

Prescription Drug Monitoring Program Center of Excellence at Brandeis

Notes from the Field

NF 3.2 Project Lazarus: Using PDMP Data to Mobilize and Measure Community Drug Abuse Prevention

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Notes from the Field

Project Lazarus: Using PDMP Data to Mobilize and Measure Community Drug Abuse Prevention

Overview

Begun in 2008 and focused originally in Wilkes County, North Carolina, Project Lazarus coordinates community-based drug abuse prevention in response to high rates of overdose deaths, many from prescription opioid abuse. Project Lazarus combines a number of prevention approaches, including use of prescription history information collected by North Carolina's prescription drug monitoring program (PDMP) to motivate, guide and track its prevention efforts. Understanding how medical provider use of PDMP data can facilitate safe prescribing of opioids and reduce their diversion has made increased provider participation in the PDMP a goal of prevention efforts. Increased PDMP participation in Wilkes County may in turn be a factor in the decline in prescription opioid overdoses in the county since the inception of Project Lazarus. This suggests that integrating use of PDMPs into community prevention efforts holds promise as a drug abuse prevention strategy.

Project Lazarus

In order to address high rates of drug overdoses and deaths in North Carolina, many due to the abuse of prescription opioids, in 2008 Project Lazarus initiated a comprehensive, community-based drug abuse prevention program starting in Wilkes County (www.projectlazarus.org). The program, which is expanding its efforts statewide, includes coalition-building, data collection and monitoring, education of medical care providers on safe prescribing, school-based drug education, and the distribution of naloxone to help prevent overdose fatalities. Project Lazarus coordinates these activities in collaboration with community organizers, local government, hospitals, law enforcement, the state's Medicaid authority, schools, and state public health and mental health agencies.¹ This comprehensive approach includes expanding access to effective forms of substance abuse treatment, modifying hospital emergency department policies on dispensing pain medicines, support groups for pain patients, and one-on-one education of physicians on managing chronic pain using toolkits developed by the community.

Results in Wilkes County are striking: overdose deaths declined 69% from 2009 to 2011, even as prescribing for opioids remained nearly level and higher than the state average (Figure 1). Hospital emergency department admissions in the county related to the misuse and abuse of drugs declined 15% from 2009 to 2011, while statewide these

¹ Others participants include doctors and nurses, social workers, clinic directors, non-profit groups, social service providers, substance abuse treatment providers, and university researchers.

increased 7%. In 2011, no opioid prescriptions written by Wilkes County prescribers were involved in any opioid-related deaths of county residents (Figure 2). These data suggest that Project Lazarus played a key role in reducing the diversion and abuse of prescription opioids within the county, but without inhibiting the legitimate use of these medications. Replicating the success of Project Lazarus in other jurisdictions depends on understanding the factors and mechanisms involved in reducing prescription drug overdoses, and how Project Lazarus helped to facilitate this reduction.

Using PDMP data to mobilize community drug abuse prevention

In its prevention efforts, Project Lazarus makes extensive use of prescription history data collected from pharmacies by North Carolina's PDMP, the Controlled Substances Reporting System (CSRS), operated by the North Carolina Division of Mental Health, Developmental Disabilities and Substance Abuse Services. Presentations to community groups include charts showing data on the prescribing of controlled substances, numbers of individuals meeting thresholds of possible questionable activity (e.g., doctor shopping), rates of prescriber and pharmacy enrollment in the CSRS, and overall characteristics and utilization of the CSRS system. Data are also presented on adverse health outcomes related to prescription drug diversion and abuse: overdoses, deaths and emergency room and hospital visits. Prescription and health outcome data are shown for the county in which the presentation is being made, for surrounding counties, and for the state as a whole, so attendees can see how their county compares on these measures.²

Comparing PDMP and health outcome data reveal that while there may be a general linear association between opioid prescribing and overdose at the state level, many counties with high prescribing of opioids have low overdose rates and some counties with high overdose rates have low prescribing (Figure 3). There are a host of contextual factors in each community that explain patterns of prescribing and misuse that need to be addressed in order to effectively reduce overdose deaths. For example, CSRS data show that the counties with the highest prescribing of opioids are also the most rural and have higher poverty rates. Experience from Project Lazarus as it expands statewide reinforces the observation that each community is unique, but there are a set of common strategies that can be deployed to control the drug abuse problem. It also shows the power of PDMP data, when combined with additional information, to address the question that most likely brings people to community forums: what can be done to mitigate prescription drug diversion and misuse?

