

Teaching Tweens to be Medicine Wise





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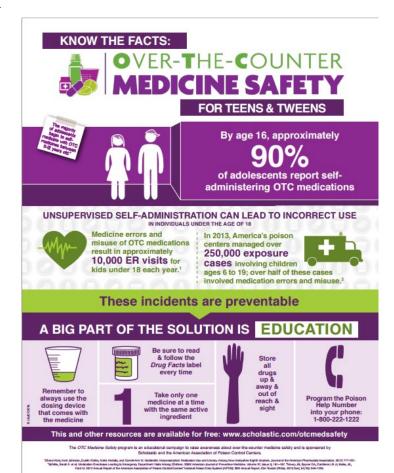
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Brittany Dake

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Agenda

- I. The Case for Teaching Tweens Medication Safety
- II. The OTC Medicine Safety Program
- III. Taking the Program to Communities & Case Study
- IV. Q & A
- V. Group Activity
- VI. Share Out (and prizes!)





About Poison Centers & AAPCC

United States Poison Centers



For more information about poison centers, visit www.aapcc.org.

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About Poison Centers & AAPCC

• Poison Help Line: provides free expert information and treatment advice, 24/7.

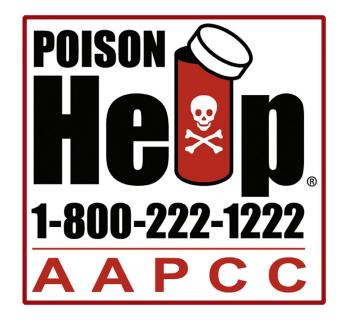
1-800-222-1222

- Cover 100% of U.S. population; 150 languages.
- PCs save American taxpayers over \$1.8 billion in healthcare costs and lost productivity each year.
- PCs provide extensive educational and preventive outreach through educators.
- National Poison Data System (NPDS)—the only near real-time comprehensive poisoning surveillance database in the U.S.



About Poison Centers & AAPCC

- AAPCC is dedicated to actively advancing the healthcare role and public health mission of our members through information, advocacy, education, and research.
- Support member poison centers through:
 - Advocacy Accreditation (centers)
 - Certification (experts)
 - Communication
 - Promotion of local services
 - Public education
- Collate and disseminate national data (NPDS).



In 2015, more than 187,000 cases of pharmaceutical exposures were reported to poison centers involved children ages 6 to 19.

Approximately 10,000 ER visits per year for medicine overdose in persons younger than 18 are caused by adolescents self-administering OTC medicines.



