

Unintentional Poisoning by Legal Medications Report on the 2008 Annual Symposia Pennsylvania Department of Health Violence and Injury Prevention Program

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Purpose of Symposia:

The Pennsylvania (PA) Department of Health's (DOH) Violence and Injury Prevention Program (VIPP) is in a strategic planning process to develop into a larger, stronger, more effective agent for reducing the burden of injury on Pennsylvanians. In August 2005, the DOH received a five year grant from the Centers for Disease Control and Prevention (CDC) to bolster its efforts to prevent and control injuries and injury-related deaths in Pennsylvania. The Department's intent was, and continues to be, to use the CDC grant to assess the social and economic burden of injuries in Pennsylvania; to prepare an annual injury data report; to develop a comprehensive injury prevention and control plan for the Commonwealth; and to hold annual injury symposia.

A multi-agency group of injury stakeholders from around the state have been meeting over the past three years as the Injury Community Planning Group (ICPG). The ICPG mission is to develop a comprehensive and coordinated injury prevention effort which will guide Pennsylvanians to prevent injuries and violence across the lifespan by empowering state and local partners through the collection and analysis of data and the leveraging of resources for violence and injury prevention programs to recapture lost human potential. The ICPG has identified three main injury topics that are a great burden on PA's population: motor vehicle crashes, falls and unintentional poisoning.

The VIPP has not been involved previously in efforts to prevent poisoning of any kind, yet poisoning is the second leading cause of injury mortality in the state. Of these poisoning related deaths, almost 75 percent are attributed to unintentional drug poisoning. While the previous two symposia were targeted to Managed Care Organizations in year one and community-based organizations and partnerships in year two, the ICPG chose to focus its year three symposia on unintentional poisonings by legal drugs. The information generated from these symposia is being used to guide the VIPP's planning process around preventing unintentional drug poisonings in PA.

The goal of each symposium was to:

- 1. Share data about unintentional drug poisoning morbidity and mortality in PA.*
- 2. Share participant organizations' experiences of efforts to prevent unintentional drug poisoning and abuse of legal medications (both prescription and over-the-counter).*
- 3. Discuss ideas for expanding and improving efforts to prevent unintentional drug poisoning and abuse of legal medications.*
- 4. Identify resources needed from the Violence and Injury Prevention Program on this issue.*

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Five symposia were held around the state (125 participants):

Northeast region: Wilkes-Barre June 27 (20 participants)

Southwest region: Monroeville June 30 (33 participants)

Northwest region: Clarion July 1 (29 participants)

Southeast region: Fort Washington July 8 (28 participants)

North and South Central regions: State College July 17 (15 participants)

Introduction

The 2008 symposia on unintentional poisoning by legal medications¹ were attended by a diverse and very engaged group of participants. There was representation by community-, school-, and hospital-based organizations; hospice nurses; drug and alcohol treatment case workers; pharmacists; academics; researchers; students; health insurance companies; law enforcement; poison control centers; school districts; regional and local departments of health; and child death review team members among others. Each symposium was divided into four parts: the VIPP sharing PA level data on unintentional poisoning; sharing current activities on the prevention of unintentional drug poisoning and prescription drug abuse, brainstorming suggestions for expanding our collective prevention efforts and discussing the resources specifically needed from the VIPP to facilitate the expansion of prevention efforts in this area.

This report summarizes the discussions from all five symposia, presented in the following order:

1. Executive Summary
2. Summary of Pennsylvania Poisoning Data
3. Current Prevention Efforts
4. Suggestions for Expanding Prevention Efforts
5. Suggested Action Steps for the VIPP
6. Additional Resources on Unintentional Drug Poisoning

¹ The terms medication and drug are used interchangeably in this report.

Executive Summary

Symposia participants shared current efforts and suggested new or expanded efforts to reduce unintentional poisoning by legal medications. There are significant roles for both healthcare professionals (pharmacies/pharmacists, healthcare providers, health insurers, poison control centers, hospitals, public health groups) and the community (schools, senior service providers, community groups) to address the aforementioned issue. Participants discussed current and future efforts that address both halves of the unintentional drug poisoning issue: drug abuse (people who are intentionally abusing prescription medications, but who did not intend to overdose) and medication misuse (mistakes or errors in the prescribing or taking of medications that lead to overdose—the most frequent example is senior citizens who confuse amounts or labels of prescriptions and take too many or the wrong combination of medications).

There are already many ways in which symposia participant organizations are currently addressing this issue. Most of these efforts could be categorized as *educational*, including efforts to educate pharmacists, physicians, nurses, teens, seniors, patients and school students on safety in prescribing and taking prescription medicines, along with issues of abuse and addiction. Other current interventions, categorized as *behavioral*, include efforts to improve inter-provider communication and coordination in ways that reduce the likelihood of error and patient manipulation of providers; efforts to target high-risk patients (like adults and teens who have a history of substance abuse and seniors recently discharged from inpatient settings); and community-based overdose prevention efforts (There are several of the latter in the Pittsburgh area working with drug abusers to promote use of Naloxone for narcotics overdose, increase providers' screening for substance abuse and improve public awareness of drug overdose deaths).

