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“Sharps” are a group of different invasive medical devices, including hypodermic needles, syringes, and lancets.¹ The use of sharps is quite common – approximately 3 billion needles are used a year in the United States, according to the Food and Drug Administration (FDA).² Individuals dealing with conditions such as diabetes, rheumatoid arthritis, multiple sclerosis, HIV, Hepatitis C, Osteoporosis, and infertility use hypodermic needles.

The large numbers of sharps used a year create problems in terms of sharp waste. While many sharps are used at health care facilities and can be disposed of by the facility, some are used at home or even in public places. An increase in sharps being littered in public areas may result, causing “fear and repulsion” in the population at large.³

Another concern is the possibility of needle sticks from improperly disposed of sharps. Disposal can be problematic, since simply throwing sharps in the household trash is dangerous to sanitation workers and to others if trash is spilled or scattered. Although needle sticks mostly happen to nurses in health care settings, about 11% of reported needle sticks annually are disposal related.⁴ While there is a risk of transmission of disease (e.g., HIV/AIDS, Hepatitis B, and Hepatitis C) when needle sticks happen,⁵ the chance of transmission is highest shortly after the sharp has been used, and needle sticks rarely transfer disease to nonmedical individuals.⁶ The medical risk may not be great when it comes to transmission of diseases by needle stick

¹ US Environmental Protection Agency, “Community Options for Safe Needle Disposal,” accessed January 29, 2015, <http://www.epa.gov/osw/nonhaz/industrial/medical/med-govt.pdf>.

² US Food and Drug Administration, “Needles and Other Sharps (Safe Disposal Outside of Health Care Settings),” last modified January 27, 2014, accessed February 9, 2015, <http://www.fda.gov/MedicalDevices/ProductsandMedicalProcedures/HomeHealthandConsumer/ConsumerProducts/Sharps/ucm20025647.htm#fn1>.

³ Luc De Montigny, Anne Vernez Moudon, Barbara C. Leigh, and Sun-Young Kim, “A Spatial Analysis of the Physical and Social Environmental Correlates of Discarded Needles,” *Health & Place* 17(2011):3, 757-66.

⁴ Center for Disease Control and Prevention, “STOP STICKS CAMPAIGN,” last modified June 24, 2011, accessed February 9, 2015, <http://www.cdc.gov/niosh/stopsticks/sharpsinjuries.html>.

⁵ US EPA, “Community Options for Safe Needle Disposal.”

⁶ Montigny et al., “A Spatial Analysis of the Physical and Social Environmental Correlates of Discarded Needles.”

long after the sharp has been used, but most victims of a needle stick will go through costly testing

tips with heavy-duty tape.¹⁰ Minnesota's Pollution Control Agency, in contrast, requests that the clipped needles be taken to collection sites or be eliminated through a mail-back program.¹¹

Disposal Sites

Red biohazard containers are placed in local police stations for needle disposal. Arcadia, Florida in DeSoto County used the police station disposal method, adding the disposal sites to fire stations as well.

Mail Back Programs

The EPA suggests mail back programs where sharps are placed in special containers that are mailed to a collection site for proper disposal. Individual users and community collection sites may utilize this resource, which is effective for rural communities and those that do not have a medical waste collection service. The EPA also recommends scheduled special collection days for sharps, or programs in which customers can call a service to collect their sharps.¹⁸

Massachusetts expanded on the mail back program to include 40 sharp disposal kiosks across the state. These kiosks have collected 1.2 million sharps over the course of three years.¹⁹

In Vermont, there is no statewide universal sharps disposal system. The Vermont Department of Health published guidelines for proper home sharp disposal. According to these guidelines, Vermonters should dispose of sharps in a strong plastic container (HDPE 2) or a container "specifically made for sharps." Multiple sharps can be disposed of in the same container, but it should not be filled to the top. The container should be clearly labeled "DO NOT RECYCLE." Once ready for disposal, the cap should be tightly sealed and covered with strong tape, and then disposed in household trash.²⁰

If a sharp is found on the street, Health Vermont recommends picking up the sharp using heavy

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The two main needle exchange programs in Vermont operate through the Howard Center and Vermont CARES. The Howard Center's Safe Recovery Program offers needle exchange for intravenous drug users. They estimate that about 80 people come to the Chittenden clinic per day to exchange needles.²⁴ The Howard Center also "handles the majority of reported used needle retrievals in Burlington, through direct calls and/or referrals from the See, Click, Fix program and the Burlington Police Department."²⁵ The Safe Recovery Program also

To complement these disposal options, the report calls for outreach and education efforts “to motivate Vermonters to participate in disposing of their prescription drugs.”³⁶

Due to lack of funding, the Vermont Department of Health has not yet implemented the disposal options recommended in the report.³⁷ In the meantime, Vermonters have several options for drug disposal. Since 2011, Vermont has participated in the EPA’s biannual National Prescription Drug Take Back Days, where “expired, unwanted or unused prescription drugs can be dropped off for proper disposal at collection sites throughout Vermont.”³⁸ By 2014, there were 57 different collection locations throughout Vermont.³⁹ Twenty-four permanent drug disposal sites have also been established in law enforcement agencies throughout the state.⁴⁰ In 2014, Vermont collected an estimated 6,700 pounds of drugs from both Drug Take Back Days and the permanent disposal sites.⁴¹ Currently, liquids and sharps are not accepted.⁴²

This report was completed on March 4, 2015 by Megan Noonan, Allie VanSickle, and Jack Vest under the supervision of Professors Jack Gierzynski, Robert Bartlett, and Eileen Burgin in response to a request from Representative Krowinski.

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Disclaimer: This report has been compiled by undergraduate students at the University of Vermont under the supervision of Professor Anthony Jack Gierzynski, Professor Eileen Burgin and Professor Robert Bartlett. The material contained in the report does not reflect the official policy of the University of Vermont.

³⁶ Harry Chen and Barbara Cimaglio, “Statewide Drug Disposal Program in Vermont”, Vermont Agency of Human Services and Vermont Department of Health, accessed February 1, 2015, <http://www.leg.state.vt.us/reports/2014ExternalReports/295885.pdf>.

³⁷ Barbara Cimaglio, Deputy Commissioner of Alcohol and Drug Abuse Programs at the Vermont Department of Health, Personal Communication.

³⁸ Communication Office, Vermont Department of Health, “Vermont to Participate in DEA Prescription Drug Take-Back Day,” Communication Office: Vermont Department of Health, accessed February 1, 2015,