2015 Pharmaceutical Substance Exposures:

Pain Relievers − 11% of all human exposures

Young Children (≤ 6 years) = 48%

Older Children (6-12 years) = 5%

Teens (13-19 years) = 14%

Cough and Cold

Teens (13-19 years) = 14%

Antihistamines

Older Children (6-12 years) = 10%

Vitamins

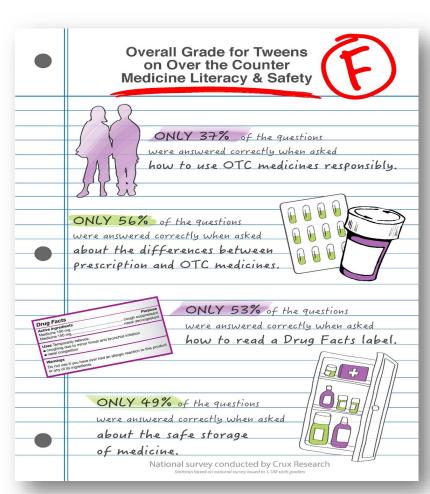
Older Children (6-12 years) = 11%

Topical Preparations

Young Children (≤ 6 years) = 75%



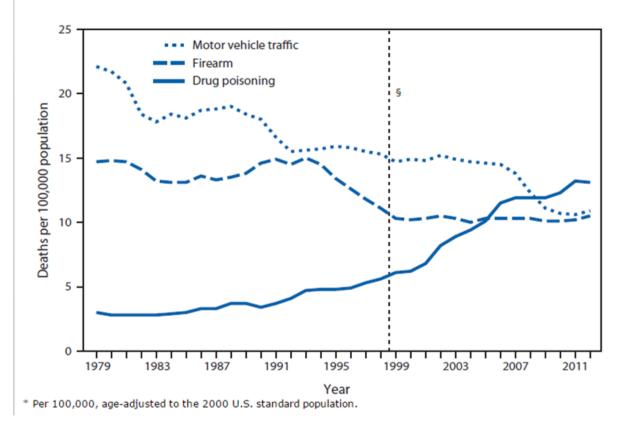
- Research shows that children begin to selfmedicate around 11 years old, or in 5th or 6th grade.
- By 16 years of age, approximately 90% of adolescents report self-administering OTC medications.
- In 2012, 1 in 4 teens reported misusing or abusing an <u>Rx</u> drug at least once in their lifetimes.
- Many think OTC drugs are safer than prescription drugs, but "safer"≠ "safe."



Drug Poisoning is the #1 Cause of Injury Death in the U.S.

QuickStats: Death Rates* for Three Selected Causes of Injury— National Vital Statistics System, United States, 1979-2012

Weekly November 21, 2014 / 63(46);1095



Age-adjusted death rate for drug poisoning more than quadrupled from 3.0 per 100,000 in 1979 to 13.1 in 2012.

CDC MMWR. Source can be accessed at: http://l.usa.gov/1Bq0A9N

Unintentional Poisoning as a Cause of Non-Fatal Injury in the U.S.

Unintentional poisoning is a top 10 cause of **nonfatal** injuries in 7 of 10 age groups.

National Estimates of the 10 Leading Causes of Nonfatal Injuries Treated in Hospital Emergency Departments, United States – 2013

