D., Skendarian, J., Lac, A., & Patel, N. (2008). Influencing inhalant intentions by changing socio-personal expectations. *Prevention Science*, 9, 153–165.
- Siegel, J. T., & Burgoon, J. K. (2002). Expectancy theory approaches to prevention: Violating adolescent expectations to increase the effectiveness of public service announcements. In W. D. Crano & M. Burgoon (Eds.), *Mass media and drug prevention: Classic and contemporary theories and research* (pp. 163–186). Mahwah, NJ: Erlbaum.
- Smith, C. T., & De Houwer, J. (2014). The impact of persuasive messages on IAT performance is moderated by source attractiveness and likeability. *Social Psychology*, 45, 437–448.
- Smith, C. T., De Houwer, J., & Nosek, B. A. (2013). Consider the source: Persuasion of implicit evaluations is moderated by source credibility. *Personality and Social Psychology Bulletin*, 39, 193–205.
- Snyder, L. B., & Hamilton, M. A. (2002). A meta-analysis of U.S. health campaign effects on behavior: Emphasize enforcement, exposure, and new information, and beware the secular trend. In R. C. Hornik (Ed.), *Public health communication: Evidence for behavior change* (pp. 357–383). Mahwah, NJ: Erlbaum.
- Tormala, Z. L., & Petty, R. E. (2004). Resisting persuasion and attitude certainty: A meta-cognitive analysis. In E. S. Knowles & J. A. Linn (Eds.), *Resistance and persuasion* (pp. 65–82). Mahwah, NJ: Erlbaum.
- United Nations Office on Drugs and Crime. (2015). *International standards on drug use prevention*. Retrieved July 8, 2016, from www.unodc.org/unodc/en/prevention/prevention-standards.html
- Wyer, R. S., & Shrum, L. J. (2015). The role of comprehension processes in communication and persuasion. *Media Psychology*, 18, 163–195.
- Ziegler, R., & Diehl, M. (2003). Is politician A or politician B more persuasive? Recipients’ source preference and the direction of biased message processing. *European Journal of Social Psychology*, 33(5), 623–637.



**Using an Evidence-based Approach to Judge the Likely Effectiveness of Prevention
Campaign Appeals: A Preliminary Methodology for Judgment**

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These notes are meant to provide an introduction to the science involved in developing persuasive communications. They are specifically designed to help inform your judgment about the likely success of a persuasive appeal or a campaign consisting of many such communications. Pages 2 and 3 of this brief document provides some basic considerations when creating persuasive appeals or judging their effectiveness. Pages 4 - 6 are designed to help you estimate the likely persuasiveness of a communication, and to highlight features of a communication that should be improved. It is important to read the introductory pages before jumping to the score sheet. On pages 7 and 8, I lay out some ideas for the campaign designer that he or she should consider when thinking about a media-based prevention campaign. On pages 9 -12, I present some preliminary campaign factors that should be considered when considering campaign development. The material presented here is not comprehensive, but it is designed to present a reasonable set of ideas for consideration when developing a campaign or judging its likely success.

Guidelines for Evaluating or Creating Persuasive Media-based Appeals

H. Lasswell. Creating or judging persuasive communications is at least as much an art as a science. To succeed, you need considerable training in theories of persuasion, mass communication, and social psychology, and even then, you will not always produce the desired outcomes. We need to short circuit this process. To do this, I will appeal to three important models that will help guide your efforts. These involve Harold Lasswell's famous dictum, that to create effective communications you must think seriously about "Who says What to Whom, How, and with what Effect." This model requires you to make an informed judgment about the source of a persuasive appeal (Who), the source's message (What), the communication target (Whom), the structure of the message and its medium of delivery (How), and finally, to evaluate the fruits of your efforts (Effect). OK, so how do we make this more concrete?

First, choose a message source that your audience finds credible. That means, your audience acknowledges that the source (Who) knows what he or she is talking about, and has nothing to gain by your compliance. We'll deal with the What (is said – the structure of the message) soon.

The Whom refers to your audience. Whom do you want to influence, and what do you want them to do? Be specific. If you want to target adolescents, the source of your appeal (the Who) will probably be different from one you would choose to target adults. Each of these factors affects the others. Also, don't warn teens about substances that teens don't use, or threaten them with loss of jobs they could not possibly have. Focus on the specific drug you wish to control. Sure, you might want to drive down use of all illicit substances, but you will be more successful if you target a specific substance or related substances.