Environmental interventions that address physical availability of prescription medications and the likelihood of misuse or abuse fall into two categories: *programs to protect prescription medication distribution* and *efforts to increase safe disposal of extra medications*. *Efforts to protect prescriptions* include insurer-based controls on how certain drugs can be prescribed, pharmacy controls on physical access to certain medications and efforts to write prescriptions in ways that they are less easily manipulated (safety prescription pads, sending prescriptions electronically). The Institute for Safe Medication Practices works with pharmaceutical companies to modify medication labeling and naming so that they are less easily confused or misread. Some hospitals use bubble packs of medications to help patients who become easily confused or struggle to keep track of medication usage. *Medication disposal* can decrease the overall supply of prescription medications in our homes, where many prescription drug abusers access their drugs. Some disposal efforts target seniors and their families by having seniors return unused medications to senior activity centers or by having hospice nurses dispose of leftover medications after the death of a patient. There are also a few community-based medication disposal pilot projects that target the general public.

Suggestions for future efforts can also be categorized as *behavioral* and *environmental*, although most of the environmental suggestions address the social environment more than the physical environment. Again, most of the suggestions for behavioral interventions are *educational*. Expanded provider education should focus on two main topics: 1) the nature of addiction and strategies for providers in preventing and treating substance abuse among patients, and 2) the importance of the provider's role in communication with both pharmacists and patients about prescriptions (how to write safer, less

modifiable prescriptions, and strategies for avoiding misunderstanding with patients about their medication regimes). Expanded education with the general public should focus on the following messages: prescription drugs can kill, get all medications checked regularly—especially seniors; use pill dispensers; safeguard medications from theft and abuse; take medications only as prescribed; do not share medications; dispose of unused medications (and how to do that safely); ask questions of your provider until you understand all medication related instructions. There should also continue to be education that focuses specifically on teens and their families. School-based drug and alcohol education should include information about prescription medications. Families of adolescents should be targeted with messages about the extent of the prescription drug abuse epidemic and how grandparents can protect medications from being diverted by teens for abuse.

Many suggestions address the need for *social environment* changes, either through social norms or policy efforts. One suggestion is to work on changing the culture around how patients use the healthcare system and medications—moving towards a culture that encourages patients to use a single provider and not to rely on a pill to solve everything. Another suggested change to healthcare culture is to integrate prevention and response to drug poisoning and overdose into primary care rather than relying exclusively on referral to substance abuse specialists. This cultural change would involve providers taking full medication and substance abuse histories, encouraging more follow up with patients after they leave the office or are discharged from an inpatient setting to monitor medication use, and notifying providers of the medications involved in overdoses in their community.

The last major kind of suggestion is to improve *surveillance and monitoring systems* of prescriptions to identify patients and providers who may be abusing the system to get access to prescription drugs of abuse. Three different surveillance systems were discussed: expanding the PA prescription drug monitoring program so providers can use it to identify any schedule 2 drugs a patient had been prescribed anywhere in the state, utilizing the Medicaid and Medicare databases to identify patients and providers who may be abusing the system, and working towards a centralized electronic medication database.

Symposia participants recommended the following action steps for the VIPP:

1. Coordinate information:
 - a. Follow up from symposia with next steps.
 - b. Be a repository for educational information on this topic.
 - c. Identify what other states are doing in this area and make that information available.
2. Develop and distribute resources:
 - a. Develop and distribute fact sheets, handouts, PowerPoint slides.
 - b. Distribute CDC materials
 - c. Design public service announcements that community-based organizations can use in their areas (print, audio, and video--Make them catchy!)
3. Facilitate provider educational efforts:
 - a. Messages to emphasize:
 - i. Nature of addiction.
 - ii. How to identify and deal with prescription abuse.
 - iii. Talk to patients about prescription medications more (what they are for, what the risks are, how to store and dispose of safely).
 - iv. Follow up with patients on prescription medications in a timely fashion.

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- b. Present to county medical societies.
- 4. Provide funding:
 - a. Make mini-grants available on unintentional poisoning via State Health Improvement Partnerships and/or SafeKids

Summary of Pennsylvania Poisoning Data²

Poisoning Fatalities

- The poisoning death rate in PA rose 32.7 percent from 2000 to 2004. By 2004 unintentional poisonings were the second leading cause of injury death.
- The vast majority of poisoning deaths during 2000-2004 occurred among those aged 20-54 years. They accounted for 5,694 or almost 86 percent of the 6,646 deaths reported over that five-year period. In 2005, poisoning surpassed motor vehicle crashes as the leading cause of unintentional injury death for adults aged 25-45 years.³
- The average annual age-adjusted death rate due to poisoning for males was 2.4 times the rate for females during the period 2000-2004.
- Poisonings can be unintentional, intentional, or of undetermined intent. Among these categories, unintentional poisonings are by far the greatest cause of poisoning mortality and the only one of the three categories that has risen between 2000 and 2004. Most poisoning deaths in PA (74.6 percent) are attributable to unintentional drug poisonings. The number of unintentional drug poisoning deaths increased almost 43 percent from 2000-2004.
- About 27 percent of the deaths due to unintentional drug poisoning were attributed to narcotics and hallucinogens that include heroin, opioid analgesics (e.g. oxycodone), and cocaine.
- Five counties (Allegheny, Cambria, Lackawanna, Luzerne, and Philadelphia) had average annual age-adjusted death rates for 2000-2004 that were significantly higher than the corresponding state rate.