	Age Groups										
Rank	<1	1-4	5-9	10-14	15-24	25-34	35-44	45-54	55-64	65+	Total
1	Unintentional Fall 134,229	Unintentional Fall 852,884	Unintentional Fall 624,890	Unintentional Struck By/Against 561,690	Unintentional Struck By/Against 905,659	Unintentional Fall 742,177	Unintentional Fall 704,264	Unintentional Fall 913,871	Unintentional Fall 930,521	Unintentional Fall 2,495,397	Unintentional Fall 8,771,656
2	Unintentional Struck By/Against 28,786	Unintentional Struck By/Against 336,917	Unintentional Struck By/Against 403,522	Unintentional Fall 558,177	Unintentional Fall 814,829	Unintentional Overexertion 638,745	Unintentional Overexertion 530,422	Unintentional Overexertion 461,114	Unintentional Overexertion 266,126	Unintentional Struck By/Against 281,279	Unintentional Struck By/Against 4,214,125
3	Unintentional Other Bite/Sting 12,186	Unintentional Other Bite/Sting 158,587	Unintentional Cut/Pierce 112,633	Unintentional Overexertion 294,669	Unintentional Overexertion 672,946	Unintentional Struck By/Against 599,340	Unintentional Struck By/Against 444,089	Unintentional Struck By/Against 390,931	Unintentional Struck By/Against 261,840	Unintentional Overexertion 212,293	Unintentional Overexertion 3,256,567
4	Unintentional Foreign Body 10,650	Unintentional Foreign Body 139,597	Unintentional Other Bite/Sting 107,975	Unintentional Cut/Pierce 114,285	Unintentional MV-Occupant 627,565	Unintentional MV-Occupant 526,303	Unintentional MV-Occupant 374,231	Unintentional Other Specified 385,221	Unintentional MV-Occupant 227,620	Unintentional MV-Occupant 197,646	Unintentional MV-Occupant 2,462,684
5	Unintentional Other Specified 10,511	Unintentional Cut/Pierce 83,575	Unintentional Overexertion 93,612	Unintentional Pedal Cyclist 84, 732	Unintentional Cut/Pierce 431,691	Unintentional Cut/Pierce 402,197	Unintentional Other Specified 300,154	Unintentional MV-Occupant 343,470	Unintentional Other Specified 212,168	Unintentional Cut/Pierce 156,693	Unintentional Cut/Pierce 2,077,775
6	Unintentional Fire/Burn 9,816	Unintentional Overexertion 81,588	Unintentional Pedal Cyclist 74,831	Unintentional Unknown/ Unspecified 84,668	Other Assault* Struck By/Against 381,522	Other Assault* Struck By/Against 342,514	Unintentional Cut/Pierce 297,769	Unintentional Cut/Pierce 282,353	Unintentional Cut/Pierce 189,440	Unintentional Poisoning 100,988	Unintentional Other Specified 1,767,630
7	Unintentional** Inhalation/ Suffocation 8,294	Unintentional Other Specified 65,120	Unintentional Foreign Body 63,450	Unintentional MV-Occupant 73,692	Unintentional Other Specified 321,914	Unintentional Other Specified 336,990	Other Assault* Struck By/Against 207,287	Unintentional Poisoning 237,328	Unintentional Polsoning 153,767	Unintentional Other Bite/Sting 90,850	Other Assault* Struck By/Against 1,291,100
8	Unintentional Cut/Pierce 7,139	Unintentional Fire/Burn 52,884	Unintentional MV-Occupant 58,114	Unintentional Other Bite/Sting 64,848	Unintentional Other Bite/Sting 177,665	Unintentional Other Bite/Sting 180,922	Unintentional Poisoning 175,870	Other Assault* Struck By/Against 169,688	Unintentional Other Bite/Sting 97,474	Unintentional Other Specified 86,729	Unintentional Other Bite/Sting 1,174,267
9	Unintentional Unknown/ Unspecified 5,735	Unintentional Unknown/ Unspecified 41,297	Unintentional Dog Bite 43,499	Other Assault* Struck By/Against 62,829	Unintentional Unknown/ Unspecified 163,923	Unintentional Poisoning 180,448	Unintentional Other Bite/Sting 138,410	Unintentional Other Bite/Sting 145,349	Other Assault* Struck By/Against 73,674	Unintentional Unknown/ Unspecified 74,864	Unintentional Poisoning 1,055,960
10	Unintentional Overexertion 4,985	Unintentional Poisoning 32,443	Unintentional Unknown/ Unspecified 35,303	Unintentional Other Transport 35,609	Unintentional Poisoning 152,962	Unintentional Unknown/ Unspecified 129,308	Unintentional Unknown/ Unspecified 106,498	Unintentional Unknown/ Unspecified 110,102	Unintentional Unknown/ Unspecified 67,974	Unintentional Other Transport 68,022	Unintentional Unknown/ Unspecified 819,878

^{*}The "Other Assault" category includes all assaults that are not classified as sexual assault. It represents the majority of assaults.

Produced by: National Center for Injury Prevention and Control, CDC using WISQARS™.



^{**}Injury estimate is unstable because of small sample size.

Data Source: NEISS All Injury Program operated by the Consumer Product Safety Commission (CPSC).

Implications:

- If not equipped with the knowledge and training to make safe choices, mistakes can happen.
- Helps to Develop a healthy respect for medication
- Mitigate risk of error now and lower chance of pharmaceutical misuse and/or abuse later.





The OTC Medicine Safety Program

The Pathway to OTC Medicine Safety Program

FDA's "Medicines in my Home" as Model & Starting Point





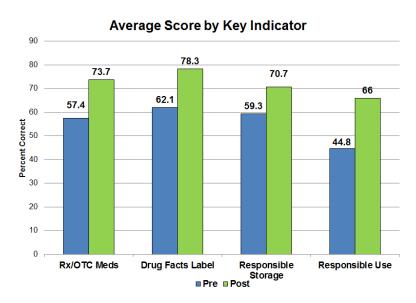
Refined Through Research & Expert Guidance

- Pilot delivered by pharmacists and tested with >1,000 students in Philadelphia/Southern New Jersey
- Evolved with iterative research including qualitative research with teachers, tweens and parents
- Convened a roundtable of experts from over 10 professional societies and consumer advocacy groups to further shape the final *OTC Medicine Safety* program.

