Synthesis across Multiple, Long-Term Outcomes of Prevention Interventions Delivered Early In Life among Lesbian, Gay, Bisexual and Transgendered Youth

Organizers: Richard A. Jenkins, PhD, National Institute on Drug Abuse and Eve E. Reider, PhD, National Institute on Drug Abuse

Moderators: George W. Howe, PhD, George Washington University and Ronald D. Stall, PhD, MPH, University of Pittsburgh

Presenters: Judith B. Bradford, PhD, The Fenway Institute, C. Hendricks Brown, PhD, University of Miami, Tatiana Perrino, PhD, University of Miami, Mark Hatzenbuehler, Columbia University, David Mackinnon, PhD, Arizona State University, Brian Mustanski, PhD, Northwestern University, Elizabeth B. Robertson, PhD, National Institute on Drug Abuse

Purpose of the Workshop:

According to a recent IOM report there is a paucity of research and information on the health of lesbian, gay, bisexual and transgendered (LGBT) youth. LGBT youth are considered at increased risk for comorbid drug abuse, including smoking, mental health problems, and health-risking sexual behaviors (HRSB) related to HIV/AIDS. There also is increased representation of LGBT youth among the homeless and in the juvenile justice system. Despite rapid social change, LGBT youth continue to be subject to bullying, discrimination, and problems with parental acceptance, which may contribute to these problem areas. These comorbidities may be linked and synergistic. Stall et al. (2003) described that additive psychosocial health problems, otherwise known collectively as a syndemic, exist among urban MSM and that the interconnections of these problems, function to magnify the effects of the HIV/AIDS epidemic in this population. Protective and ameliorative factors for these youth are less well documented or studied which makes it important to understand how multiple etiologies and outcomes are linked and whether existing preventive interventions have an impact.

A body of findings is accumulating from NIDA’s drug abuse prevention portfolio showing long-term effects of prevention interventions delivered early in life into adolescence and young adulthood on a broad array of risky (e.g., substance use, delinquency, violence) and protective behaviors (e.g., academic achievement), including behaviors not targeted in the interventions, such as HRSB related to HIV/AIDS (e.g., Griffin, Botvin, & Nichols, 2006; Ellickson,
McCaffrey, & Klein, 2009; Lonczak, Abbott, Hawkins, et al., 2002). In addition, these prevention interventions generally have been found to have their greatest effects on participants at highest risk (e.g., Spoth, Redmond, Clair, Chungyeol, Greenberg, & Feinberg, 2011; Brody, Beach, Philibert, Chen, & Murry, 2009; Kellam et al., 2008). Secondary analysis of existing epidemiological cohorts of youth suggest that LGBT youth are affected by many of the same risk and protective factors as other youth (e.g., Marshal et al., 2008) while other research suggest that additional variables may be of additional importance for LGBT youth (e.g., Hatzenbuehler et al., 2012). Therefore, it is conceivable that prevention interventions delivered early in life may have effects in adolescence and young adulthood on substance use, mental health and HRSB of LGBT persons. However, individual extant NIDA-funded prevention intervention studies with long-term outcomes do not have sufficient numbers of LGBT youth in their data sets to conduct study-specific analyses. Data sets would need to be harmonized across prevention intervention studies with long-term outcomes to determine intervention effects on those identifying as LGBT in adolescence and young adulthood and additional measures focused on LGBT status and HRSB related to HIV/AIDS may need to be added to ongoing studies.

The purpose of this workshop is: 1) to review major findings and research gaps from the IOM report on LGBT health; 2) to review our understanding of the normative development of LGBT youth, 3) to examine outcomes relevant to LGBT youth from prevention intervention studies that are implemented in childhood and followed into adolescence and young adulthood; 4) to discuss the feasibility of synthesizing data sets across prevention intervention studies with outcomes in adolescence and young adulthood to examine drug use and abuse, HRSB related to HIV/AIDS and other important mental, emotional and behavioral (MEB) outcomes for LGBT youth, 5) to determine methodologic steps necessary to accomplish synthesis of data sets and analysis of data with considerations related to small or selected samples, harmonization of measures, and 6) to discuss and problem solve potential barriers including sharing of research data. In addition to traditional outcomes and risk factors of importance to youth, consideration will be given to variables that may be particularly important to LGBT youth such as indicators of social discrimination, internalized homophobia, and the social and legal environment (e.g., Hatzenbuehler et al., 2012), as well as developmental considerations such as exposure to sexual abuse and development of long-term intimate relationships. Beyond the specific issues relevant to LGBT youth, this workshop may be helpful in illustrating issues that need to be considered in evaluating the effects of early intervention on persons drawn from potentially important, but relatively small populations. These may include racial/ethnic groups (e.g., Asian-Americans, Latinos, or African-Americans) or subgroups (e.g., specific ethnicities within a racial or ethnic category or considerations such as immigration status or assimilation/acculturation).

Learning objectives:

- To better understand LGBT health and development;
• To become familiar with long-term outcomes of drug abuse prevention interventions delivered early in life;
• To understand feasibility of, steps involved in and potential barriers to synthesizing data and harmonizing measures across prevention studies.
  o Learn to determine likely studies and outcomes for inclusion
  o Learn steps needed for harmonization based on prior efforts at aggregation
• Identify additional data collection that may strengthen the findings
• Identify potential collaborative partnerships to implement analyses
• Learn about funding mechanisms for submitting grant applications on data harmonization.