Poisoning Hospitalizations

- The poisoning hospitalization rate in PA rose steadily from 2000-2004. In 2004, there were 15,374 hospital discharges from poisoning injuries were reported in Pennsylvania.
- Charges associated with these hospitalizations totaled more than \$303 million. The median charge for a poisoning injury hospitalization was \$9,438 (mean = \$19,744). Government payment sources were responsible for more than \$206 million, about 68 percent of the total hospital charges.

² Unless otherwise noted, all data are from Trong T, Weiss HB. Poisoning Injuries in Pennsylvania (2000-2004). Pittsburgh, Pennsylvania: Center for Injury Research and Control (CIRCL), Department of Neurological Surgery, University of Pittsburgh, 2007.

³ Centers for Disease Control and Prevention, National Centers for Injury Prevention and Control. Web-based Injury Statistics Query and Reporting System (WISQARS) [online]. (2005) {cited 2008 July 16}. Available from: www.cdc.gov/ncipc/wisqars

Current Prevention Efforts

Symposia participants shared a wide variety of current initiatives in PA that affect the issue of unintentional poisoning by legal drugs, whether the initiative has this issue as its specific target or not. The efforts are listed here, organized by kind of organization.

PHARMACY

- Policies, legislation, and regulations that influence pharmacies and pharmacists
 - New regulation by State Pharmacy Board in process to require that 2 of the 30 hours of continuing education credits that pharmacists must receive every other year should be on medication safety.
- Efforts to increase the role and power that pharmacists have in making decisions about prescriptions:
 - 2006 PA Drug Therapy Management Act—Pharmacists in hospitals can therapeutically change prescription without going through a physician first.
 - House Bill 1250 (pending)—Extend the PA Drug Therapy Management Act to pharmacists in practice settings if there is a specific written agreement with a specific physician ahead of time.
 - A group of employers in Pittsburgh is initiating a collaborative effort with a pharmacist to increase the pharmacist’s role in managing prescribing of medications. This will be evaluated at a later time.
- Commercial pharmacy efforts:
 - Measures to facilitate pharmacist-patient communication:
 - Encourage pharmacies to offer “Lunch with your Pharmacist” (share lunch with the pharmacist and then have a one-on-one consultation).
 - Encourage pharmacies to build private consult rooms in pharmacies.
 - Train pharmacists in medication counseling as part of Medicare part D medication management therapy.
 - Controlling access to medications:
 - Use safety caps on medications.
 - Control over-the-counter medications by keeping them out of site (Sudafed and dextromethorphan).
 - Use judgment on over-the-counter requests.
 - Education:
 - Provide drug information with every prescription.
 - Participate in poison prevention week activities.
- Pharmacy schools:
 - Course work:
 - Ethics course
 - Toxicology course
 - Teaching how to screen for drug abuse
 - Teaching about narcotics contracts
 - Community outreach:
 - University of Sciences School of Pharmacy is working on drug disposal. The school has partnered with the Women’s Health Environmental Network to pilot a reverse distribution program in senior centers. Seniors at targeted centers are educated about the dangers of keeping expired or extra medications in the home.

They can bring old prescription medications to a collection site, and the project sends them back to a reverse distributor from there.

HEALTH INSURERS

- Chart review:
 - Review charts, looking for long term opioid use
 - Fraud, waste, and abuse program—Review pharmacy charts to identify problems and then get the medical director to do peer-to-peer interventions with physicians who have problematic prescribing practices.
 - Medicaid and Medicare track patients' use of physicians and pharmacists and if they are doctor or pharmacist "shopping" they are restricted to one physician, one pharmacist, and one hospital.
- Provider education:
 - Have pharmacies write retrospective letters to physicians about patients who are doctor "shopping" that include the patient name, drugs they are taking, and the pharmacies they are using to fill scripts.
- Patient education/support:
 - Educate families of seniors to count their medications.
 - Outreach immediately after hospital discharge along with a better history to better monitor medication use.
- Inter-provider coordination:
 - Coordinate among departments to try to better coordinate patient care and share information that may help identify problems, including patient abuse of prescription medications.
 - Encourage community pharmacists' calling physicians with any suspicious prescription.
- Drug specific controls:
 - Identify seniors who are getting medications that are potentially unsafe (especially darvaset) and talking to their doctors about changing medications.
 - Limit quantities on oxycontin prescriptions and educate physicians about this.
 - Require prior authorization for fentanyl and only allow its use for terminal cancer patients.

NURSES

- School nurses:
 - Talk to students and parents about what medications the students are taking and why.
 - Community forum for 7th to 12th graders that included information on drug abuse and health literacy education (Can students understand and read prescriptions?).
- Home visitation nurses:
 - Follow up in the first week after hospital discharge to support patients with new medication regimens.
 - Target recently discharged seniors and look for any indication of caretakers diverting medications from the seniors to use them for their own recreational use.

