

Utilizing Business, University, and Community Resources to Target Adolescent Prescription Drug Abuse

By Rebecca Wade-Mdivanian, M.S.W., Dawn Anderson-Butcher, Ph.D., Kenneth Hale, Ph.D., Nicole Kwiek, Ph.D., Jill Smock, B.S., Dianne Radigan, M.S., and Jessica Lineberger, B.A.

Prescription drug abuse among youth is a growing national concern. According to the Monitoring the Future study, prescription drugs rank second only to marijuana as the most abused drugs among adolescents and young adults today (Johnston, Bachman, & O'Malley, 2010). Each day an estimated 2,200 young people between the ages of 12 and 17 abuse prescription painkillers for the first time (SAMHSA, 2010). The abuse of prescription drugs has dire effects: unintentional drug poisoning is the second leading cause of accidental death among all ages in the United States (Centers for Disease Control and Prevention, 2010).

This article highlights current efforts by the Cardinal Health Foundation (CHF), the Ohio State University (OSU), and community-based agencies to address this growing concern. Specifically, Generation Rx, a prescription drug abuse strategy developed by OSU's College of Pharmacy is overviewed and highlighted within two innovative community-based programs. Finally, initial formative data are presented to document successes related to preventing the abuse of prescription drugs.

GENERATION RX

Preventing prescription drug abuse is of special concern to Cardinal Health Inc., a provider of products and services that support the health care and pharmaceutical industry. To address this issue, the Cardinal Health Foundation supports the development of educational tools for use by community organizations, and also funds prescription drug abuse prevention programming in various communities across the country. As part of this effort, CHF

partnered with OSU's College of Pharmacy to develop a prescription drug abuse prevention strategy: "Generation Rx: Preventing the Misuse and Abuse of Prescription Medications." Generation Rx (www.CardinalHealth.com/GenerationRx) is intended to provide health care providers, parents/guardians, school personnel, and community leaders with interactive tools and resources aimed at educating teens and adults about the dangers of prescription drug abuse.

Three toolkits have been developed to date, with the goal of raising awareness of the scope, causes, and consequences of the abuse of prescription medications. The toolkits are constructed based on the target audience: health care professionals and other adults, youth, and the elderly. All three toolkits provide information about how to safely dispose of prescription medications, how to learn more about the prescription drug problem, and how to prevent it. Each of the toolkits was designed to be user-friendly and can be presented in a variety of social settings.

To impact youth, it is critical to develop programs that will engage young people.

Specifically, the youth toolkit is designed to appeal to the unique learning styles of teens. The toolkit can be used by adult presenters or by youth presenting to peer groups. It includes interactive materials such as skits, games, discussion prompts, and peer-to-peer interaction; as well as talking points, presentation materials and tips, and visual aids. The toolkit provides a menu of materials and activities for preparing 30-60 minute programs.

The various Generation Rx toolkits and resources have been used in community-based programs and pharmacies in almost every state. They are a tool which pharmacists, youth workers, educators, and youth use to disseminate factual information about the abuse of prescription drugs.

USING GENERATION RX IN COMMUNITY-BASED PROGRAMS

Because of the importance of prevention, one key priority for CHF has been the implementation of Generation Rx in prevention programs, schools, and youth development organizations. As a result, CHF has funded a variety of youth-serving agencies to implement Generation Rx and other related strategies. Activities funded under the grant program aim to: 1) increase awareness of prescription drug abuse, 2) increase knowledge of the dangers of abusing prescription drugs and how to reduce access to prescription drugs, and 3) increase interest in and develop skills to openly discuss issues related to prescription drug abuse. These priorities reflect the components of quality prevention programs as they focus on awareness and skill development (Botvin & Griffin, 2007; Du Pont, 2010; Hale, Murawski, & Huerta, 2009; Johnson et al., 2007; Nation et al., 2003). The following two examples demonstrate how youth programs have incorporated Generation Rx into their program design.



LIFE Sports targets youth workers and parents, as research indicates that prescription drug use by teens is influenced by those closest to them.

LiFE Sports

Learning in Fitness and Education through Sports (LiFE Sports) is a youth development program located at OSU (Anderson-Butcher et al., 2010). LiFE Sports (www.osulifesports.org) provides at-risk, underprivileged youth with a free four-week summer camp and year-round sports clinics focused on increasing social competence. Sport and physical activity are used as the avenue to reach youth and teach critical life skills. Over the past two years, LiFE Sports has raised awareness about the dangers of prescription drug abuse to urban youth, community youth workers, and parents/families through a variety of means.