One source of the diverted prescription medications that contribute to the drug abuse problem is doctor and pharmacy shopping: receiving multiple simultaneous and medically unnecessary prescriptions. Evidence suggests doctor shopping can be

² A video excerpt of a community forum where similar data were presented is available at <http://projectlazarus.posterous.com/73852539>.

reduced by prescriber and pharmacist participation in a PDMP.³ By viewing a patient's prescription history from the PDMP indicative of possible doctor shopping, medical providers are prompted to address what might be drug abuse or diversion, making sure a patient receives only medically warranted prescriptions, and referring patients to specialists or initiating addiction treatment when appropriate. Increasing local registration in and use of a PDMP is therefore a logical goal of community efforts to prevent diversion and abuse of controlled substances.

During a review of the purpose and functions of the CSRS, meeting attendees are apprised of these facts, and so are motivated to take steps to increase local participation in the CSRS. Attendees are shown past and current rates of registration in CSRS for the county and the state overall; for instance as of February, 2011 56% of prescribers in Wilkes County were registered, compared with 21% in the state overall (Figure 4). Increasing the rate of PDMP enrollment can become a concrete, feasible objective for local drug abuse prevention stakeholders. Encouraging providers to actually make use of PDMP data in their practice is another.

It should be emphasized that utilization of the PDMP is just one contributing, and therefore partial, solution to the complex social problem of prescription drug abuse. In order to effectively mitigate the risks associated with prescription opioids in a sustainable way, the Project Lazarus experience suggests that physicians and communities must be empowered to develop a mix of interventions that are appropriate for their setting, including encouraging the use of PDMPs.

Tracking intermediate prevention outcomes

In addition to suggesting steps to reduce prescription drug abuse, PDMP data can help track their effects, an essential element in guiding and justifying prevention efforts. As noted above, the CSRS provides data at community meetings on the rate of provider enrollment in the PDMP, an increase in which is a necessary first step toward its increased utilization. Whether a target rate of PDMP enrollment is met by a certain date is easily measured, making it a clear, and often achievable, intermediate prevention goal. Provider use of a PDMP, for instance how often PDMP reports are requested or downloaded, can also be tracked.

At community forums, CSRS data are presented on the number of individuals who meet thresholds for possible doctor shopping: those who received a controlled substance prescription from 10 or more prescribers and 10 or more pharmacies in a 6 month period (a 10+10 threshold) and those meeting a 15+15 threshold. For example, the number of

³ For example, see the PMP Center of Excellence (COE) reports "Trends in Wyoming PMP Prescription History Reporting: Evidence for a Decrease in Doctor Shopping?" and "Nevada's Proactive PMP: The Impact of Unsolicited Reports," available at <http://www.pmpexcellence.org/content/notes-field-0>, and the COE Briefing on PMP Effectiveness, at http://www.pmpexcellence.org/sites/all/pdfs/pmp_effectiveness_brief_revised_3_29_12.pdf.

those in North Carolina meeting the 10+10 threshold for Schedules II-IV declined 43% from 2008 to 2011 (Figure 5). Such declines suggest that participation in CSRS by medical providers, and perhaps other factors such as prescriber education, is affecting their prescribing and dispensing practices, making it less likely that individuals will receive medically unnecessary prescriptions. This in turn may reduce the amount of diverted and misused prescription drugs, eventually contributing to fewer overdoses resulting from drugs obtained through these means. By providing data on rates of possible doctor shopping, the CSRS tracks an important intermediate outcome of community efforts to increase provider utilization of PDMP data and educate them on safe prescribing and dispensing.