POISON CONTROL CENTERS

- Work with State and Territorial Injury Prevention Directors Association to identify a national level agency or group to take ownership of this issue.
- Use hotline as epidemiological surveillance tool.

- Provide professional education with physicians, pharmacists, and nursing students.

HOSPITALS

- State mental hospital:
 - Improve transition to community care after discharge by sending a list of medications with the patient and to the care giver as well as to the county liaison who sends it directly to the psychiatrist in the community who will take over care of that patient.
 - Consumer community support plan—Have a meeting of all current and future care providers for a patient while that individual is still in the hospital.
- Full service hospitals:
 - Review medications at every meeting of rehabilitation classes, and send a complete list of medications to all doctors any time there is a change.
 - Get the pharmacist to dispense medications in bubble packs for patients who have a hard time tracking their medications or who are forgetful.
 - Require pharmacy counseling with certain medications.
 - Follow “frequent flyers” to the hospital and intervene on the topics that keep returning them to the hospital.
 - Emergency department use tamper resistant printer paper for printing all prescriptions.
 - Have two to three levels of locks on prescription pad storage in psychiatric wards.
 - Implement patient education in acute care wards that includes information of taking medications.

PUBLIC HEALTH GROUPS

- Child Death Review Teams:
 - Encourage coroners to do a full pathology (versus stopping once they find one drug or alcohol).
 - Educate teens about the dangers of prescription medication abuse.
- Institute for Safe Medication Practices:
 - Use National Error Reporting System for providers and consumers to report medical errors—used to create awareness of errors.
 - Education efforts:
 - Consumer education website starting in the fall
 - Hard copy newsletter every other week to pharmacies
 - Internet-based newsletters for nurses and consumers
 - Educate providers on putting diagnoses on prescriptions (with electronic scripts, which address privacy issues)
 - Collaborate with pharmaceutical companies on labeling and medication naming to reduce confusion.

SCHOOLS

- Drug and alcohol education:
 - Drug and alcohol prevention specialists in schools do programming in middle and high schools. Most programming includes information on prescription and over-the-counter drugs.

- County Health Departments often do education in preschools and lower elementary on “ask before drinking or eating anything” and the ways in which pills and candy look alike.
- Health curriculum sometimes includes messages on prescription drug abuse, not sharing medications, and health literacy around reading prescription labels.
- Give parent education booklets on drug and alcohol abuse to all parents to facilitate discussions with their children.
- Outside speakers:
 - Teen survivors of abuse and overdose
 - Pharmacists
 - Narcotics special agent
 - Female prisoners
- Use Drug Abuse Resistance Education (DARE) program and other national curricula/programs.
- Student assistance programs:
 - Include over-the-counter and prescription drug issues in staff trainings.
 - Emphasize that students who live with senior citizens in the home have increased access to medications.
 - Encourage student assistance program teams to set up parent programs in the schools where drugs are an issue with information on issues like what behaviors to look for in your teen.
 - Try to incorporate prescription issues in drug and alcohol education in the schools.
 - Train student assistance program teams on referrals for drug abuse among students.
- Student groups:
 - Stand Tall—students against drug and alcohol use
 - “Teens in recovery” group
 - Students Advocating Life without Substance Abuse (SALSA)-a drug and alcohol abstinence student group
- Law enforcement:
 - Police officers in the school
 - Sheriff and drug sniffing dogs in school
 - Search all students’ bags and purses every day and remove all medications
 - Student drug court—Students in the court systems meet with the judge weekly or biweekly to talk about progress and get regularly tested. There is a liaison with the school district. (Another symposium participant commented on the drug court working well.)
- School policies:
 - Medication policies
 - has to be in original bottle
 - only supposed to bring one week at a time (doesn’t often happen)
 - prescription administered by the nurse and over-the-counter administered by teacher or in the office
 - Some schools say parents *should* deliver the medications (but accept medications brought to school by students) and some schools say parents *must* be the ones to deliver any drugs
 - School Health Council plans may include prescription abuse issues if they are a problem at the school.

- Special programming:
 - “Reality tour”—a moving theater production about a child who overdoses on heroin (applicable to other opioid abuse)
 - Window clings that say “Good for you, bad for others”
 - Parent volunteers in the school for a half day every day for anonymous counseling

SENIORS

- Educational programs:
 - “Winter Blues, Arthritis, and Pain Management” (in senior centers)—Discuss how to manage and live with chronic pain with multiple methods, not just medications, and check all medications.
 - Messages include:
 - Use one pharmacist.
 - Ask for a consult with the pharmacist when picking up medications.
 - Use pill boxes.
 - Review drug interactions/side effects.
 - Take all of your medications.
 - Place all medications in locked cabinet or area.
 - Get rid of medications when you are finished taking them.
 - Take all medications to doctor visits.
- Medication disposal:
 - Have hospice nurse help patients dispose of medications by dissolving them in water and then mixing into kitty litter before throwing out.
 - Pilot a reverse medication distribution program in Philadelphia, targeting seniors.
- In home support:
 - Office of Aging waiver programs for services in the home versus in a nursing home gets nurses into the home more and they help monitor medications, setting up weekly or daily medications.