First, LiFE Sports incorporated a session that teaches youth (ages 9–15) about the consequences of abusing prescription medications within the LiFE Sports Camp health and fitness curriculum. Youth leaders (ages 16–18) at the camp are also instructed on the dangers and consequences for prescription drug abuse. These youth leaders then are able to provide mentoring and role modeling of this issue to younger campers.

Prescription drug abuse is a multi-faceted issue and must be addressed through a variety of methods.

Additionally, LiFE Sports targets youth workers and parents, as research indicates that prescription drug use by teens is influenced by those closest to them (McCabe et al., 2007; Sung et al., 2005). An annual orientation meeting is held for parents of participating youth which includes a Generation Rx presentation about the dangers of prescription drug abuse. Generation Rx materials also are provided to parents and caregivers that describe strategies for talking with their children about prescription drug abuse.

While parents are a critical avenue for discussing the dangers of prescription drug abuse, properly trained youth workers and coaches also have been found to be able to help prevent prescription drug abuse among teens (Coatsworth & Conroy, 2007; McCabe et al., 2007; Nation et al., 2003; Smith & Smoll, 1997; Sung et al., 2005). To ensure that all coaches and staff are trained in this important issue, LiFE Sports helps to provide seminars to other OSU sports camps' staff. These seminars provide prescription drug abuse information and resources. Finally, LiFE Sports annually raises awareness about this issue through the dissemination of a LiFE Sports newsletter focused on the abuse of prescription medications.

Youth to Youth International

Youth to Youth International (YYI) has been working over the past two years to develop a prescription drug abuse and misuse program that is youth-led and youth-driven. Founded in 1982, YYI (www.youthtooyouth.net) is a community-based drug prevention and youth leadership program that utilizes the voices and leadership of youth to reach other youth and deter risk-taking behavior. Their work is aimed at middle and high school students both inside and outside the U.S. In 2010, YYI created a Youth Advisory Board comprised of middle and high school students. This Youth Advisory Board and YYI staff members co-developed a peer-to-peer presentation titled, "The pHARMING Effects." This presentation is based on the many materials provided in Generation Rx and utilizes skits, videos, and audience participation. The Youth Advisory Board regularly delivers its presentation to youth at local middle schools, high schools, and after school programs.

This year YYI is working to grow this programming by working year-round with high schools and youth agencies to recruit additional "youth teams." Each invited school or agency selects 5-10 teens and at least one adult advisor to serve as the leaders in

their agency and/or school. These teams then participate in a training provided by YYI where the groups learn how to deliver "The pHARMING Effects" presentation. These youth teams are then charged with taking the message back to their communities. By training peer educators, YYI can reach a significantly higher number of youth than if they tried to do it alone. Additionally, youth also are more likely to change behavior based on peer influence than adult presentations (Gardner & Steinberg, 2005).

Additionally, YYI in partnership with InterACT, the OSU Theater Project for Social Change, presents dramatizations about prescription drug abuse to over 400 youth and adult conference participants at their annual Summer Youth Leadership Conference. They also enlist a social norm/educational campaign during the annual conferences which includes posters that relay information from the Generation Rx toolkit.

While much of YYI's work has been focused on youth, the organization has also reached out to parents via social media outlets to encourage them to participate in Cardinal Health sponsored Medicine Disposal days. Additionally, during their annual Summer Youth Leadership Conference, an adult forum is held where resources from Generation Rx are shared with adult participants.

MAKING AN IMPACT

In addition to supporting grantees, CHF has invested in exploring the impact of their grant program. In partnership with OSU's College of Social Work, youth and adult evaluation tools were developed to be used after the implementation of prescription drug abuse prevention programs, including Generation Rx. The youth evaluation tool is intended for youth in middle school through college and the adult evaluation tool is intended for parents/guardians, youth workers, coaches, school personnel, and other community members.

Currently participants in various funded programs complete these tools after participating in a training, workshop, or activity. Certainly there are limitations to this design. For instance, actual changes over time in perceptions or knowledge are not measured. Additionally, this method only provides a retrospective glance at program impact and satisfaction. At this point in the overall Generation Rx development and implementation process, this type of formative assessment was deemed appropriate given the current focus on continuous improvement. Future research will examine outcomes more rigorously. Nonetheless, data collected thus far are presented next and provide initial positive findings.