What delivery method will you use (How)? If you deliver your message on a medium that the bulk of your intended audience does not use, why bother? Your message won't persuade anyone if it goes unseen. If adults are mainly attuned to TV, and adults are your target, then use TV, not Facebook or Instagram. If adolescents are your target, a different medium may be indicated – and you should know this in advance of going into the field.

How will you gauge success (Effect)? Have a plan to evaluate the work you've done (see Worksheet B).

P. Lazarsfeld. Mass media operate differently from face-to-face interaction. Paul Lazarsfeld asserted that success media affected "opinion leaders," whose evaluation of media messages was adopted by their followers. Successful media campaigns persuade these opinion leaders (Lasswell's Who), who in turn influence their followers (Whom). We all follow opinion leaders at some times, and these leaders differ as a function of the influence topic. We might listen to a famous formula 1 driver or a noted environmentalist when deciding on a fast or economical car. We might listen to a noted authority on addiction when judging the safety of a new drug that has

caught your attention. Two-step flow considerations become useful if we know whom our audience is, who they respect/listen to, and the media they use.

The EQUIP MODEL. Knowing how to construct an appeal that persuades your carefully chosen audience about your carefully chosen psychoactive substance is the key to making the most of Lasswell's and Lazarsfeld's insights. The EQUIP model, developed by William Crano and his colleagues, is an acronym that outlines the factors that must be included if your appeal is to maximize its persuasive potential. In a nutshell, the EQUIP alerts the message developer to the central factors that should be considered when developing a persuasive communication.

Engage: if nobody notices or attends to your persuasive appeal, it cannot succeed. To be effective, it must grab the audience's attention and keep it. Many remember the "This is your brain on drugs" ad, even though it appeared years ago, in 1987. The ad was a powerfully engaging, but as you will see, it lacked all of the other factors that prompt persuasion.

Question: Considerable research indicates that to persuade, your message must raise a question in the receiver's mind (e.g., "Are you certain marijuana is not harmful to the developing brain?") This model factor is meant only to raise question, it need do nothing more, because raising the question begins to weaken the receiver's assumption that "everyone I care about thinks as I do."

Undermine: Having weakened the target's assumption that all believe as he or she does, the next step in the persuasion process is to undermine the belief with appeals that argue the established belief is incorrect, not normally held by one's significant others (or opinion leaders), and ought to be changed. The next phase of the model delivers the evidence for your argument.

Inform. In this phase, we deliver information from credible sources that argue your (anti-drug) position. It is important that the information be correct, to the point, verifiable, based on strong evidence, and not exaggerated. Highly emotional or fear-arousing messages should be avoided. They alienate users, and are not particularly effective with non-users who might find the appeal incredible or exaggerated. Do not allow receivers to ignore or trivialize or play down the message. Ensure it is powerful enough that it must be taken seriously, and not easily ignored.

Persuade: The final phase of the EQUIP involves actions that "sell" the persuasive message. It draws attention to the reasons why the message should be accepted, and how it might improve the audience member's life. It should provide information that will help the individual follow the advice (e.g., quit lines, URLs that provide more information, etc.) along with a brand that is included on all the messages that are a part of the prevention campaign. This helps to build on appeals that appeared earlier in the campaign, and can build on prior effects.

CHECKLIST FOR PLANNING A PERSUASIVE MASS MEDIA-BASED SUBSTANCE USE PREVENTION COMMUNICATION

These questions are designed to help you form a clear impression of the persuasive potential of a media-based communication. Your task is to consider a persuasive communication. Form an impression of the communication and rate it on the questions you find on this list.

This checklist is useful for judging others' persuasive communications, or in helping you develop a better (i.e., more persuasive) communication. You must answer all questions. Reflect on your training in the Media track to inform your scores.

The scoring key is as follows.

SD = Strongly Disagree

DA = Disagree

N = Neutral

A = Agree

SA = Strongly Agree

Please begin. Circle your answer to each question.

The media-based substance use prevention communication...

- | | |
|---|--------------|
| 1. Will capture the attention of (engage) the intended audience. | SD DA N A SA |
| 2. Will cause receivers to question pro-substance attitudes. | SD DA N A SA |
| 3. Indicates that substance use is not normative | SD DA N A SA |
| 4. Specifically targets resolute or vulnerable nonusers, or users. | SD DA N A SA |
| 5. Provides useful information to avoid substance use | SD DA N A SA |
| 6. Is persuasive. | SD DA N A SA |
| 7. Will appeal to opinion leaders. | SD DA N A SA |
| 8. Will inspire opinion leaders to discuss it with their followers. | SD DA N A SA |
| 9. Was influenced by the two-step flow theory. | SD DA N A SA |
| 10. Will encourage discussion in the mass audience. | SD DA N A SA |
| 11. Is attributed to a source with established credentials. | SD DA N A SA |
| 12. Used a source that can be trusted. | SD DA N A SA |
| 13. Uses moderate, rather than extreme language or claims. | SD DA N A SA |
| 14. Is not designed to scare message receivers. | SD DA N A SA |

