Practice Lab MPH 613: Environmental, Society, Health Morgan Reid April 25, 2022

## Happytown, USA Practice Lab

Happytown, USA is identified as a warm welcoming historic community possessing many positive qualities such as diversity, affordable living arrangements, good academic structures, as well as an abundance of friendly members. This rich diverse community is the home to individuals from various ethnicities and socioeconomic statuses. To individuals outside of the community, Happytown is illustrated as a wonderful location to live; however, concerns regarding sources of lead poisoning persist within the community's traditions and lifestyle.

## Potential Lead Sources in HappyTown, USA

To welcome new residents into the community, Happytown organizes a social event titled Welcome New Residents Day, celebrating the newcomers from all over whom choose to live in Happytown. During this event, there are many activities raising concerns of potential lead sources. One potential lead source is children face painting utilizing the eye cosmetic brand Tiro. Associated with high levels of lead, Tiro eye cosmetics can result in severe lead poisoning in children, a vulnerable population to lead. In addition to face paint at this event, there is the distribution of plastic carnival necklaces, an item in which attracts children. These necklaces can also be a potential lead source as these beads, like Mardi gras beads, hold toxic levels of lead. Another potential lead source is the occupied presence of apartments built between 1940's-1950's as well as the single-family homes built before the 1930's. Typically these homes established during these time periods are developed with lead-based paint, lead fixtures, pipes and smolders, exposing residents to an abundance of lead. Due to the families renovating their historic homes in Happytown, another potential lead source is the removal of old interior and exterior paint. The removal of older paint in these historic homes are considered lead hazards for families and workers due to the lead-based paint that was utilized for the interior and exterior of homes built prior to 1950's. The Fun Fair event organized in Happytown presents children with three popular hand toys including the 18-piece music set, fishing hero set, and critter toys. These children toys reflect another potential lead source as the toys were recalled due to violations of the federal lead content ban. In reference to STEM education, Happytown PTA provides schoolaged children with a free science kit containing various possibilities of inventions. This is identified as a potential lead source due to the kit's contents of the science matters containing magnesium and other potentially harmful chemicals leading to lead exposure. Among these six potential lead sources, the source to impact most people is the lead-based paint inside homes as individuals typically spend the most time inside of their home; moreover, the home is considered a significant source of lead exposure.

## **Practices Affecting Lead Poisoning**

This festive community gathers their members in various ways encouraging their beliefs in connecting residents through fun, social, and educational events. Happytown's tradition of New Residents Day illustrates the extent of the warm welcome and positive environment Happytown portrays. The annual event is emphasizing the community's cultural values in hosting a variety of activities as well as distribution of gifts to excite residents and build on the positivity. These values reflect risks of potential lead poisoning as they are supporting traditions such as face painting, beads, and science kits distribution, all containing lead contaminants. The semi-annual "renovate it yourself" class is an opportunity for residents to obtain tips on the various renovations applicable to their historic homes. This activity is a significant impact on the risk of lead poisoning as it encourages residents to take on their own renovations rather than

Practice Lab MPH 613: Environmental, Society, Health Morgan Reid April 25, 2022

hiring trained professionals. Taking on this role without experience can cause severe hazard to the family occupying the house as renovations begin; moreover, the removal of paint, replacement of windows, installation of pipes, and other necessary renovations will emit drastic lead levels increasing exposure. Another practice in Happytown that risks exposure to lead poisoning is the provision of venison and small game from the Buckshot Buddies Hunting Club. Although collecting this meat is a traditional practice for the club and a town favorite treat, it illustrates a great risk to lead poisoning to many residents in the community. This risk stems from the living animal could potentially be infected with lead when killed with a lead bullet. Serving this meat after killed to the community increases chances of lead poisoning through the community affecting many individuals and families. New Resident's Day, renovation classes, and hunting of community meat are all significant in the development of a lead poisoning education program as they are common practices within the community; moreover, there is a large potential in establishing a program in which the residents can educate themselves on the risks and prevention methods of lead poisoning.

## **Cultural Factors in the Community**

Effectively communicating lead poisoning in the Happytown community is attributed towards the recognition of cultural factors within the society. Due to Happytown's diverse population of residents, it is important to incorporate strategies highlighting various cultures, so the communication of lead poisoning not only reaches various audiences, but also is understood clearly within the community. One recommended risk communication strategy for Happytown is the implementation of graphics illustrating the severity and important of lead poisoning. This method of communication is intended to reach the audience of children as they are identified as the most vulnerable population to lead. Graphics will not only visually appeal to children, but it will also facilitate their understanding of lead in a manner they will be able to comprehend and retain. Happytown is a mix of many ethnicities with white being the majority and Hispanics being the second largest ethnicity group. A recommended communication strategy would be for information regarding lead poisoning to be in English and Spanish. This strategy brings awareness to the cultural differences in language that are within the community as well as provides an opportunity for Spanish speakers to stay informed on lead poisoning and how to avoid it. The increase in families with high financial stability who are renovating their houses need to be educated on the potential hazards. A recommended risk communication strategy for this population would be to distribute information packages regarding the details of the house including the year it was built along with the materials and equipment used to build it. This information package will inform renovators of the possible hazards that are present within the house as well as encourage them to seek professional help to avoid lead exposure.

As Happytown continues to grow its community by welcoming new residents, hosting events, and delivering a positive society, it is important they maintain a safe environment free from lead. To do this, Happytown will need to reevaluate the methods in which the provide social gatherings, ensuring the contents are safe for all ages attending. In addition to social gatherings, it is crucial Happytown spreads awareness of potential lead sourcing in the community. Effective communication regarding awareness of lead sources in Happytown will be dependent on the strategies they utilize in advocating and educating for the variety of cultures that call Happytown home.