# Non-Medical Use of Prescription Drugs (NMUPD) Factsheet

# Community Domain

## Risk Factors in the Community Domain:

**1** Availability and Retail Access ✪✪

**2** Community Norms Favorable Towards Use �

**3** Neighborhood Quality, Disorganization, Community Attachment, Mobility �

Listed below are strategies that research indicates would address these risk and protective factors. Also provided are brief descriptions of the literature around each strategy and their level of effectiveness, which is indicated by the number of check marks next to each title (see legend for more information). While these risk factors are all in the community domain, the strategies may be implemented at different levels and with different stakeholders (i.e., not all strategies would be most effective when implemented at the community level). For example, Prescription Monitoring Programs (see below) are designed to be developed by states.

For full citations, please refer to the literature reviews on NMUPD compiled by the CAPT in 2012.

## Strategies That Address the Risk Factors:

**1** **Prescription Monitoring Programs (PMP)** ✓✓✓

Much has been written about Prescription Monitoring Programs (PMP), and their potential to help reduce the Non-Medical Use of Prescription Drugs. However, PMPs are implemented at the state-level, and their components are not determined by communities. Communities can play a role in them, however, by promoting their use amongst local prescribers.

A White Paper on PMPs is available here: http://www.pewhealth.org/uploadedFiles/PHG/Content _Level_Pages/Reports/PDMP_Full%20and%20Final.pdf and more information is available from these resources: Paulozzi et al. (2011); Baehren et al. (2010); PMP Center of Excellence at Brandeis University (2011).

**1** **Changing Prescriber Practices through Education** ✓✓

In addition to encouraging prescribers to sign up for their state's PMPs, educating prescribers is another opportunity for communities to inform prescribers about how over-prescribing may impact patients. However, educating prescribers about prescribing practices should not be a strategy used in isolation. It should be incorporated into a bigger plan. Communities can also provide prescribers information, such as Scott Fishman's book on Pain Management, the first chapter of which is available for free here: http://www.fsmb.org/cme/.

For more information on this strategy, see Manchikanti (2007); Twombly & Holtz (2008); and Cochella & Bateman (2011).

**1** **Reduce Access to Prescription Drugs via the Internet** ✓

Addressing access to prescription drugs by reducing access to them on the internet has limited theoretical support. This is due, in large part, to the very limited number of users of prescription drugs non-medically who report accessing those prescriptions via the internet (0.2%). However, should parents be concerned their children are accessing medications via the internet, blocking access to sites selling these medications (or password protecting the sites) is a potential way to limit the youth's access to these sites.

For more information on this strategy, see McCabe, Cranford, Boyd, & Teter (2007).

**2** **Use of Mass Media to Change Community Norms** ✓✓✓

In order to address community norms favorable towards use, using a mass media strategy to change those norms can be effective. Both using the mass media and developing a social marketing campaign can be effective. Messages must be clear and tailored to the appropriate audience (depending on a

community's data, this may be parents or other adults from whom young people access prescription drugs). In order to be effective, the message must be repeated often and across multiple channels, ensuring the message has a far-reach. This strategy should not be used in isolation, and should be a part of a comprehensive strategic plan.

A campaign in Utah, for example, showed promise in raising awareness on using prescription medications as directed, and about half of those reported that as a result of seeing the messages, they were less likely to share prescriptions.

For information on how to develop an effective health communication and/or social marketing campaign, see: http://www.cdc.gov/healthcommunication/.

For more information on this strategy, see: Johnson, Porucznik, Anderson, & Rolfs (2011).

**2  Use of Community Coalitions; Community Mobilization ✓✓**

As with many prevention efforts, the use of community coalitions and community mobilization efforts show theoretical support for reducing the non-medical use of prescription drugs. Because of the nature of community coalitions and community mobilization, it is difficult to link the distinct contribution of coalitions and community mobilization to reduced NMUPD.

One strategy that has been implemented by community coalitions is the use of prescription disposal programs. Early research indicates that disposal programs (also known as Take-Back Programs) may not reduce access to prescription medications, but may help raise awareness of NMUPD. Communities are encouraged to think about using strategies like this as a part of a larger, more comprehensive plan.

For more information on these types of strategies, see Albert et al. (2011); Ogilvie et al. (2008) and http://www.carnevaleassociates.com/prescription_drug_takeback_programs_&_substance_abuse_prevention_final.pdf.

**3  Other Strategies with Limited Support:**
Interventions which seek to *alter the physical environment/public space*. For more information see Birkmayer, Fisher, Holder, & Yacoubian (2008).