- | | |
|--|--------------|
| 15. Is understandable. | SD DA N A SA |
| 16. Uses language typically used by the intended audience. | SD DA N A SA |
| 17. Is designed with a specific audience in mind. | SD DA N A SA |
| 18. Is appropriate for the intended audience | SD DA N A SA |
| 19. Uses a medium that will reach the intended audience. | SD DA N A SA |
| 20. Is designed to overcome audience resistance. | SD DA N A SA |

Please turn to the next page for scoring instructions

Please assign scores either individually (useful when you are working on your own) or a group score (that is, the score on which the members of your group consensually agree).

- I. Scoring based on EQUIP MODEL considerations [Items 1 through 6]. Please answer the following:

Item #	Number of SDs	Number of DAs	Number of Ns	Number of As	Number of SAs
1 – 6					
Multiply by	1	2	3	4	5
Result					
Total Score (sum of all the Results columns) =					

- II. Scoring based on Two-step Flow Model considerations [Items 7 through 10]. Please answer the following:

Item #	Number of SDs	Number of DAs	Number of Ns	Number of As	Number of SAs
7-10					
Multiply by	1	2	3	4	5
Result					
Total Score (sum of all the Results columns) =					

- III. Scoring based on “WHO says WHAT to WHOM” considerations [Items 11 through 20]. Please answer the following:

Item #	Number of SDs	Number of DAs	Number of Ns	Number of As	Number of SAs
11-20					
Multiply by	1	2	3	4	5
Result					
Total Score (sum of all the Results columns) =					

When developing your persuasive communication, the ideal is to generate as high a score as possible. Communications that achieve high scores are more consistent with evidence-based theories of persuasion, and are thus more likely to succeed in persuading audiences.

Communications that score low in a specific results table will inform you that something should be done to correct the deficiency. Or, you might find a communication scoring highly on all items except one within a specific scoring system. That will alert you to the need to modify the communication to offset the problem.

Generally speaking, it is good to consider each communication’s scores on each of the three scoring systems. Each system represents a different theory, which focuses on different persuasive features. They are all important, and you should try to ensure that your efforts satisfy all of them.

Worksheet A: Campaign Considerations

Use these questions to guide your campaign development. Does your plan answer these questions?

Core elements of effective campaigns:

1. Did the campaign use a theory of attitude or behavior change?
 - *Successful campaigns are built on empirically established theories of attitude or behavior change.*
2. Did the message use a theory of message construction?
 - *Successful campaigns are built on empirically established theories of message construction.*
3. Did the message target a specific subpopulation?
 - *The same persuasive strategy cannot be used to change attitudes and behaviors of a diverse group.*
4. Did the message target a specific user status or take user status into consideration?
 - *Reactions to anti-drug messages change based on whether the viewers are current users, vulnerable nonusers, or resolute nonusers?*
5. Was the target audience sufficiently exposed to the campaign?
 - *Campaigns cannot affect people who are not exposed to them.*
6. Did the message address resistance to persuasion?
 - *This can be accomplished in several ways, including enhancing feelings of autonomy, tying the undesirable(substance use) behavior to a loss of control, indirectly addressing the receiver, and using arguments that cannot be rebutted easily.*
7. Did the message consider culture?
 - *See "Cultural Assessment Questionnaire" worksheet*

Additional considerations:

8. Did the message use factual information?

- *Information communicated should be true, not be easy to contradict or deny.*
9. Did the message avoid using fear appeals or extreme approaches?
 - *Those who use or intend to use substances will avoid or resist the message if it is too difficult to watch, read, or listen to.*
 10. Did the message avoid exaggerating the consequences of substance use?
 - *Emphasizing consequences that are proven untrue by simple life experiences is a recipe for disaster.*
 11. Did the message avoid using controlling language? “You must...” “It is mandatory...” “People who act that way are stupid (idiots, deranged, etc.)”
 - *This sort of language almost always is resisted, especially by youth who strive for independence..*
 12. If the ad targets adolescents, did the ad consider social outcomes?
 - *Social outcomes are particularly important to most adolescents. Many do not seem particularly worried about severe physical dangers that might occur long in the future. Less severe outcomes that are more immediate seem to be more effective.*
 13. Did it connect with other existing substance use prevention programs in the home, school, and community?
 - *Connected campaigns are more effective.*

WORKSHEET B – PRELIMINARY CAMPAIGN PLANNING

Please think about the following:

1. What geographic region do you cover? Determined by your organization? Sponsor? State?

2. What target audience(s) do you wish to address? Choose from the following:

Young children: usually involves reinforcing abstinence	Young adolescents: this is when most substance use begins)	Young adult and adult population: often, different substances are used for different purposes – amphetamines to enhance energy/lose weight vs. substances to “get high”)
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Target audience_____

3. What substance(s) will be your main focus? _____

- a. Why?