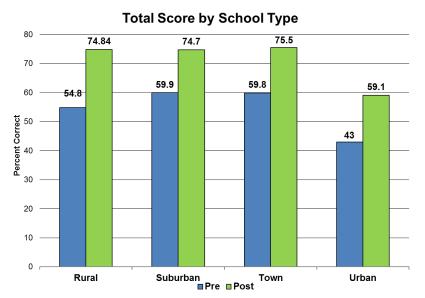
The Pathway to OTC Medicine Safety Program

Finding the Right Partners: Building a National In-School Program

- With the efficacy of the pilot program established, J&J sought to find the right partners to expand the program nationally.
- Enlisted Scholastic and AAPCC as partners: the result was OTC Medicine Safety
- Program evaluated through an IRB-approved research study with over 1,000 5th and 6th students
- Research study showed that program was effective in increasing student knowledge around medicine safety related topics



Students significantly improved from baseline across all lessons of the test (p<0.05)



Differences existed in pre and post knowledge between urban, suburban, town, and rural students, although all locales showed improvements

OTC Medicine Safety Program Components

Program divided into 4 topic areas:

- Rx and OTC medicines
- How to Read an OTC Drug Facts Label
- Safe Storage, Disposal and Dosing of Medicines
- Dangers of Misusing Medicines

OTC Medicine Safety program can be delivered through:

- PowerPoint presentation (Spanish or English) or teacher lesson plans
- Includes a validated pre/post assessment tool

Secondary Objective:

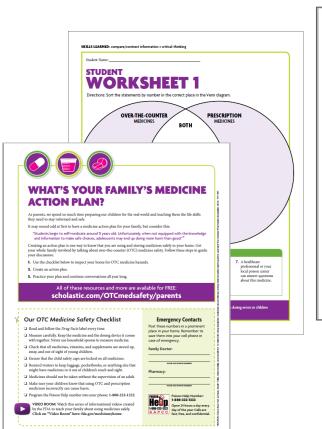
Encourage conversations between children and their parents/caregivers about what they learned about over-the-counter medicines.

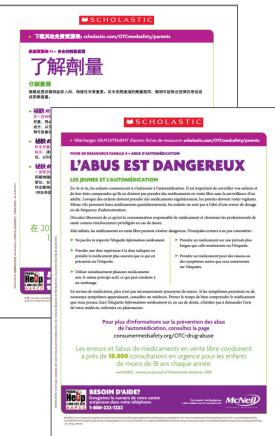


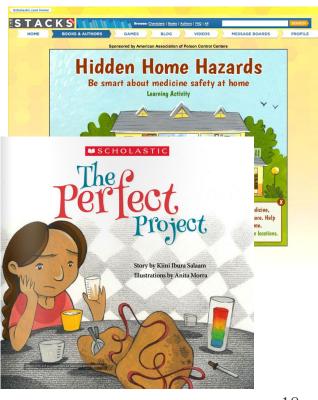
OTC Medicine Safety Program Components

Program is supported by:

- Activity worksheets
- Culminating activities
- Family Resource Guides and Take Home Newsletter (available in <u>6</u> languages)







Supporting Materials for Community Leaders

Guided by the feedback of **over 30 community organizations,** program has since been expanded to enable out-of-classroom learning.

Materials for Community Leaders Include:

- Speaker Guide
- After-School Resource Guide
- Press Release Template
- Fact sheets & Infographic
- Template Letter for School Principal













Thank You. Because of 2016 Forum...