As prescribing and dispensing patterns changed from 2008 to 2011, Wilkes County experienced a reduction in prescription drug overdose deaths; deaths decreased 69%, from 31 in 2009 to 11 in 2011. During this period CSRS data show that county residents who died from overdoses received fewer and fewer opioid prescriptions from county prescribers: in 2008 82% of the 28 overdose fatalities received such prescriptions but by 2011 none of the 11 fatalities had received them (Figure 2). County prescribers, perhaps as a result of viewing and applying PDMP data in their practices, as well as their education on safe prescribing, became less likely to prescribe opioids to residents with drug abuse problems that put them at risk of overdose. This change in prescribing behavior likely contributed to the decline in county resident overdose deaths.⁴

Conclusions

As seen above, Project Lazarus makes extensive use of CSRS data in community presentations and in monitoring its prevention efforts. Prescription history information helps to 1) describe conditions relevant to the prescription drug abuse problem, 2) motivate action to increase utilization of the PDMP, and 3) track intermediate outcomes that have likely contributed to success in reducing overdoses.

It seems probable that Project Lazarus's prevention efforts in collaboration with CSRS helped to reduce prescription overdoses in Wilkes County. Outreach to the community, including medical providers, raised awareness about how a PDMP can assist in reducing diversion and improving safe prescribing; increased enrollment in and use of CSRS gave county medical providers critical information about individuals at risk of overdose; this information enabled providers to take appropriate action with respect to those individuals. A combination of factors, including other Project Lazarus initiatives such as aggressive and on-going community awareness and involvement, medical provider education, distributing naloxone kits to patients at risk of an opioid overdose, training their families and peers to recognize and reverse an opioid overdose, and expanding substance abuse treatment options, all helped in reducing overdose deaths in Wilkes

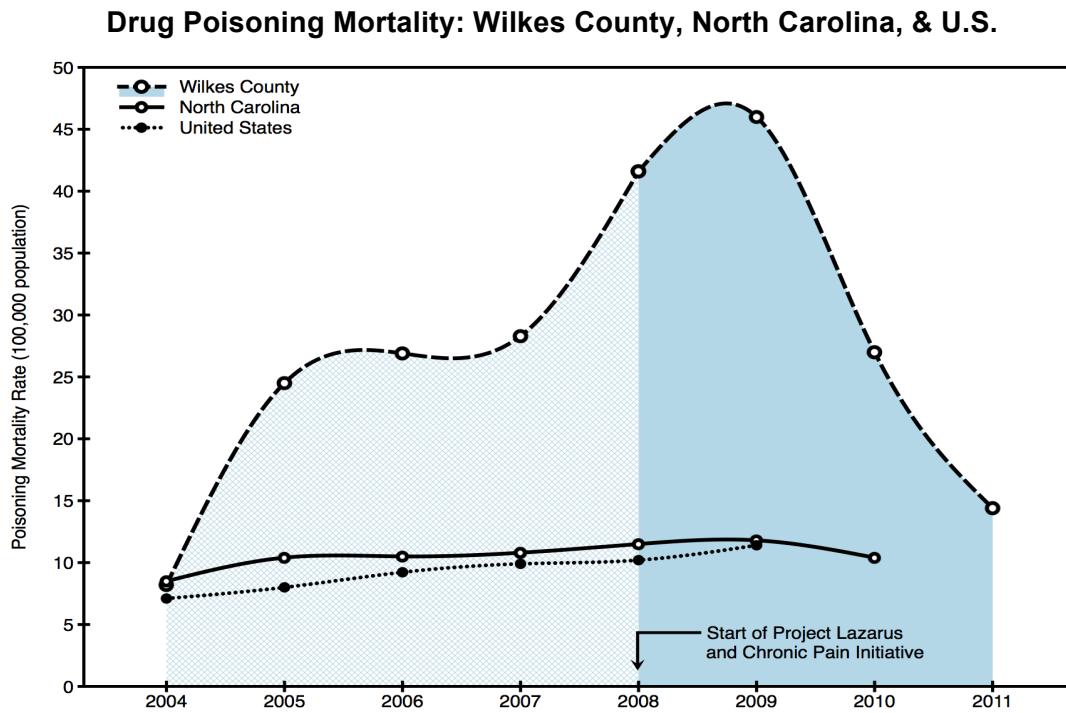
⁴ That Wilkes county decedents in 2011 continued to receive medications from outside the county that may have contributed to their deaths speaks to the importance of extending Project Lazarus initiatives statewide.

