

Examples of Community-level Logic Models for Reducing the Non-Medical Use of Opioid Prescription Drugs

Logic model development is central to strategic planning, helping us identify appropriate approaches for addressing salient risk and protective factors, and ultimately producing anticipated outcomes. Below are three examples of logic models—two present a community-level response to reducing the non-medical use of opioid prescription drugs (NMUOPD) and a third presents a state-level response. Each example contains a statement describing the problem (NMUOPD); the goals and objectives for addressing the problem; inputs—what resources and activities comprise the response; partners needed to effectively implement the approach; outputs—the result of these resources and activities; and short-, intermediate-, and long-term outcomes.

Please note that these logic models are intended to be a guide, as the problem statements and inputs described are not relevant to, or present in, all states or communities.

COMMUNITY-LEVEL LOGIC MODEL: EXAMPLE #1

Problem Statement: The local university is reporting an increase in non-medical use of opioid prescription drugs based on information from a health survey. Furthermore, there were three incidents of students overdosing on prescription drugs that were not prescribed to them this past year.

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Goal	Objectives	Inputs	Partners	Outputs	Short-Term Outcomes	Intermediate Outcomes	Long-Term Outcomes
Decrease students' social access to opioid non-medical prescription drug use	Increase prescribers' knowledge, attitudes and perceived efficacy to follow prescribing practices found to reduce NMUOPD	<p>Educational program for campus-area prescribers that focuses on opioid prescribing guidelines, non-narcotic alternatives to pain treatment, and identification of opioid dependency among patients</p> <p>Education program also includes effective approaches for discussing the dangers of prescription drugs with their patients.</p>	<p>Healthcare providers willing to train prescribers</p> <p>University's health clinic, local hospitals and community-based health clinics willing to host and recruit local prescribers</p>	Number of workshops offered and number of prescribers attending workshops	<p>X% of trained prescribers report increase in knowledge, attitudes, and perceived efficacy to implement guidelines, alternative treatments, ID opioid dependency, and discuss dangers of prescription drugs with patients</p> <p>X% of trained prescribers report intentions to change behaviors in their practice as result of workshops</p>	<p>X% of trained prescribers report having changed behaviors in their practice three months post-workshop</p> <p>Decrease by X% the number of students who report having access to opioid prescription drugs for non-medical use (e.g., directly through prescribers, through fellow students)</p>	<p>X% decrease in student-reported non-medical use of opioid prescription drugs</p> <p>X% decrease in number of overdoses related to opioid prescription drugs</p>

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Goal	Objectives	Inputs	Partners	Outputs	Short-Term Outcomes	Intermediate Outcomes	Long-Term Outcomes
Decrease students' social access to opioid non-medical prescription drug use	Increase knowledge of students and other community members who receive opioid prescription drugs regarding proper use, storage, and disposal of their medications	Provide printed educational materials and verbal guidance from prescribers (see above) to patients (students and other community members) prescribed opioids about the safe use, storage, and disposal of prescription drugs, as well as the dangers of sharing prescription drugs with others	Local prescribers to help educate their patients about proper use, storage, and disposal of their medications Local hospitals, clinics, and pharmacies to help disseminate printed materials regarding the proper use, storage, and disposal of medications	Number of printed materials handed to patients receiving opioid prescriptions Number of patients with opioid prescriptions who report that prescribers discussed with them the safe use, storage, and disposal of prescription drugs	At least X% of patients with opioid prescriptions report receiving educational materials At least X% of patients with opioid prescriptions report that prescribers discussed with them the safe use, storage, and disposal of prescription drugs	At least X% of patients with prescriptions for opioids report following safe practices for using, storing, and disposing of unused opioid prescription drugs	X% decrease in student-reported non-medical use of opioid prescription drugs X% decrease in number of overdoses related to opioid prescription drugs

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Goal	Objectives	Inputs	Partners	Outputs	Short-Term Outcomes	Intermediate Outcomes	Long-Term Outcomes
Increase students' perceptions of risk associated with prescription drug misuse	Increase awareness among students of risks associated with opioid prescription drug misuse	Campus-based social media campaign focusing on raising awareness of the dangers of non-medical use of opioid prescription drugs, as well as safe storage and disposal of prescription drugs	University's office of communication to make use of existing communication channels to transmit messages University's office of campus/resident life and relevant student groups to make use of their communication channels (e.g., Facebook pages, flyers on dorm rooms, ads on student-run radio stations, etc.) to get message out	Number of messages circulated through campus (e.g., flyers, messages on social media such as Facebook and Twitter, ads on campus media such as radio stations)	At least X% percent of students report being exposed to campaign	Increase by X% the number of surveyed students reporting harms associated with prescription drug misuse and knowledge of safe storage and disposal of prescription drugs	X% decrease in student-reported non-medical use of opioid prescription drugs X% decrease in number of overdoses related to opioid prescription drugs

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Goal	Objectives	Inputs	Partners	Outputs	Short-Term Outcomes	Intermediate Outcomes	Long-Term Outcomes
Decrease risk of self-medication using opioid prescription drugs among students with psychological distress or mental health disorders	Identify and refer to treatment students with potential psychological distress or mental health disorders associated with non-medical use of opioid prescription drugs	X% of staff who report providing screening for, brief intervention to, and referring at risk students to mental health center Examples of activities include holding discussions with groups of students about mental health, talking one-on-one with students who seem to struggle, referring students to mental health center, etc.	University's campus life office to host and recruit staff to attend trainings University's mental health professionals to provide trainings	Number of staff trained Number of students screened Number of students referred to what type of services	X% of staff report being knowledgeable and prepared to identify and refer students to mental health center	Number of students referred to mental health center	X% decrease in student-reported non-medical use of opioid prescription drugs X% decrease in number of overdoses related to opioid prescription drugs

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COMMUNITY-LEVEL LOGIC MODEL: EXAMPLE #2

Problem Statement: Your community has been informed by a state agency that the state's Prescription Drug Monitoring Program shows a significantly high number of opioid prescription drugs being prescribed and sold (per capita) in your city compared to the rest of the state. This information is consistent with an increase in prescription drug-related opioid overdoses reported by hospitals in your city.