Properly trained youth workers and coaches also have been found to be able to help prevent prescription drug abuse among teens.

To date, 318 adults and 1,187 youth across 21 programs have completed the evaluation tools. All participants completed the surveys immediately after the conclusion of a training, workshop, or activity. Initial formative results from these tools indicate that the efforts of CHF and their community partners are working. Specifically, among youth participating in the programs:

- 81% reported that they are more aware of the dangers of prescription drug abuse
- 87% reported being less likely to share prescription drugs
- 89% reported being less likely to use prescription drugs that are not prescribed for them
- 90% reported that they understand that using someone else's prescription drugs may be harmful to their health

Initial results have also been positive for programs focused on adults. Results from these programs include:

- 95% reported that they are knowledgeable of the dangers of abusing prescription drugs

- 93% reported being more likely to store their prescription drugs in a secure location
- 96% reported they will properly dispose of prescription drug medications
- 92% reported that they are more likely to connect someone who is abusing prescription drugs to a drug abuse professional

In the end, this assessment provides preliminary self-report intention-related evidence to support Generation Rx and CHF's investments in the community. They also provide useful data for the funder and the grantees in relation to the continuous refinement of tools, resources, and programming in support of a strengthened design strategy.

IMPLICATIONS FOR PRACTICE

Prescription drug abuse is a multi-faceted issue and must be addressed through a variety of methods. To impact youth, it is critical to develop programs that will engage young people. In addition, educational programs must be targeted at peers, parents,

Table 5.1
Research-Based Prevention Best Practices as Implemented Through Cardinal Health Foundation, Generation Rx, LiFE Sports, and Youth to Youth International

<i>Research-Based Prevention Best Practice</i>	<i>Key Strategies of CHF, Generation Rx, LiFE Sports, and Youth to Youth International</i>
Teens are influenced by those closest to them, including other youth, coaches, and parents. Programs should be comprehensive (i.e., target multiple audiences). (McCabe et al., 2007; Nation et al., 2003; Sung et al., 2005)	Both LiFE Sports and YYI target parents, youth workers, and coaches through presentations and training sessions.
Coaches and youth workers, when trained properly, play a crucial role in the perceptions and behaviors of youth. (Coatsworth & Conroy, 2007; Nation et al., 2003; Smith & Smoll, 1997)	All coaches and youth workers in both LiFE Sports and YYI are taught prevention strategies around this issue. Generation Rx provides toolkits aimed at adults.
Public education campaigns should be included in programs to raise overall community awareness. (Du Pont, 2010; Hale, Murawski, & Huerta, 2009)	Both LiFE Sports and YYI educate parents, adults, and youth. LiFE Sports uses a newsletter while YYI engages in social norming campaigns.
School-based education and prevention programs are effective avenues for impacting teen drug abuse. Programs, when possible, should link with their local school districts. (Botvin & Griffin, 2007; Johnson et al., 2007; Simmons, 2010)	YYI works directly with the schools by creating school-based, youth-led prevention teams.
Prevention efforts should mobilize the community for action planning and implementation. (Johnson et al., 2007)	YYI creates youth-led prevention teams which implement programs in their own community. CHF has worked closely with Cardinal Health employees to raise awareness within their local community groups such as parent/teacher associations and Rotary Clubs.
An effective early intervention strategy is to ensure that both youth and families are able to identify the symptoms of prescription drug abuse. Programs should incorporate content on early symptom identification. (Botvin & Griffin, 2007; Simmons, 2010)	Generation Rx includes information on the signs and symptoms of prescription drug abuse, which is used in YYI and LiFE Sports.
Programs should focus on teaching cognitive, social, and behavioral skills. (Botvin & Griffin, 2007; Johnson et al., 2007; Nation et al., 2003)	Generation Rx is geared at increasing knowledge. The interactive skits allow youth to practice skills in real life scenarios.
Programs should provide opportunities for pro-social activities that allow youth to develop belonging and connectivity. (Anderson-Butcher, 2010; Nation et al., 2003)	Both LiFE Sports and YYI are group-based, which allow youth to interact and develop critical pro-social peer connections.
Programs should provide opportunities for youth leadership and youth voice through an autonomy-supportive environment. (Botvin & Griffin, 2007; Johnson et al., 2007; Simmons, 2010)	YYI creates youth-led prevention teams while LiFE Sports works directly with youth leaders at camp to teach them how to talk about this issue with younger campers.
Programs should evaluate outcomes and use outcome evaluations to improve programming. (Nation et al., 2003)	All grantees are required to use the developed evaluation tools and are provided with individualized outcome reports.

families, youth workers, coaches, and other caring adults in the community. We have applied several prevention-related strategies during the application on Generation Rx. Table 5.1 provides a brief overview of best practices that are critical to the success of prescription drug abuse programs, many of which are used in Generation Rx, CHF, LiFE Sports, and YYI programs. As such, the table also provides examples of how these entities have incorporated these best practices into their programs.

