To add a picture background:

1. From the Design tab, Background group, select Background Styles > Format Background
2. In the Format Background dialog box, select Fill > Picture or texture fill > Insert from file
3. Choose a picture from your files and press Insert
4. Close the Format Background dialog box
LANDSPITALI

- Both specialised and general care
- 630 hospital beds
- 94,600 emergency visits
- 341,000 outpatient visits
- 25,400 admissions
- 15,300 surgical procedures
- 3,207 births
- 5,700 staff
- 1,810 tonnes of waste in 2020; Daily 5 tons of waste of which 1.4 tons are recycled.
PROCESS - PLANNING

The audit
9-10th of December 2020
Collected waste from Neonatal and Gastroenterology; general waste, contaminated and plastic.
Excluded other waste streams e.g. paper, cardboard, drinking bottles and metal.
Organising venue, PPE, equipment, waste collection etc.

Project Towards Plastic-Free Healthcare in Europe
PROCESS - DELIVERY

• Collected 48 hrs of waste from 2 wards (grand total 100,28 kg)
• Conducted the audits under two days
• Team of 4 led by Axion advisor
• Examined one stream at a time - offensive hygiene, general waste and recycling

The team:
1. Hildur Hjartardóttir, nurse and projects manager at the procurement department
2. Ingunn Steingrímsdóttir, nurse at the hygiene department
3. Kolbrún Gísladóttir, nurse and quality manager
4. Hulda Steingrímsdóttir, environmental manager
SORT AND WEIGH

Figure 3 - Gloves categorised ready for weighing
Figure 4 - Syringes categorised ready for weighing
Figure 5 - Sorted peel packs
Figure 6 - Sterile wrap categorised for all
# PRELIMINARY RESULTS

Table 1 - Total sample size and mass by department source and waste stream

<table>
<thead>
<tr>
<th>Material Source</th>
<th>Total Mass (kg)</th>
<th>% of Department Sample</th>
<th>% of Total Sample</th>
</tr>
</thead>
<tbody>
<tr>
<td>Neonatal</td>
<td>52.20</td>
<td>52.05%</td>
<td>52.05%</td>
</tr>
<tr>
<td>General</td>
<td>35.50</td>
<td>35.03%</td>
<td>35.06%</td>
</tr>
<tr>
<td>Contaminated</td>
<td>10.80</td>
<td>20.69%</td>
<td>10.77%</td>
</tr>
<tr>
<td>Plastic</td>
<td>5.90</td>
<td>11.30%</td>
<td>5.68%</td>
</tr>
<tr>
<td>Gastroenterology</td>
<td>48.08</td>
<td>47.99%</td>
<td>47.95%</td>
</tr>
</tbody>
</table>

| General         | 33.40           | 33.31%                 |                   |
| Contaminated    | 13.20           | 27.45%                 | 13.16%            |
| Plastic         | 1.48            | 3.08%                  | 1.48%             |

| Grand Total     | 100.28          | 100.00%                | 100.00%           |

---

**Split of Neonatal Sample by Waste Stream**

- General: 45%
- Contaminated: 65%
- Plastic: 11%

**Split of Gastroenterology Sample by Waste Stream**

- General: 69%
- Contaminated: 27%
- Plastic: 14%

---

Table 6 - Top 10 product categories in plastic sample

<table>
<thead>
<tr>
<th>Row Labels</th>
<th>Weight (kg)</th>
<th>Composition</th>
</tr>
</thead>
<tbody>
<tr>
<td>SN3 diaper</td>
<td>5.34</td>
<td>19.3%</td>
</tr>
<tr>
<td>MD2 surgical glove</td>
<td>6.10</td>
<td>19.2%</td>
</tr>
<tr>
<td>MD20 Syringes and accessories</td>
<td>4.24</td>
<td>13.6%</td>
</tr>
<tr>
<td>MD25 Medical bottles and accessories</td>
<td>4.12</td>
<td>12.9%</td>
</tr>
<tr>
<td>PK1 Plastic bag (non-medical)</td>
<td>3.34</td>
<td>10.3%</td>
</tr>
<tr>
<td>PK13 Medical packaging</td>
<td>2.57</td>
<td>7.6%</td>
</tr>
<tr>
<td>MD9 Tubing and accessories</td>
<td>2.17</td>
<td>6.8%</td>
</tr>
<tr>
<td>MD24 Wipes</td>
<td>1.61</td>
<td>5.1%</td>
</tr>
<tr>
<td>MD4 Other medical bag</td>
<td>0.90</td>
<td>2.8%</td>
</tr>
<tr>
<td>MD21 Surgical gown / apron</td>
<td>0.60</td>
<td>1.9%</td>
</tr>
</tbody>
</table>

| Grand Total         | 17.88       | 100.0%      |
FOLLOW-UP MEETINGS - HOW CAN WE IMPROVE?

- Contaminated waste – liquid and follow procedures, follow up meeting and special awareness week at neonatal ward.
- Clear signs of insufficient waste sorting at both wards; paper and plastic in general waste.
- A considerable amount of linen in general waste at gastroenterology.
- Improve waste set up; localization of bins, labelling and other waste streams:
  - Electrical waste was improved.
  - Clearer procedures on collecting of medical residuals.
OTHER USEFUL FINDINGS

General waste

Sorting of general waste can be improved, (contaminated waste, paper, electrical waste and plastic).

Contaminated waste – e.g. insufficient procedures regarding liquids
PROBLEMS & LESSONS LEARNED

- The audits highlighted a variety of waste-related issues beside plastic waste
- Hands-on results and pictures for discussion with employees and other stakeholders (waste service company etc)
- COVID
- The Advisor could not be on site
USING THE AUDIT RESULTS

• Comparison between hospitals – learn from each other – baseline?
• Improve waste planning and sorting at the hospital with follow-up meetings and information to employees
• Engaging stakeholders
• Holding workshops to discuss audit findings
• Engage staff on correct use of gloves
• Develop action plan
AWARENESS CAMPAIGN IN JUNE - ONGOING

Status: Comparing 2019 with the first 3 months of 2021 when covid-19 was almost non existing at the hospital show 62% increase!
ALL READY IMPLEMENTED AT LANDSPITALI

• The laundry distribution center used disposable plastic for the textile trolleys. In 2012 reusable textile protection was made for the trolleys, minimizing plastic waste of 10 ton yearly.

• In 2015 LSH stopped using styrofoam take-away boxes in the catering service (123,000 pieces/year) and offered the staff to buy their own reusable ones.

• All drinking bottles and cans are separately collected because of high deposit fee.

• Stopped using single use plastic glasses in 2017

• No plastic disposables at the catering service – to be revised.

• Reusable food trays and items for patients
To add a picture background:

1. From the Design tab, Background group, select Background Styles > Format Background
2. In the Format Background dialog box, select Fill > Picture or texture fill > Insert from file
3. Choose a picture from your files and press Insert
4. Close the Format Background dialog box

THANK YOU

Hulda Steingrímsdóttir
Environmental Manager at Landspitali
huldast@landspitali.is