Goal	Objectives	Inputs	Partners	Outputs	Short-Term Outcomes	Intermediate Outcomes	Long-Term Outcomes
Decrease access to opioid prescription drugs for non-medical use	Increase prescribers' knowledge, attitudes and perceived efficacy to follow prescribing practices found to reduce NMUOPD	Collaborate with local hospitals to offer prescriber education workshops on preventing the non-medical use of prescription drugs (e.g., guidelines for safe prescribing, alternatives for pain medication, educating patients, using PDMP to identify aberrant prescription drug use)	Healthcare providers willing to train prescribers Local hospitals and health clinics willing to host and recruit local prescribers	Number of workshops offered and number of prescribers attending workshops	X% of trained prescribers report intentions to change behaviors in their practice as result of workshops X% of trained prescribers report understanding how to use PDMP data to screen for aberrant prescription use and/or potential polysubstance use	X% of trained prescribers report having changed behaviors in their practice three months post-workshop X% of trained prescribers report using PDMP data to screen for aberrant prescription use and/or potential polysubstance use	Decrease in number of patients using multiple prescribers to obtain opioids ("doctor shopping") Decrease in opioid prescription drug-related overdoses

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Goal	Objectives	Inputs	Partners	Outputs	Short-Term Outcomes	Intermediate Outcomes	Long-Term Outcomes
Decrease access to opioid prescription drugs for non-medical use	Raise community awareness of the dangers of NMUOPD	Launch media campaign to raise awareness of the dangers of NMUOPD	Local media outlets to help promote message Local organizations to help promote message through their social media channels (e.g., faith-based organizations, service clubs)	Number of media ads/announcements by type (e.g., radio ads, TV ads, newspaper ads, social media ads)	X% of surveyed residents report being exposed to campaign a month after launch	X% of surveyed residents report understanding the risks of non-medical use of prescription drugs and how to avoid these risks three months after launch of campaign	Decrease in number of patients using multiple prescribers to obtain opioids (“doctor shopping”) Decrease in opioid prescription drug-related overdoses

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STATE-LEVEL LOGIC MODEL

Problem Statement: ANYSTATE's Statewide Epidemiological Outcomes Workgroup (SEOW) has identified young adults (age 18-25) particularly in urban areas as being at highest risk for non-medical use of opioid prescription drugs (NMUOPD). Key contributing factors to this problem identified by the state include high availability (retail access) to opioids for young adults, and low perception of harm among this population.

Goal	Objectives	Inputs	Partners	Outputs	Short-Term Outcomes	Intermediate Outcomes	Long-Term Outcomes
Decrease NMUOPD among 18 to 25 year-olds in ANYSTATE	Decrease retail access to prescription opioids for young adults	Create data-sharing systems among key partners with a new campaign that provides educational materials and seminars on system use	Hospitals, law enforcement agencies, state-level public health agencies	Number of seminars Number and type of educational materials distributed Number of new partners/sectors enrolled in sharing system Number of times data is shared	Increased use of prescription drug monitoring program (PDMP) system, as indicated by an increase in # and type of partners reporting use of PDMP data and in # of times data is shared	Availability (retail access) to opioids for young adults has decreased by X amount in X time, as indicated by PDMP data	Non-medical use of opioids for young adults in urban areas in ANYSTATE are reduced by X% in X years, as indicated by...

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Goal	Objectives	Inputs	Partners	Outputs	Short-Term Outcomes	Intermediate Outcomes	Long-Term Outcomes
Decrease NMUOPD among 18 to 25 year-olds in ANYSTATE	Decrease retail access to prescription opioids for young adults	Develop prescriber education program focusing on the risks of sharing medication, clinical guidelines, and safe prescribing practices	State-level prescriber networks NMUPO expert trainers	Number of prescriber trained Number of trainings	Providers report increased knowledge of the risks of sharing medication, clinical guidelines, and safe prescribing practices from pre- to post-test	Availability (retail access) to opioids for young adults has decreased by X amount in X time, as indicated by PDMP data	Non-medical use of opioids for young adults in urban areas in ANYSTATE are reduced by X% in X years, as indicated by...
	Increase perception of harm of prescription opioids among young adults	Create and implement a public awareness campaign targeting urban young adults to increase perception of harm	Marketing partner Traditional and social media outlets	Number of venues, views, airings, website hits	Campaign has adequate reach and dose among young adults, as indicated by... ¹	X% increase in young adult perception of harm, as indicated by...	

¹ The short-term outcome for the awareness campaign is an assessment of the campaign's reach and dose. While this may sometimes be considered a process measure, this is a hard-to-reach population where change will require adequate message saturation and time for the message to take root. Increases in perception of harm then becomes the intermediate outcome that logically follows demonstration of adequate reach and dose.