Project Lazarus

County. However, it is likely that the improved prescribing, dispensing and patient care made possible by the use of CSRS data played a role by helping to ensure that prescribed medications were more often used only when medically necessary.

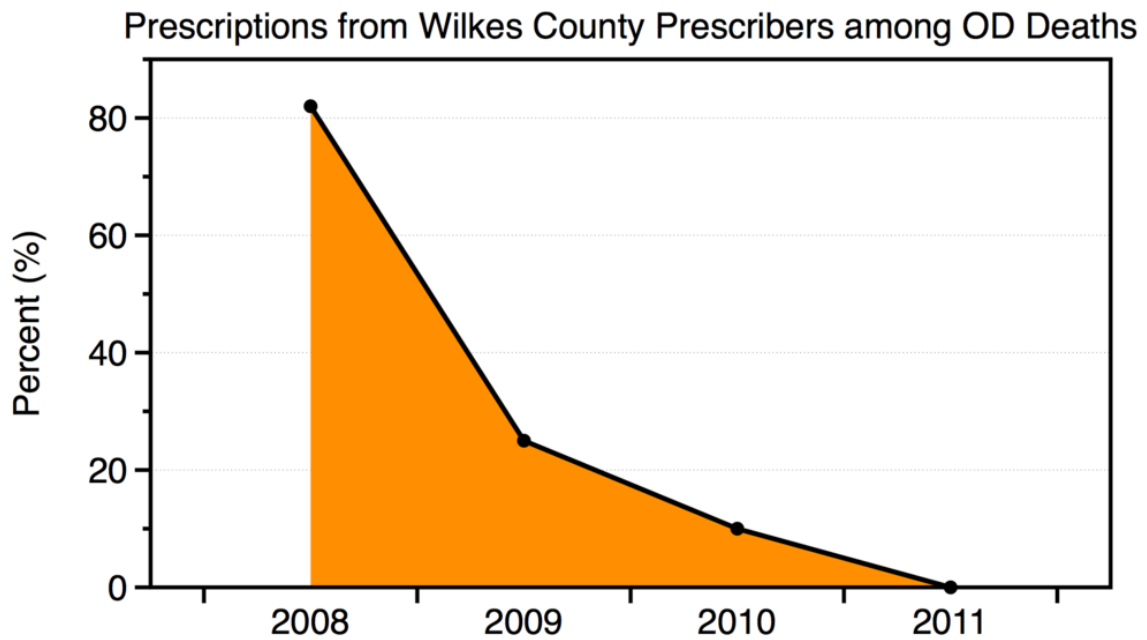
Note: For inquiries concerning this report, please contact the PDMP Center of Excellence at Brandeis at www.pdmpexcellence.org or call 781-736-3909.

Figure 1



Source: Project Lazarus, <http://www.projectlazarus.org/project-lazarus-results-wilkes-county>

Figure 2



Source: Project Lazarus, <http://www.projectlazarus.org/project-lazarus-results-wilkes-county>

