

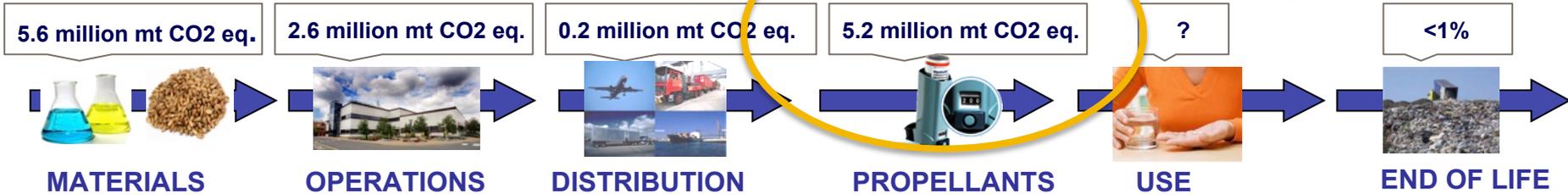


# **RESPIRATORY MEDICINE 2020 – HIGH QUALITY, LOW CARBON**

**Mark Rhodes**

# GSK High Level Environmental Sustainability Strategy – Carbon Neutral Value Chain by 2050

GSK Value Chain Carbon Footprint is 14 million mt CO2 eq. per annum



## GSK Environmental Strategy

2015

2020



10% reduction in overall Carbon Footprint

25% reduction in overall Carbon Footprint



20% reduction (Direct Ops)

20% reduction (Value Chain)

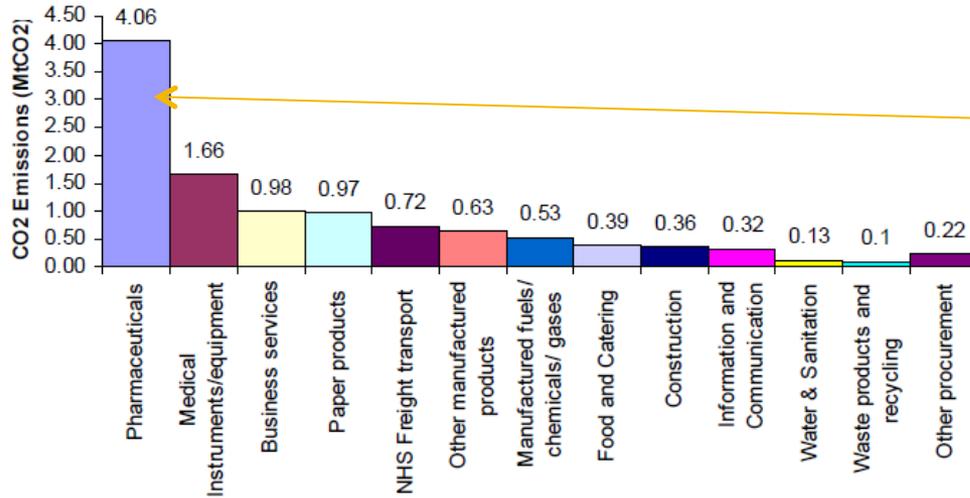


- 2.5% Mass efficiency
- 25% Reduction in Operational waste to landfill
- 25% Reduction in hazardous and non-hazardous waste

- 5% Mass efficiency
- Zero Operational waste to landfill
- 50% Reduction in hazardous and non-hazardous waste

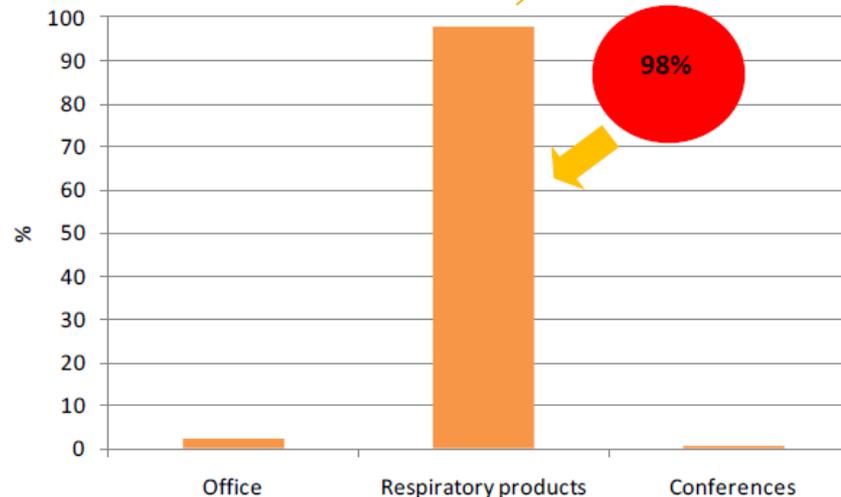
# GSK UK Pharma business unit carbon footprint

Figure 4 - 2004 CO<sub>2</sub> emissions: procurement sub-sectors



GSK UK respiratory products contribute approximately 600,000 tonnes of CO<sub>2</sub>eq to UK healthcare footprint