We've made improvements to the OTC Medicine Safety Program







Site Demo: scholastic.com/otcmedsafety

Taking Program to Communities & Case Study

Reaching Communities via CADCA & Coalitions

2015 Program Included:

- Expanding the Reach 4 coalitions piloted new settings outside of schools
- New opportunities included: summer camps, mentoring programs, libraries, afterschool programs, health classes, homeschooling groups

2016 Program Included:

- Expanding delivery methods pilot tested the effectiveness of youth as trainers
- Medicine Safety Youth Educators Pilot enlisted 2
 youth leaders from 18 coalitions to be trained on the
 OTC Medicine Safety Program and return to their
 communities to teach the program to 5th and/or 6th
 graders.



Jefferson County, MO

Community Snapshot

- Located south of St. Louis
- A "bedroom" community
- 224,000+ people in the county with 25% under the age of 18
- 11 different school districts
- Good community collaboration but also very segmented and there tends to be duplication of efforts





Jefferson County Drug Prevention Coalition

Mission: to motivate Jefferson County to change the culture of substance abuse acceptance.

Four Main Priorities:

- 1. Serve as a local resource for drug prevention information
- 2. Decrease accessibility of alcohol to minors
- 3. Increase awareness of safe storage and disposal of medications
- 4. Increase perception of harm of marijuana

How we implemented

- 146 students (6 class periods)
- 4 sessions about 50 minutes each
- Made booklets with some of the OTC images and worksheets. Created a vocab page

Challenges

- Finding a teacher who could allow that much class time
- Having enough students to do it after school

Successes

- 146 students!!
- Able to use coalition money for materials (booklets and certificates for each student)
- The educators received scholarships for teaching this program





Best Practices:

- Utilizing pre and post testing!
- Allowing 40-50 minute "class periods" or sessions
- Stating at the beginning and end of each session that "students should never take medicine without the supervision of a parent or trusted adult"
- Use "trusted adult" vs parent





Tips:

- Have enough activities to do to keep youth entertained but also enough time to teach the program (some class periods finished early)
- Planning and practicing
 - Go over materials with teacher or adult leader
 - Ensure you have all the materials and any technology you might need
- Create a vocab page, poster, or slide



Coalition Customization

Argumentative OTC Writing Assignment

- Persuade someone in the community to have a plan for proper use of OTC medicine
- Have to cite evidence from the OTC program
- Why this is important for community to know
- Ideas of who to write to:
 - Principal
 - Superintendent
 - School Head of Nursing
 - State Representative
 - Health Department Director
 - Doctor

Paragraph Format of Essay

- 1. Attention grabber
- 2. #1 reason why this is important
- 3. #2 reason why this is important
- 4. Counter claims and why they are wrong
- 5. Plan of action
- 6. Thank you and follow up contact info

OTC Writing Assignment

To conclude the Over-the-Counter unit, you will write an argumentative letter about what you have learned. Your letter's goal will be to persuade someone in the community to have a plan for proper use of over-the-counter medication. You will need to introduce the concept of OTC medicine. The letter should cite evidence from the unit and your opinion as to why you think it is important for the community to learn about OTC medicine and the dangers of its misuse. You should write your letter to an individual that could help inform the community of the ideas you outline in the letter. Examples of individuals to send the letter to could be the following: Mr. Shininger, Windsor Head of Nursing Connie Podolsky, Windsor C-1 Superintendent Dr. Joel Holland, State Representative Dan Shaul, and Jefferson County Health Department Director Kelley Vollmar.

Argumentative Letter/Essay Format

Paragraph #1: Introduce the concept of OTC with a hook that will grab the attention of the reader. Effective hooks include the following:

- · Sharing a real story or fictional story on the related topic
- · Statistical information on the related topic
- · A question about the related topic to get the reader thinking
- · A quote from an expert on the related topic

Documents for Parents

Free Medicine Safety Program for I.C. Students

The Intermediate Center is partnering with the Jefferson County Drug Prevention Coalition and Windsor P.R.I.D.E. to offer our 5th-grade students a free, 5-part program to learn about medicine safety, particularly with over-the-counter and prescription medication.

The presentation will be presented by the Jefferson County Drug Prevention Coalition and will be presented by Windsor High School students who are part of the organization's Teen Advisory Board. We will also have snacks and water for any students who attend.