COMMUNITY

- Communities that Care—This is a community-wide initiative to promote positive youth development and prevent adolescent problem behaviors, including alcohol and other drug use, delinquency, teen pregnancy, dropping out of school, and violence.
 - Conducts annual youth survey assessing drug and alcohol use in the community.
 - Guides prevention activity planning, e.g. an annual prevention forum for the public with a speaker on prescription drug abuse, and weekly article in local news on youth risk behaviors.
- Overdose Prevention Project in Pittsburgh:
 - This program started in 2003 targeting heroin overdose. It worked in jails, needle exchanges, and methadone clinics, targeting those who are addicted to heroin. They provide Naloxone (drug administered during an overdose to prevent death) to those who are addicted to heroin or live with those who are.
 - Now they are starting to target prescription opioid deaths by increasing availability of Naloxone, thinking about modeling a North Carolina program through the state medical board that is trying to encourage all physicians to offer Naloxone to anyone getting opioids.
- University of Pittsburgh School of Pharmacy “Every Life is Worth Saving”:

- This is a community-level initiative looking at the impact of overdose and overdose death in Allegheny County.
- The university developed an epidemiological overview of overdose and overdose death in the county, and then had a conference inviting the medical examiner's office, DOH, providers, nonprofits, universities, and others to discuss the data.
- The university is working on several interventions.
 - Work on changing the Good Samaritan Act so that people who are experiencing an overdose or are with someone who is won't be arrested when they call 911.
 - Promote Naloxone use.
 - Promote the use of Screening, Brief Intervention, Referral, and Treatment (SBIRT) by physicians and pharmacists to screen for drug misuse (identifies not just full addiction but any level of misuse). Also, SBIRT will be part of medical student education and possible medical residency training.
 - Public awareness—developing brochures and a prescription take back program.
- Three workgroups were created out of the original conference. This allowed the capacity to look at current efforts, to develop collaboration between organizations, to consider what can be done to expand and improve overdose prevention efforts, and to evaluate all of it.
- Community education:
 - Parent education:
 - The American Academy of Pediatrics has brochures for parents to talk to youth about drug abuse.
 - Prescription drug symposium in Bucks County—This program educates on internet drugs and software to help parents monitor teen internet use (so if they search for oxycontin the parent is notified).
 - Home Safety through Head Start and Women, Infants, Children Program—This program educates parents on the importance of locking up prescription drugs.
 - St. Clair Child Services (including Head Start, etc.)—This program educates parents about child medication safety practices (complete medication protocols, trends in prescription abuse, medication disposal).
 - Pregnant moms group—In this group pregnant mothers who are taking methadone are closely tracked, looking for signs of abuse.
 - Parent education programs for moms in shelters and community youth services—These groups discuss medication disposal.
 - Hazardous handbag—This program educates adults about how the things in an everyday purse or handbag can be dangerous to a child.
 - Look alike pill education—The Philadelphia Health Department sponsors this program, which educates participants regarding look alike pills in prenatal education.
 - Community partnership—This group used data from PA Youth Survey to present to parents in a town hall meeting, including a panel discussion of providers.
 - Child education:
 - Look alike pill education—SafeKids sponsors this program, which educates participants regarding look alike pills in prenatal education. It is presented at the annual Pennsylvania State Farm Show.
 - House of hazards doll house—The DOH presents this program using a doll house to discuss with children dangers in the home, including medications.

- Community task forces on drug and alcohol abuse:
 - Drug awareness task force (county level)—This group is made up of citizens and organization representatives, with a limited number of human service organizations and not much information on prescriptions.
 - County level drug and alcohol junior advisory board for teen input on activities.
 - Some county State Health Improvement Partnerships form a task force on this issue.
- Law enforcement:
 - Drug enforcement agency—This group researches diverted drugs, especially those purchased via the internet. It is really hard to track down who is ultimately responsible, but they are all illegal unless you are sending in your prescription from your doctor.
 - Juvenile Court:
 - Underage drinking and drug program (probation office)—This is a 12-hour class, the curriculum of which includes prescription drug issues. Completion of this class may be offered as an option instead of license suspension.
 - Youth Intervention Program—This is a 9-week course on decision making, life skills and drug and alcohol issues (which includes prescription drugs).
 - Implement or enhance programs in detention centers that includes drug and alcohol education.
- Substance abuse treatment programs:
 - Monitor trends in treatment plans.
 - Medication management with clients in drug and alcohol case management to help them plan taking their medications.
 - Enforce the use of only one doctor, pharmacist, and hospital when Medicaid finds a patient is “shopping” for providers.
 - With patients receiving mental healthcare, work with psychiatrists to track medications for signs of abuse.
- Community human services organizations—These organizations teach consumers (target low and fixed income and homeless populations) to take ownership of their care, ask questions, and actually read information from pharmacists; conduct education about medications and the use of pill boxes; and provide links to mental health agencies.