Target workshop audience

Prevention scientists, practitioners, federal employees and policy makers interested in the health and development of LGBT youth and the harmonization of prevention intervention data sets to examine long-term impact of interventions on the health of LGBT youth.

Materials provided to attendees:

• Handouts of PowerPoint presentation
• A list of prevention intervention studies that have outcomes in adolescence and young adulthood that could potentially be used for data harmonization and outcomes of relevance to examine for LGBT youth.

Workshop Outline

8:30 – 8:45 a.m. Introduction of Workshop, Organizers, and Discussants
Organizers: Richard Jenkins and Eve Reider

• Statement of the issue: The need for more data on the development of LGBT youth & need to examine the impact of prevention interventions delivered early in life on the health of LGBT youth in adolescence and young adulthood, including drug use, mental health, and health risking sexual behaviors (HRSB) related to HIV/AIDS.
• LGBT youth as a disparities population; ethnic/racial minority youth as having dual disparities and additional substantive and methodologic/statistical considerations.
• Lack of data; We need to augment efforts to increase investigation in the field
• Particular issues for LGBT youth—are intervention effects attenuated by experience of bullying, homophobia, anti-gay family/school/community environment
• How can further the development methods for addressing outcomes in intervention studies among small, selected populations and low base rate issues to better address health disparities, vulnerability, and strengths?

8:45 – 9:15 a.m. Review of Institute of Medicine Report on LGBT Health
Presenter: Judy Bradford
• Major findings: Areas of disparities, unanswered questions
• Research gaps: Recommendations for next steps

9:15 - 9:30 a.m. Discussion: Ron Stall

9:30 – 10:00 a.m. Development of LGBT Youth and Related Epidemiology
Presenter: Brian Mustanski

• Development of LGBT youth: What do we know about gay youth, developmental issues
  of particular importance (e.g., coming out)
• Epidemiology: secondary analyses of large data sets, e.g., YRBS, Add Health

10:00 – 10:15 a.m. Discussion: Mark Hatzenbuehler

10:15 – 10:30 a.m. Break

10:30- 11:15 a.m.; Long-Term Outcomes of Prevention Interventions Delivered Early in Life
Presenter: Elizabeth B. Robertson

• Broad principals of action—commonalities and variations by modality, population, and
targets
• Common areas of inquiry—behaviors, environmental variables, dissemination/implementa
tion considerations
• Outcomes—implications for minority status, sexual behavior, areas of disparity apparent
for LGBT youth and young adults

11:15 - 11:30 a.m. Discussion: George Howe and Ron Stall

11:30 a.m.–12:00 p.m. Methods for Synthesizing Findings across Randomized Trials:
Opportunities and Challenges
Presenter: Hendricks Brown

• What are the technical challenges in synthesizing findings across randomized trials at the
individual level?
• How can we best handle differences in populations, interventions, and trial designs, as
well as limitations of dealing with small sample sizes?

12:00 – 12:15 p.m. Issues in Sharing Data across Multiple Trials
Presenter: Tatiana Perrino

• How can we overcome practical issues in implementing NIH policies on data sharing?
• How best to facilitate researchers’ permission to use datasets and their collaboration on
synthesis projects?
- What are the major human subjects issues and how best to address them with multi-institutional IRB review?
- How best to merge datasets so that data can be synthesized using integrative data analysis techniques?

12:15 – 1:15 p.m. Lunch

1:15 – 1:45 p.m. Harmonization of Measures in Synthesis Projects
Presenter: George Howe

- We anticipate that across multiple trials there will be different ways that sexual orientation, sexual behavior, and outcomes will be measured.
- How can the analytic challenges of these and other differently measured variables be addressed in the harmonization of measures?
- What can be learned from other harmonization projects?

1:45 – 2:15 p.m. Subgroup, Mediation and Moderation Analysis in Synthesis Projects
Presenter: David MacKinnon

- A major question addressed by this symposium is whether there are sufficient data available across studies to conduct meaningful analyses of the long-term outcomes of preventive interventions on LGBT youth.
- Which criteria can help determine which studies are appropriate to be part of a synthesis from the perspective of adequate evaluations of outcome, heterogeneity of impact and influential processes such as moderation and mediation?
- What are the issues related to small and selected subsamples that need to be considered in comparing outcomes across subgroups and studies, and to examine mediation?

2:15 – 5:00 p.m. Synthesizing Prevention Intervention Data Sets to Examine Impact on LGBT Youth: Integrative Discussion
Discussion Leader: Rich Jenkins

- Overall issues: What outcomes are important? What are the most feasible to examine?
- What are the sample size considerations & how well do available studies address them?
- What design considerations need to be considered in the context of existing studies and efforts to add new variables?
- How best to deal with complexities such as evaluating determinants, mediation, moderation, and trajectories?
- What variables of particular importance for LGBT youth should be added for any new data collection as studies continue their follow-up?
- What resources are needed? What mechanisms exist to address them?