Reducing your plastic footprint

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We are coming to recognize, globally, that plastic use is both prevalent and persistent. Microplastics have been found in our environment, our food, and in all walks of life[1]

As the COVID pandemic continues, in addition to the trauma to our medical system, our cumulative efforts to reduce the impacts of climate change and environmental protection have been undone as means to protect ourselves with masks and barriers has relied heavily on plastics and single use items.[2] (Graph 1 Mismanaged Plastics Waste estimates based on per-patient medical waste and reported COVID 19 disease burden)

In this graph we see an extrapolation of COVID 19 burden and medical waste generated per COVID 19 patient on average. This serves to illustrate that in addition to individual effects, institutional forces greatly impact the amount of mismanaged plastic waste accumulated in order to provide care during the pandemic.

Recycling has been one of the most mainstream ways to help individuals return reusable products to a future use, but as the global economy has declined and trade agreements have fallen, more and more recyclable materials are ending up in landfills. [3,4]

Plastics are a convenient way to obtain light and temporary items for common use, and there is an alure that you can send them back in a blue bin to be turned into a new product in the future. Or so you thought. There are 7 common types of plastic on the market, indicated by the number in the recycling symbol. Only 2 types (#1 and #2) are truly accepted in this way; the majority of the other types are not. Tossing an unaccepted type of plastic into the bin that is not accepted in your municipality can lead to a load being considered “contaminated” and sent to the landfill. Overall, only 7-9% of plastic is recycled each year. Of the plastics recycled they don't become the same thing they came in as– a bottle won’t be turned into another bottle, but often polyester fibers. Over time, these products will break down and ultimately end up in a landfill, the oceans, or incinerated, releasing toxic pollutants and decomposing into microplastics. We are now finding them in sea ice and the human placenta. Plastic is derived from fossil fuels (leading to greenhouse gas emissions) and contains compounds such as BPA and phthalates, shown to be endocrine disruptors in animal models.

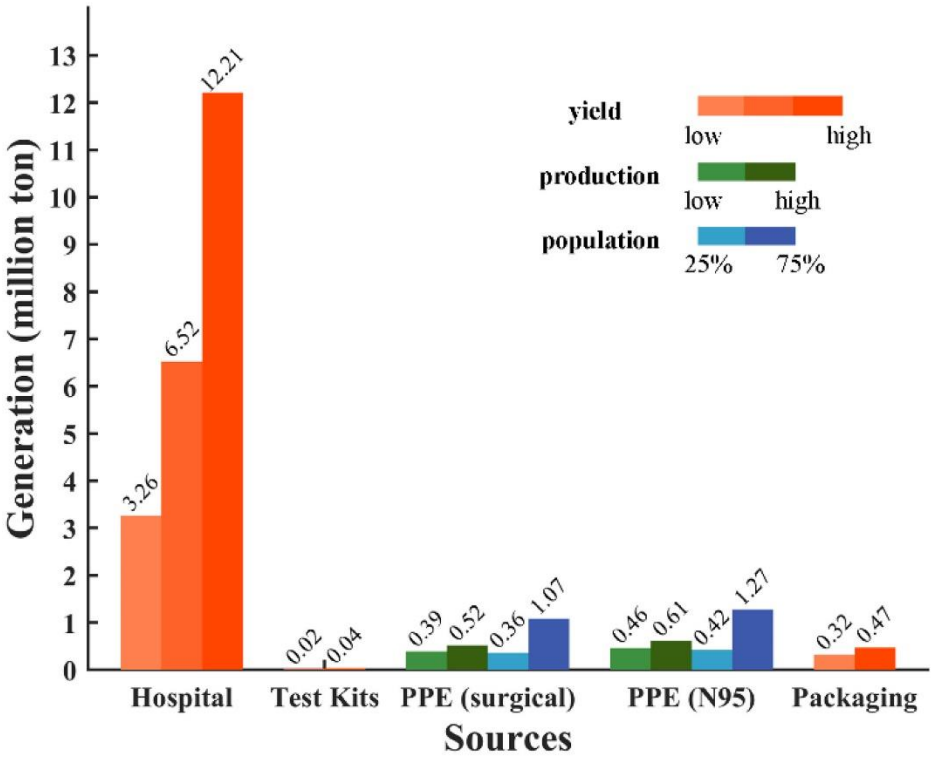
The production of virgin plastic, because it is derived from natural gas and crude oil, contributes to climate change heavily through greenhouse gas emissions. This is the cost of a few minutes of convenience!

With these effects on climate and health, it is essential to create less of a demand for plastic when we can, especially single-use plastics, and dispose of them properly when we cannot.

WHAT TO KNOW, WHAT CAN YOU DO?

You don't have to be a zero-waste champion to have an impact- start small and work your way up. Here is a short list of items you can replace in your daily life which can have big impact, save money, and not make you regret the decision to save the planet!

- Use reusable bags in all stores- not only are you reusing, you are reducing the use of plastic bags. They can hold more, are often made from recycled plastic, and can represent your niche interests!
- Stop using plastic straws, even in restaurants. If a straw is a must, purchase a reusable stainless steel or glass straw
- Don't use plasticware at home and be sure to request that restaurants not pack them in your take-out box.
- Pack your lunch in reusable containers and bags. Also, opt for fresh fruits and veggies and bulk items instead of products that come in single serving cups.
- Reuse/use glass containers for leftovers- salsa or tomato sauce containers work great
- Don't get “to-go” coffee or hot drinks without your own mug. Standard drink lids and cups will live on for over 100 years! The lids and lining are plastic. Bring your own or ask for a ceramic, reusable cup.
- Try to purchase food, like cereal, pasta, and rice from bulk bins and fill a reusable bag or container. You save money and unnecessary packaging.
- Avoid buying processed frozen meals because their packaging is mostly plastic. Even those that appear to be cardboard are coated in a thin layer of plastic. Plus, you'll be eating fewer processed foods!
- Buy bar soap, not liquid body wash. You can reduce plastic bottle waste, plus the emissions from driving the larger, heavier body wash to the store
- Ask your hospital to sign the HHS Pledge to reduce carbon pollution



Title: Mismanaged Plastics Waste estimates based on per-patient medical waste and reported COVID 19 disease burden (Jeng Shiun Lim, 2022)

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