Suggestions for Expanding Prevention Efforts

Symposia participants suggested many ways to improve our future prevention efforts for unintentional poisoning by legal medications. They are listed here, divided into two groups—efforts aimed at healthcare providers and efforts aimed at the community. This list is comprehensive from the discussion and not prioritized in any way.

HEALTHCARE PROVIDERS

- Changes in how and when to write prescriptions:
 - Teach physicians how to write prescriptions so they cannot be misunderstood or modified:
 - Write out the number on prescriptions.
 - Put the diagnosis and a description of the medication (blue pill) on the prescription.
 - If prn (as needed), write out what prn stands for.
 - Use computers to write prescriptions (fax, e-prescribing, printing on computer paper).
 - Include all generic and brand names on the prescription medication bottle.
 - Clarify changes in the medication or regimen to the patient and all parties involved:
 - If the pills change in appearance, notify the patient on the bottle.
 - Use of samples can confuse patients if it changes the dose or the regimen. Write out the complete regimen when there is a change.
 - Write a prescription for discontinuing medication (creates a clear record for the patient and the pharmacist).
 - Emphasize physician responsibility for error and miscommunication:
 - Create stricter consequences for physician prescribing errors.
 - Emphasize the legal implications of physician/provider communications about medications.
- Improve communication among providers and between the providers and the patient:
 - Change the culture to have pharmacists work more with the doctor and formalize avenues of communication from the pharmacist to the physician. Encourage physicians to be more open and responsive to pharmacist communication.
 - Have nurses be liaisons between the patient/family, the physician, and the pharmacist to facilitate communication.
 - Have a multidisciplinary approach for healthcare students, e.g. have a physician, pharmacist, and nurse manager present in post clinical session with students to model communication between providers.
 - Clarify who does a medical history and medication education—physician, physician’s assistant, nurse, pharmacist.
 - Move toward the “medical home” in which there is a primary care provider who at least knows about all care a patient receives:
 - Specialists should communicate with the referring physician or the primary provider even if not referred—this helps with the “medical home” concept. Also, it might be helpful to encourage physicians to refer more when they need to if they know they will stay in the care loop. Make it standard procedure that physicians ask to send medical records back to the primary provider.

- Encourage the use of care coordinators in provider offices who can do medication education.
- Facilitate collaboration between Alcoholics Anonymous, Narcotics Anonymous, and healthcare professionals.
- Clinicians and pharmacists taking more time with each patient:
 - Clinicians:
 - Get a full medication history, including a history of substance abuse (specify prescription abuse).
 - Continuing education of clinical nurses to include a thorough intake with a medication history, including why the patient takes each medication.
 - Change culture to have patients take all medications to all primary care physician visits (so provider—not necessarily the physician—can check to see how many pills are actually taken).
 - Ask how much of a medication has been taken, not just if it has been taken.
 - Encourage patients to take cards with a complete medication history (like a child’s immunization record) to every doctor visit.
 - Use medication history to guide pain management plans. Is this someone who has required more or less pain medications in similar situations in the past?
 - Improve discharge instructions (from both office/clinics and the hospital):
 - Encourage the use of pharmacists and clinical nurse specialists in physician offices to do office and hospital discharge education, and follow-up on prescription medications.
 - Full discharge education should take place with patient and family. The medications should be explained by every level (prescriber, nurse, and pharmacist).
 - Pharmacists:
 - Need more pharmacists—some that fill prescriptions and some that don’t fill any prescriptions and just focus on patient counseling and education.
 - Pharmacists’ counseling time needs to be reimbursed.
 - Change the culture for the general public on how fast they get a prescription filled—15 minutes to get a prescription filled. Have pharmacists counsel patients on what is in their medications so they know what not to duplicate.
 - Pharmacist should encourage consultation or proactively consult patients.
 - Medicaid could do a demonstration program to require counseling by pharmacists to show effect on abuse and/or unintentional overdose rates.
- Do more follow-up with patients after they leave the office, emergency department, hospital, or jail:
 - Work to improve continuity of care. There isn’t anyone to follow up in the home after discharge from the facility where patients received medication. Expand the role of the home health nurse to not just include sick people visits but also well visits for people in some sort of transition or who need help with medications
 - Have a follow-up plan for every patient and someone to implement the plan.
 - Pay special attention to patients on long term medications, especially if they are on “abuse-able” medications.
 - Improve planning for discharge so the patient can see a primary care provider *soon* and not run out of their medications. Running out of pain med can lead to illegal activities to

obtain pain relief or with inmates, intentional activities that send them back to jail where they will get back on their medications.