Figure 3

Opioid Prescriptions and Overdose Deaths by County, North Carolina

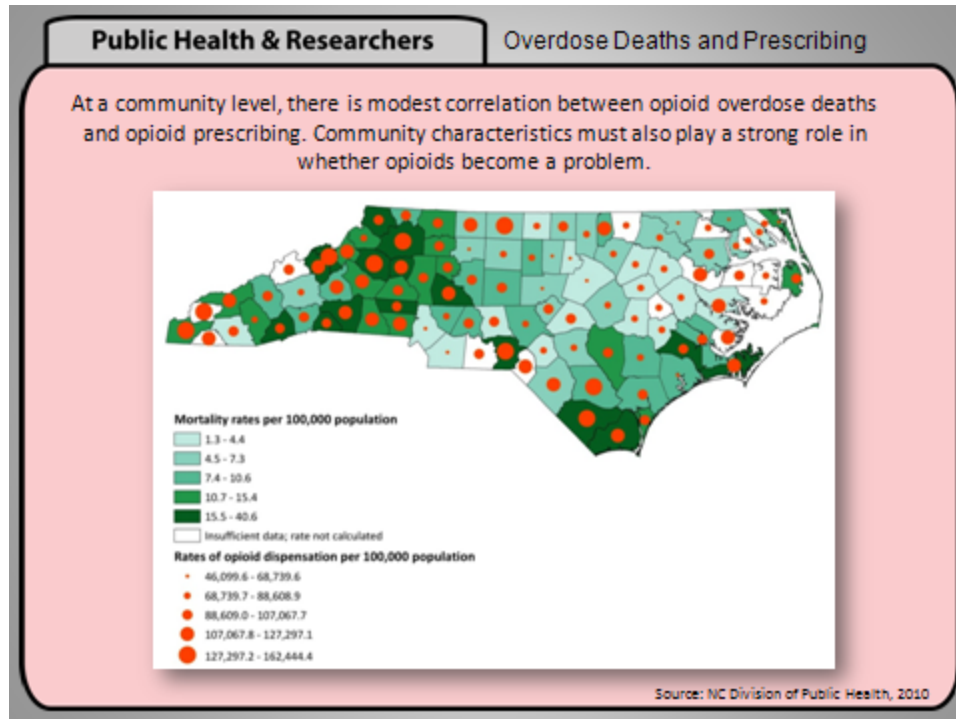


Figure 4

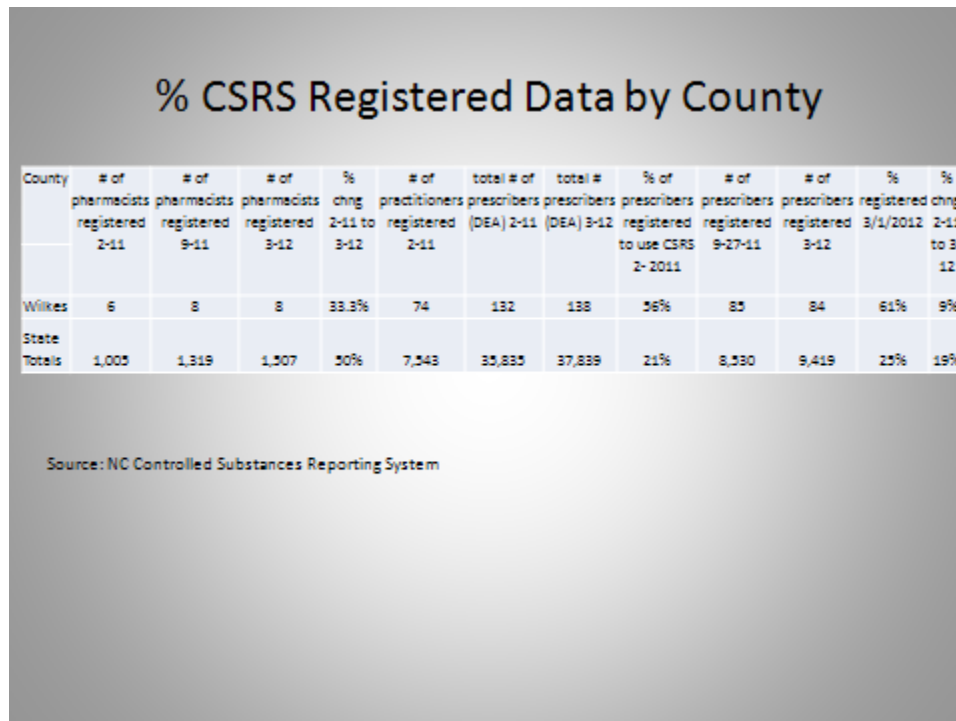


Figure 5