**Legend:**

✪✪✪  Strong association between risk/protective factor & NMUPD;

✪✪  Moderate association between risk/protective factor & NMUPD;

◆  Insufficient evidence between risk/protective factor & NMUPD;

✓✓✓  Evidence of direct effects on NMUPD;

✓✓  Theoretical support for substance abuse, but not necessarily for NMUPD;

✓  Limited theoretical support, No evidence for NMUPD specifically and/or inconsistent findings in the literature for substance abuse generally

# School Domain and Peer Domain

## Risk Factors in the School Domain:

**1** Academic Failure/Low Education Achievement ✪✪

**2** Low School Attachments/Bonding ✪✪

In the School Domain, there are fewer evidence-based strategies to address the non-medical use of prescription drugs than in the Community Domain. However, there are also strategies that can be done in conjunction with other youth service providers that can address peer-to-peer risk factors.

## Risk Factors in the Peer Domain:

**3** Normative Misperceptions of Peer Use �

**4** Peer Norms: Peer Approval of Use ✪✪

**5** Number of Friends Who Use ✪✪

**6** Perception of Harm ✪✪✪

**7** Delinquent/Anti-Social Behavior ✪✪✪

Listed below are strategies that research indicates would address the risk and protective factors in the School and Peer domains. Also provided are brief descriptions of the literature around each strategy and their level of effectiveness, which is indicated by the number of check marks next to each title (see legend for more information).

## Strategies That Address the Risk Factors:

**1** **Academic Skills Enhancement** ✓✓

**2** **Enhance connection and bonding to school** ✓✓

While no studies on either topic were found in the past five years, earlier research indicates that improving a child's educational achievement and improving bonding to school reduce his/her risk for NMUPD.

Academic skill enhancement includes strategies that incorporate tutoring, vocational training, and college prep – strategies that in theory work at increasing the likelihood of students having a positive experience at school, and whose ability to do well in the classroom is supplemented by after-school opportunities.

Schools interested in focusing on these kinds of strategies should consider how to help students generally feel more comfortably at school. Often these types of strategies include opportunities for mentoring, getting to know teachers one-on-one, and having positive, adult role-models.

Strategies that are successful in increasing academic skills and increasing connection and bonding to schools may also decrease delinquent and anti-social behavior.

For more information on the potential of these strategies, see Harrell, Cavanagh, & Sridharan (1998) however please see http://www.colorado.edu/cspv/blueprints/promising programs/BPP04Removal.pdf for updated information.

**3** **Peer Leadership, Social Skills & Personal**
**4** **Competence Skills** ✓✓

**5** Strategies which increase leadership, social, and personal competence skills are familiar to prevention

**6** efforts. In many cases, these types of strategies are used to have youth provide messages to their peers

**7** about the potential harms of substance use. Included in these types of strategies are often refusal skills, and messaging that seeks to correct any misperceptions about the number of youth who use substances in a given setting. (See below for Social Norms Campaigns)

While there is research which has shown peer leadership-related strategies to have some

effectiveness, other studies have found there to be inconsistent evidence of effectiveness.

Schools and communities seeking to reduce NMUPD by addressing peer norms are encouraged to develop and use these interventions following best practices, and ensure they are addressing the distinct risk factors found in the target population.

For more information on these strategies, see Fang, Schinke, & Cole (2010); Schinke, Fang, & Cole (2009); Spoth et al. (2008); and Gruenewald et al. (2009). For examples on the types of messaging that might be effective, see http://www.cardinal.com/us/en/generationrx and http://www.useonlyasdirected.org[1].

### 3  Social Norms Campaigns ✓✓✓

As is the case in preventing the use of other substances amongst young people, social norms campaigns have also proven to be effective in reducing NMUPD by addressing perceptions of peer use.

Approaches like social norms campaigns can correct the misperception that NMUPD is a normative behavior among youth. One randomized controlled trial of a web-based program for mothers and daughters showed reduced normative misperceptions of NMUPD. Studies like this, combined with evidence from other areas of prevention attest to the effectiveness of the strategy. However, implementers must consider both frequency and length of the campaign, as these have direct impacts on the level of effectiveness of the strategies.

An effective social norms campaign should be tested and vetted with the target population, and should adhere to social norms marketing best practices. More information is available here: http://www.alcoholeducationproject.org/guidebook.html.

For more information on this strategy, see Twombly & Holtz (2008); and Schinke (2008).

### 6  Strategies designed to increase perceived risk/harm for NMUPD ✓✓✓

A few studies have demonstrated positive effects on perceptions of risk or harm to reduce the use of NMUPD.

There are various NREPP[2] prevention curriculum programs that are designed to reduce substance use by either combining individual prevention curricula with environmental strategies or by improving youth decision-making, goal-setting, and communication strategies. Increasing perceived risk or harm of NMUPD specifically, through the use of these kinds of curricula, may also reduce a youth's likeliness to use NMUPD.

Implementers should be aware that the positive effects of these strategies and programs may not be sustained over time.

For more information on this strategy, see Gruenewald et al. (2009); Osborne & Ross (2006).

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[1] These links are provided as examples, are quoted in the literature, and in no way reflect an endorsement of these products over others.