- Improve surveillance and monitoring systems:
 - Control and monitor the prescribing of Schedule 2 (S2) medications (controlled substances):
 - Establish a surveillance system for S2 drugs.
 - Expand the PA state prescription drug monitoring program so that physicians and pharmacists can call in for information (e.g., ask whether this patient filled a prescription for a similar drug in the past month anywhere in the state). This would be a helpful for abusers to have their abuse reflected back to them when a provider can call to get this information and then say that they just got that drug filled last week somewhere else.
 - Create a separate certification for physicians to be able to prescribe controlled substances.
 - Limit the amount of pain medications that can be prescribed at one time.
 - Use Medicaid and Medicare databases to find patients and doctors that may be abusing the prescription medication system—(PROMISE™ is a single system that processes human services claims and manages information for numerous Commonwealth human services programs)
 - Create a mechanism for pharmacists and physicians to contact Department of Public Welfare if they suspect a Medicaid or Medicare patient of abuse or pharmacy hopping
 - Centralized electronic medication/pharmacy database (not the whole medical record, just the medication history)⁴
- Create and improve patient information/education
 - Improve information sheets with prescription medications. They have too much information and it is not understandable to the general public.
 - Develop a set of slides that can be used by pharmacists in presentations on this issue (one set for peers and another for the public). These could be developed by pharmacy, nursing, or medical students.
 - Include warnings on medications and addictions in patient education. Train providers to find a balance of information on medications but not scaring patients from taking medications they really need.
 - Create a one page safety sheet on the different classes of drugs of abuse that goes out whenever one is prescribed (at time of prescribing or of filling the prescription). It could have contact information for mental health services
- Expand provider education:
 - Topics for education:
 - Addiction as a chronic illness:
 - Cross addiction (going from alcohol to pills etc)
 - Teaching everyone filling an “abuse-able” prescription to safeguard their medications
 - How to protect prescription pads from theft
 - SBIRT (Screening, Brief Intervention, Referral for Treatment)
 - Referral for pain management and alternative pain management strategies:

• ⁴ Maui Island has a centralized electronic pharmacy database for all pharmacies on the island

- Ways of weaning patients off of opioid pain killers, because if taken off too quickly they will switch to street drugs or start getting them illegally
- Ways of prescribing pain medications that are less susceptible to abuse (e.g. smaller doses)
 - Use of Naloxone to prevent opioid overdose death
 - Chronic care model with follow-up to improve self care among patients with chronic conditions (who may be on long term medications),
 - Medication safety
- Utilize emergency rooms as opportunity for education and prevention (e.g. SBIRT).
- Have a fact sheet with epidemiological data on prescription medication overdose for healthcare providers to give out during the licensure process via the PA Medical Society.
- Make physicians in the community aware of what medications are involved in overdoses. Distribute this information to providers via the hospital or the medical board.
 - What are the teachable moments that providers should look for?
 - They are asked to do so much education on so many different issues.
 - What are the specific risk factors that should trigger them to address abuse?
 - Target families of abusers for prevention efforts. We KNOW abuse runs in families.
- Physical changes to medications and packaging:
 - Get pharmaceutical companies to include Naloxone in opioid analgesics. It doesn't enter the system orally, but if they crush it and try to inject it the Naloxone becomes active and you cannot get high on it.
 - Change how pills are packaged so unused pills could be sold back to the pharmacy (i.e. all in individual bubble packs).

COMMUNITY AND SCHOOLS

- Expand the safe disposal of medications:
 - Educate on recommended practices:
 - Discourage flushing.
 - Throw away medication mixed with an unpleasant substance (coffee grounds, kitty litter) in an unmarked bag or container.
 - Throw away the bottle separately from the medication.
 - Don't throw away prescription bottles until the "good until" date has passed, or remove the label.
 - Can we take extra medications to the vet or donate them to missionary trips?
 - Sponsor reverse distribution events with a central community location where medications can be returned
 - At the semi-annual change of your fire alarm battery, you can also get rid of all old medications.
- Expand awareness in the general public with public service announcements and media advertisements:
 - Suggested messages:
 - Prescription drugs can kill.
 - Get prescription, over-the-counter, and herbal supplements checked regularly. Seniors especially need to have medications checked frequently.
 - Do not change how you take prescription medications without consulting a provider.

- Use a pill dispenser if you take multiple medications.
 - Don't let everyone you know what prescription medications you are taking. By doing so, you can make yourself vulnerable to theft.
 - 1=good, 2 does not =better.
 - Don't take it if it's not for you.
 - Dispose of extra or expired medications.
 - Take all medications as prescribed (prescriptions) or recommended (over-the-counter).
 - Distribute information about over-the-counter and prescription abuse and overdose in hospital and health insurance newsletters.
 - Get popular television shows to take on this issue (CSI, House, Oprah).
 - Get specific celebrities to champion this issue.
- Change the culture around how patients use the healthcare system and medications:
 - Promote the message that it is safer to have all prescriptions filled at one pharmacy and all care coordinated by one doctor (the "Medical Home" and "Pharmacy Home").
 - Get patients to *ask* specialists to send their records back to the primary care provider
 - Change the culture of a pill can solve everything. (American Academy of Pediatrics brochure on drug abuse for parents addresses this subtly.)
 - Change advertising of prescription medications (control the frequency or hours that they can be shown)—Can the CDC work on this?
 - Get patients to *ask* to have diagnoses on the prescription.
- Target high-risk populations:
 - Adults (20-45)-Workplace health initiatives focus on parents in the workplace and college campuses (student assistance programs).
 - Low income-Implement education via Headstart, Keystone Stars (accreditation program for daycare—get to parents), and county assistance offices.
 - Seniors:
 - Develop messages on addiction and medication safety, while not scaring seniors whose fear of addiction keeps them from taking sufficient pain medications.
 - Educate seniors on storage of medications and raise awareness of theft issues. Use senior centers and American Association of Retired Persons to send messages like: protect your medications, be aware of medications as targets for teens, and talk to your physician about medications.
 - Internet pharmacy consumers-Implement community education on legitimate versus illegitimate internet pharmacies.
- Expand drug and alcohol education in schools and include information on prescription and over-the-counter medications:
 - Focus on school districts and superintendants to get drug and alcohol education expanded and improved.
 - Implement peer to peer education with teens (i.e. given by teen survivors of overdose or recovering addicts).
 - Teach teachers how to facilitate teacher guided student discussions around drugs and alcohol versus just lecture. Get the students more actively involved.
 - Have pharmacists give talks in schools on prescription abuse and medication safety.
 - Train student assistance program teams and Students Against Destructive Decisions (SADD) teams on prescription and over-the-counter medication abuse.