The program is after-school from 3:30 PM to 4:30 PM on the following dates:

- -September 28
- -October 5
- -October 19
- -October 26
- November 2

If you are interested in your 5th-grader participating in this program, please fill out the permission slip below and return it to your child's teacher. If you have any questions, please contact me at 464-4407 or by email at mcarlton@windsor k12 mo.us.

Here is what your student will be able to do after attending the program:

- Identify the differences between prescription (Rx) and OTC medicines.
- Understand the importance of the Drug Facts label and be able to identify its different
- Understand safe storage locations for OTC medicines.
- Understand that using OTC medicines irresponsibly can cause harm.
- Recognize unsafe situations involving OTC medicines and brainstorm solutions using problem-solving skills.
- Identify the Poison Help number (1-800-222-1222) and understand that this free resource is available to support safe medicine use.

Thank you.

Dr. Matt Carlton WIC Principal

permission to stay after school for the Medicine Safety Program on the days listed above. I understand that I will have to provide transportation home for my student. Parent Guardian Signature





Modeled after the FDA's Medicines in My Home program

Did you know that there may be over-the-counter (OTC) medicine dangers in your home that could harm your children?

In class, we've started a new unit called OTC Medicine Safety. As part of our health education studies, this unit teaches students about OTC medicine safety. Open this guide to learn why it is important to inspect your home for OTC medicine hazards and to find easy-to-use tips to make your home safer for your entire family.

Download more FREE resources: scholastic.com/OTCmedsafety/parents



Support for the development of this MCN exhaustion material was provided by



Testimonials

"I don't want this to be the last class we teach, I loved doing this!"

-Brittany Dake, Youth Educator

"All my granddaughter has been talking about the last couple weeks is some medicine safety class. And now she is writing a letter to her doctor about medicine safety."

-Grandmother of one of the students

Q & A

Group Activity & Share Out

Thank You!

Visit Us in the Exhibit Hall!



Visit **Booth 314** to learn more about the *Over-the-Counter Medicine Safety* Program.

Back-Up

Results of OTC Medicine Safety Quantitative Research Study

Methodology

- OTC Medicine Safety program was evaluated as part of an IRB-approved Research Study
- Study included a nationally representative sample of 17 schools and was completed by over 1,100 students
- The OTC Medicine Safety program assessment is a 46-item instrument utilizing mixed rating scales

Findings

- Assessment tool is a reliable and appropriate measure of student knowledge of the *OTC Medicine Safety* program topics. Live presentation at ISOQOL (10/2014).
- OTC Medicine Safety program was shown to be effective in educating 6th grade students on the responsible use of OTC medicines. Won an ISMP Cheers Award for setting a standard of excellence in preventing medicine errors, and accepted for live presentations at ISOQOL, NSC, Safe Kids and ASHA.
- Students significantly improved from baseline across all lessons of the test (p < 0.05)
- Differences existed in existing knowledge and outcomes between urban, suburban and rural students, although all geographies showed improvement.
- Overall, girls and boys were roughly equivalent in most lessons. Girls tended to demonstrate higher baseline scores compared to boys

OTC Medicine Safety Program Proven to Increase Knowledge

SUMMARY

- The OTC Medicine Safety program assessment demonstrates strong psychometric characteristics while successfully discriminating between levels of student knowledge and understanding
- Students significantly improved from baseline across all lessons of the test (p < 0.05).
- Multivariate analyses demonstrate that students improve significantly from this program from pretest however, school setting (location) may impact these improvements
- The OTC Medicine Safety program is an effective tool for increasing OTC-medicine-related knowledge among adolescents.
- By engaging adolescents in the *OTC Medicine Safety* program, adolescents have a positive foundation for developing good lifelong habits relating to the use of medicines, and may decrease likelihood of misusing or abusing medicines as teenagers and adults.
- *OTC Medicine Safety* program won an ISMP Cheers Award for setting a standard of excellence in preventing medicine errors

Sources

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