[2] National Registry of Evidence-based Programs and Practices

# Family Domain

## Risk Factors in the Family Domain:

**1** Social Access ✪✪

**2** Poor Parental Monitoring/Low Parental Involvement ✪✪

**3** Parental Disapproval of Substance Use ✪✪

In working with families there are various ways in which prevention programs can impact the non-medical use of prescription drugs by using strategies with relatively high levels of evidence. As with other interventions, prevention programs should consider which risk factors are most relevant to their own community conditions prior to implementing strategies. A comprehensive NMUPD prevention plan, however, should include a component aimed at engaging parents in some way, as research shows parents are both a source of prescription drugs and have influence on their children's behavior. Below are strategies that research indicates would address the risk and protective factors in the Family Domain. Also provided are brief descriptions of the literature around each strategy and their level of effectiveness, which is indicated by the number of check marks next to each title (see legend for more information).

## Strategies That Address the Risk Factors through Parent Education:

**1** **Restrict Availability** ✓✓

As parents may represent a relatively easy source of access to prescription drugs, and data indicating that when many teens get prescription drugs for the first time, they get them from family or friends, reducing social access to prescription drugs is an important strategy for communities to consider.

Educating parents about the importance of conducting an inventory of prescription drugs available in the home, monitoring the use of those prescription drugs and restricting access to prescription drugs in the home, may reduce teen access to prescription drugs. Combining these strategies with parental education may reduce the number of teens reporting that prescription medications are "easy" to obtain from their parents.

For more information on this strategy, see Gruenewald, Johnson, Shamblen, Ogilvie & Collins (2009); Johnson et al. (2007).

**2** **Parental Monitoring** ✓✓✓

As with the prevention of other substances, increasing parental monitoring through training and awareness raising can help reduce NMUPD.
Improving parental monitoring of their children and hosting trainings to assist parents with establishing standards and ensuring consistent discipline have been shown to be effective prevention strategies. Completed successfully, these strategies can help improve communication between parent and child, increase familial closeness, increase knowledge of family rules, and increase parental awareness of activities. It should be noted that any program that works effectively with parents, should also include a component for the child.

For more information on this strategy, see Schinke, Fang & Cole (2008).

**3** **Parent training aimed at clear communication of disapproval, family management** ✓✓✓

Research shows that when teens understand that their parents disapprove of substance use, the teens are less likely to use.

Prevention programs that target parental nurturing and bonding, parent-child communication and other risk and protective factors found long-term effects on children not using prescription drugs non-medically. There are currently programs on NREPP that include components of these strategies.

For more information, see Spoth, Trudeau, Shin & Redmond (2008); Schinke et al (2008).

# Individual Domain

## Risk Factors in the Individual Domain

**1** Alcohol/Illicit Drug use or Dependence ✪✪✪

**2** Personality Characteristics/Sensation-seeking ✪✪✪

**3** Early Onset of Use ✪✪

When examining the prevention domains, the research on non-medical use of prescription drugs is the strongest in the Individual Domain. This is mostly due to the fact that this is the easiest domain to study for the impacts and levels of effectiveness on the topic.

Below are strategies that research indicates would address the risk and protective factors listed above. Also provided are brief descriptions of the literature around each strategy and their level of effectiveness, which is indicated by the number of check marks next to each title (see legend for more information).

Please note the two additional risk factors listed below, for which research is available, but where special attention is required.

## Strategies That Address the Risk Factors:

**1** **Improve personal competence skills** ✓✓

**2**
**3** Improving a young person's self-efficacy, decision-making and refusal skills are some examples of the types of skills that can impact the non-medical use of prescription drugs. These kinds of skills can be built through strategies that engage young people in positive ways, including peer leadership and social competency.

As with building these skills for other prevention programming, they have shown promise for the reduction of NMUPD.

For more information on these strategies, see Fang, Schinke, & Cole (2010); Schinke, Fang, & Cole (2009); Spoth et al. (2008) and Gruenewald et al. (2009.

## Other Risk Factors:

- Mental Health Diagnosis ✪✪
- Chronic Pain (non-cancer) ✪✪

The above two risk factors are in the Individual Domain and require special attention. These are risk factors best addressed by doctors, physicians or behavioral health specialists.

While a mental health diagnosis is in the literature as a risk factor for NMUPD, this risk factor should be approached with care. This is not to suggest that individuals with a potential mental health diagnosis should avoid medications, but rather that some attention should be paid to their prescriptions. In fact, effectively treating a mental health diagnosis (with the right medications), may be a protective factor against misusing other prescription drugs non-medically.

The same is true for the treatment of chronic pain, done in a safe, controlled environment. For more information, see Chou, et al (2009); Paulozzi, Weisler & Patkar (2011); Passik, Kirsh, & Casper (2008); Fang, Schinke, & Cole (2010); Schinke, Fang, & Cole (2009); Spoth et al. (2008).

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