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- Media literacy for youth on alcohol could be used as a model for media literacy on prescription and over-the-counter medications.
- Health education in schools should include the long-term health effects of prescription use and abuse.
- Educate families on teen abuse:
 - Implement education via grandparent support groups on the issue of prescription abuse and how to keep their medications from being diverted by their grandchildren (or grandchildren's friends) for recreational use.
 - Raise parent awareness of the widespread abuse of prescription medications:
 - Prescription parties and what they are.
 - Taking account of prescription drugs in your home so you recognize if they are disappearing.
 - Develop materials to help adults and parents talk to teens/children.
 - Encourage family meals.
- Promote patient responsibility for their own care:
 - Educate the public to ask more questions of pharmacists.
 - Change the culture so patients take responsibility for understanding care and going over medication history. Especially among seniors, teach them to question the doctor until they completely understand.
 - Keep a list of medications current and take it to every healthcare provider appointment.
 - Have a 24-hour phone number for patients to call with questions about prescription medications.

Suggested Action Steps for the VIPP

1. Coordinate information:
 - a. Follow up from symposia with next steps.
 - b. Be a repository for educational information on this topic.
 - c. Identify what other states are doing in this area and make that information available.
2. Develop and distribute resources:
 - a. Develop and distribute fact sheets, handouts, PowerPoint slides.
 - b. Distribute CDC materials
 - c. Design public service announcements that community-based organizations can use in their areas (print, audio, and video--Make them catchy!)
3. Facilitate educational efforts:
 - a. Provider education (physicians, nurses, physicians assistants):
 - i. Messages
 - ii. Talk to patients about prescription medications more (what they are for, what the risks are, how to store and dispose of safely).
 - iii. Follow up with patients on prescription medications in a timely fashion.
 - iv. Nature of addiction
 - v. How to identify and deal with prescription abuse
 - b. Present to county medical societies.
4. Provide funding
 - a. Make mini-grants available on unintentional poisoning via State Health Improvement Partnerships and/or SafeKids

Additional Resources on Unintentional Drug Poisoning

Website on parents and prescription drug abuse:

http://www.theantidrug.com/drug_info/prescription_drugs.asp

Parent tips for preventing prescription drug abuse among teens:

http://www.theantidrug.com/pdfs/rxdrugs_otc.pdf

Prevention Point Pittsburgh: addressing disease and mortality among injection drug users, including an effort to reduce overdose death by distributing Narcan (Naloxone):

<http://www.pppgh.org/>

“Every Life is Worth Saving” a community-based effort in collaboration with the University of Pittsburgh School of Pharmacy to reduce overdose and overdose death in Allegheny County:

<http://www.peru.pitt.edu/overdose/index.html>

Project Lazarus is a North Carolina effort to expand the use of Naloxone to prevent opioid overdose death. It is endorsed by the NC Medical Board. There is a link to several articles about it under the “Special Features/Notices” on the NCMB homepage:

<http://www.ncmedboard.org/>

A national strategy document from Australia on preventing heroin overdose which models the different aspects of an overall strategy:

http://www.health.nsw.gov.au/pubs/2001/pdf/herion_overdose_prevention.pdf

This review focuses on the problem of prescription drug abuse with a discussion of facts and fallacies, along with proposed solutions:

<http://www.painphysicianjournal.com/2007/may/2007;10;399-424.pdf>

Resource written by the Northern New England Poison Control Center on what you should know about medication:

http://www.mainehealth.org/workfiles/mmc_services/NNE%20brochure%20May%202008.pdf

Washington State Department of Health information on poisoning and drug overdose:

<http://www.doh.wa.gov/HWS/doc/IV/IV-POI2007.pdf>

A Report on the Troubling Trend of Prescription and Over-the-Counter Drug Abuse Among the Nation’s Teens by the Office of National Drug Control Policy, Executive Office of the President:

http://www.theantidrug.com/pdfs/prescription_report.pdf

CDC PowerPoint Presentation of the Epidemiology of Unintentional Drug Poisonings in the United States:

<http://www.astho.org/pubs/Poison-Paulozzi.ppt>