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| Plastics Upcycling Solution for Hospitals |
| **Setting/problem**  Hospitals produce tons of plastic waste which end-up in landfills and incinerated in hazardous waste disposal plants which significantly harm the environment and the health and wellbeing of the community. Anthropogenic pollution is undeniable as hospital plastic audits revealed that healthcare waste containing about more than 48% of plastic. Clean plastic used in drugs packaging in hospital rarely been recycled due to the lack of successful action models. This research aimed to examine the opportunities and challenges to address the problem through need-based inter-sectoral partnership and stakeholder engagement.  **Intervention**  Need assessment and process evaluation of plastic waste management in a hospital pharmaceutical warehouse was conducted and analyzed since 2016. Additional cartons were installed for all handlers to place recyclable plastic waste. Cleaners shred all bulky plastics to minimize the volume and be transported to a neighboring recycling station periodically. Some clean plastics were transformed into useful new by-products such as boomerang bag, covers, moneybox, etc.. Informal interviews were conducted to understand the feasibility and challenges during the implementation.  **Outcomes**  In 2016 to 2017, a total of 1.07 metric tons (average of 40kg every month) of plastic waste was recycled and equivalent saving 4.922e+17 amount of dioxin formation in exhaust gasses from an incinerator. Designated plastic recycling bins were placed with a scheduled weekly inspection to monitor the implementation. Problems and challenges in sorting, shredding, temporary storage and transportation has been identified. The project focus on risk communication and stakeholder engagements to facilitate the development and implementing effective and lasting solutions.  **Implications**  The project concludes that significant environmental and economic benefits could be achieved by improving hospital plastic waste handling management. A step-by-step action plan with active participation from each stakeholder is crucial. This should also cover from hospital procurement policy, involvement of health promotion steering committee aiming to reduce the amount of plastics use, stretch out to the collection and sorting of waste requiring efficient logistic arrangement.  **Preferred presentation format**  Oral/ Poster |