-
-
- b. Have you established the need to deal with this substance through preliminary study, or is the problem so well-identified that you feel this is not necessary

4. Support

Budget	Backing Organizations	Vested interest against prevention
\$\$ Personnel needed Trained media developers?	Who is the sponsor?	Does sponsor have a vested interest in substance use? (e.g., alcohol distributors or producers, etc.)

5. Medium you plan to use and why?

Core elements of effective campaigns:

14. Did the campaign use a theory of attitude or behavior change?
- *Successful campaigns are built on empirically established theories of attitude or behavior change.*

15. Did the message use a theory of message construction?
 - *Successful campaigns are built on empirically established theories of message construction.*
16. Did the message target a specific subpopulation?
 - *The same persuasive strategy cannot be used to change attitudes and behaviors of a diverse group.*
17. Did the message target a specific user status or take user status into consideration?
 - *Reactions to anti-drug messages change based on whether the viewers are current users, vulnerable nonusers, or resolute nonusers?*
18. Was the target audience sufficiently exposed to the campaign?
 - *Campaigns cannot affect people who are not exposed to them.*
19. Did the message address resistance to persuasion?
 - *This can be accomplished in several ways, including enhancing feelings of autonomy, tying the undesirable (substance use) behavior to a loss of control, indirectly addressing the receiver, and using arguments that cannot be rebutted easily.*
20. Did the message consider culture?
 - *See "Cultural Assessment Questionnaire" worksheet*

Additional considerations:

21. Did the message use factual information?
 - *Information communicated should be true, not be easy to contradict or deny.*
22. Did the message avoid using fear appeals or extreme approaches?
 - *Those who use or intend to use substances will avoid or resist the message if it is too difficult to watch, read, or listen to.*
23. Did the message avoid exaggerating the consequences of substance use?
 - *Emphasizing consequences that are proven untrue by simple life experiences is a recipe for disaster.*
24. Did the message avoid using controlling language? "You must..." "It is mandatory..." "People who act that way are stupid (idiots, deranged, etc.)"
 - *This sort of language almost always is resisted, especially by youth who strive for independence..*
25. If the ad targets adolescents, did the ad consider social outcomes?

- *Social outcomes are particularly important to most adolescents. Many do not seem particularly worried about severe physical dangers that might occur long in the future. Less severe outcomes that are more immediate seem to be more effective.*

26. Did it connect with other existing substance use prevention programs in the home, school, and community?

- *Connected campaigns are more effective.*

References

Crano, W.D., Alvaro, E.M., & Siegel, J.T. (in press). Creating persuasive substance use prevention messages: The EQUIP Model. In Z. Sloboda, H. Petras, R.W. Hingson, & E.B. Robertson (Eds.), *Prevention of substance use*, New York, NY: Springer.

Crano, W.D., Siegel, J.T., & Alvaro, E.M. (2013). The siren's call: Mass media and drug prevention. *The persuasion handbook*. Thousand Oaks, CA: Sage.

Lasswell, Harold (1948). Bryson, L., ed. *The structure and function of communication in society. The communication of ideas* (pp. 117ff). New York, NY: Institute for Religious and Social Studies.

Lazarsfeld, P.F., Berelson, B. & Gaudet, H. (1944). *The people's choice: How the voter makes up his mind in a presidential campaign*. New York, NY: Columbia University Press.

Additional Substance Use Prevention Messaging Strategies

Web Resources

Organization	Resources
Substance Abuse & Mental Health Services Administration (SAMHSA)	<p>“Focus on Prevention: Connecting with Your Audience”</p> <ul style="list-style-type: none">- https://store.samhsa.gov/product/Focus-on-Prevention/sma10-4120?referer=from_search_result <p>“Talk. They Hear You.”</p> <ul style="list-style-type: none">- https://www.samhsa.gov/talk-they-hear-you <p>“Using Fear Messages and Scare Tactics in Substance Abuse Prevention Efforts”</p> <ul style="list-style-type: none">- https://www.riprc.org/wp-content/uploads/2018/04/fear-messages-prevention-efforts.pdf