In conclusion, the detrimental impacts of prescription drug abuse among youth are clear. Early work with the CHF and their community partners aim to address this important issue and prepare youth to better understand how to use prescription drugs safely. To prevent prescription drug abuse in our communities, the CHF has dedicated resources to creating tools, implementing community-based programs, embedding the anti-prescription drug abuse message into quality youth development programs, and public service announcements and social media. Preliminary feedback demonstrates that the efforts of CHF in partnership with OSU are making a difference in this battle. >>

Rebecca Wade-Mdivanian, M.S.W., is the Director of Youth Development Initiatives at the Ohio State University, College of Social Work and a Licensed Independent Social Worker. She can be reached at: wade-mdivanian.1@osu.edu.

Dawn Anderson-Butcher, Ph.D., is a Full Professor in the College of Social Work at The Ohio State University (OSU) and a Licensed Independent Social Worker-Supervisor. Her research focuses on positive youth development. She can be reached at: anderson-butcher.1@osu.edu.

Kenneth Hale, Ph.D., is the Assistant Dean for Professional and External Affairs in the College of Pharmacy at the Ohio State University. Dr. Hale helped establish the Generation Rx Initiative. He can be reached at: hale@pharmacy.ohio-state.edu.

Nicole Kwiek, Ph.D., is a Clinical Assistant Professor and the Assistant Director for Educational Outreach at the Ohio State University College of Pharmacy in Columbus, Ohio. She can be reached at kwiek.1@osu.edu.

Jill Smock, B.S., Ohio Certified Prevention Specialist (OCPS) II, is the Director of Youth to Youth International, based in Columbus, Ohio. She can be reached at: jsmock@youthtoyouth.net.

Dianne Radigan, M.S., is the Director of Community Relations for Cardinal Health. She can be reached at Dianne.Radigan@CardinalHealth.com

Jessica Lineberger, B.A., is the senior grants manager for the Cardinal Health Foundation in Dublin, Ohio. She can be reached at: jessica.lineberger@cardinalhealth.com.

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Web Resources

Generation Rx Initiative

pharmacy.osu.edu/outreach/generation-rx

Generation Rx is highlighted within this issue (see page 17). This website provides more details about the initiative and access to the toolkits. It is intended for schools, colleges, and communities.

Not In My House

notinmyhouse.drugfree.org

Created by the Partnership at Drugfree.org and intended for parents, this website provides information specifically about prescription drug abuse, much of it in video format. It pairs nicely with the information at www.drugfree.org, which offers information for parents about how to talk with their children about drug use in general.

Office of National Drug Control Policy

www.whitehouse.gov/ondcp/prescription-drug-abuse

Prescription drug abuse is a priority area for the ONDCP. This website offers resources developed by various federal government entities, including access to the "2011 Prescription Drug Abuse Prevention Plan," and links to a number of resources produced by the Centers for Disease Control and Prevention, the Federal Drug Administration, and the National Institute on Drug Abuse.

Adolescent Prescription Drug Abuse

Preventing Prescription Drug Misuse

www.prescriptiondrugmisuse.org

Created by the California Department of Alcohol and Drug Programs, this website is an excellent starting point. It includes definitions of prescription drug abuse, highlights prevalence and consequences, and gives strategies and tips for people within schools, communities, and families who want to prevent prescription drug abuse.

SAMHSA: Prescription Drugs

store.samhsa.gov/facet/Substances/term/Prescription-Drugs

The Substance Abuse and Mental Health Services Administration provides many reports and brochures on prescription drug abuse including "Helping Students Avoid Prescription Drug Abuse," "Talking to Your Patients About Prescription Drug Abuse," and "Getting High on Prescription and Over-the-Counter Drugs Is Dangerous: A Guide to Keeping Your Teenager Safe in a Changing World."