Figure i: Breakdown of emissions covered in the study



# Example Product Footprints – Cradle to Gate



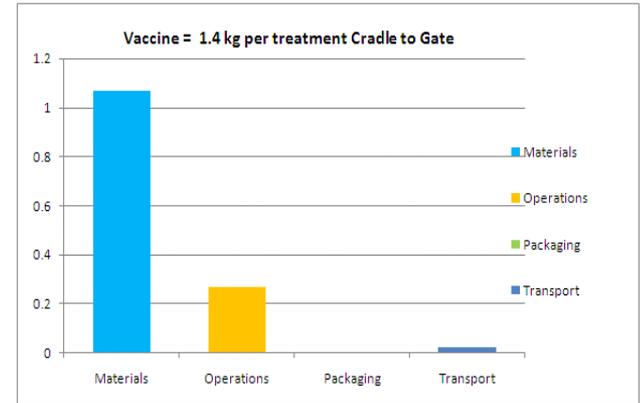
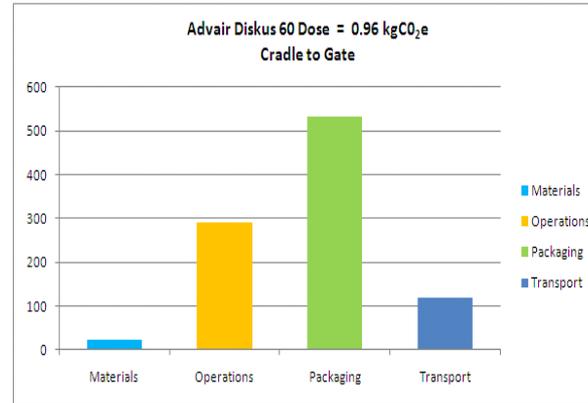
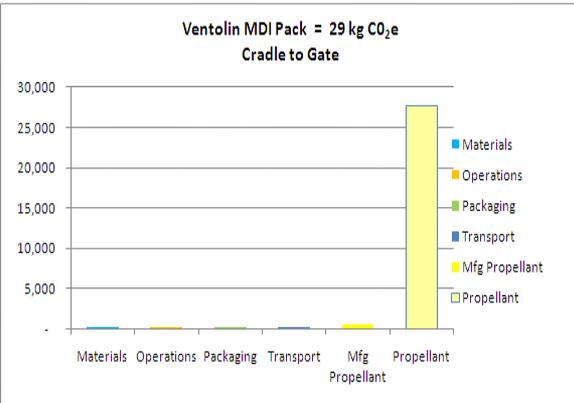
MDI 200 actuation device  
293g CO<sub>2</sub>eq. per dose (2 puffs)



DPI 60 dose device  
16 g CO<sub>2</sub> eq. per dose



Generic vaccine  
1370 g CO<sub>2</sub> eq. per dose



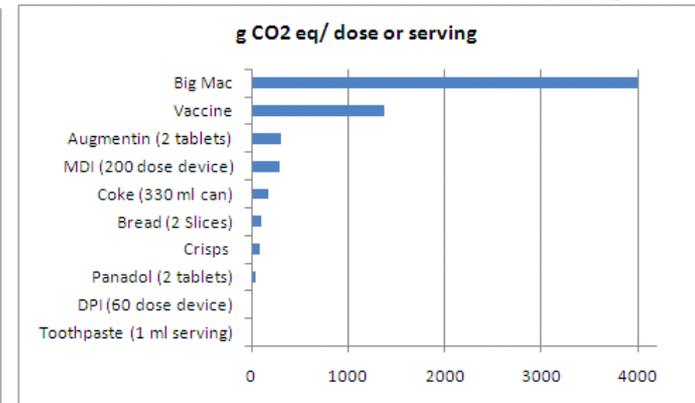
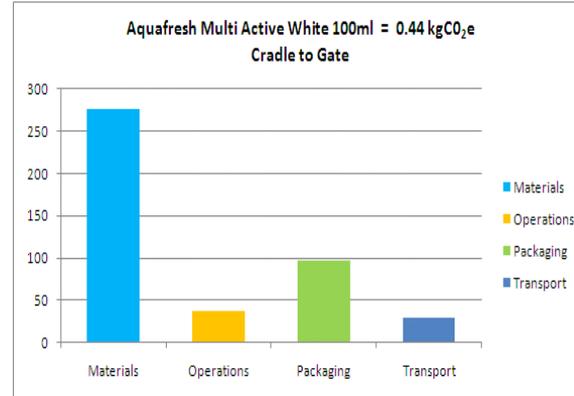
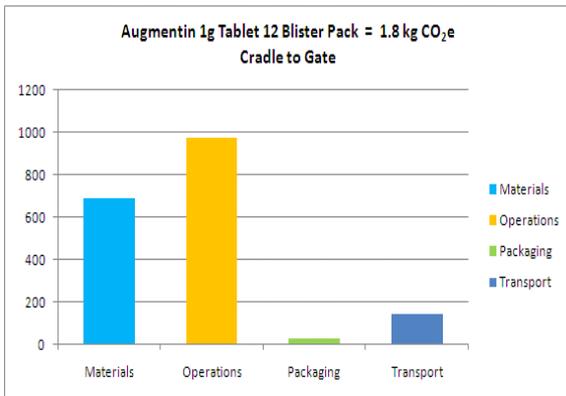
Augmentin  
150 g CO<sub>2</sub> eq. per tablet



Aquafresh  
4 g CO<sub>2</sub> eq. per 1ml

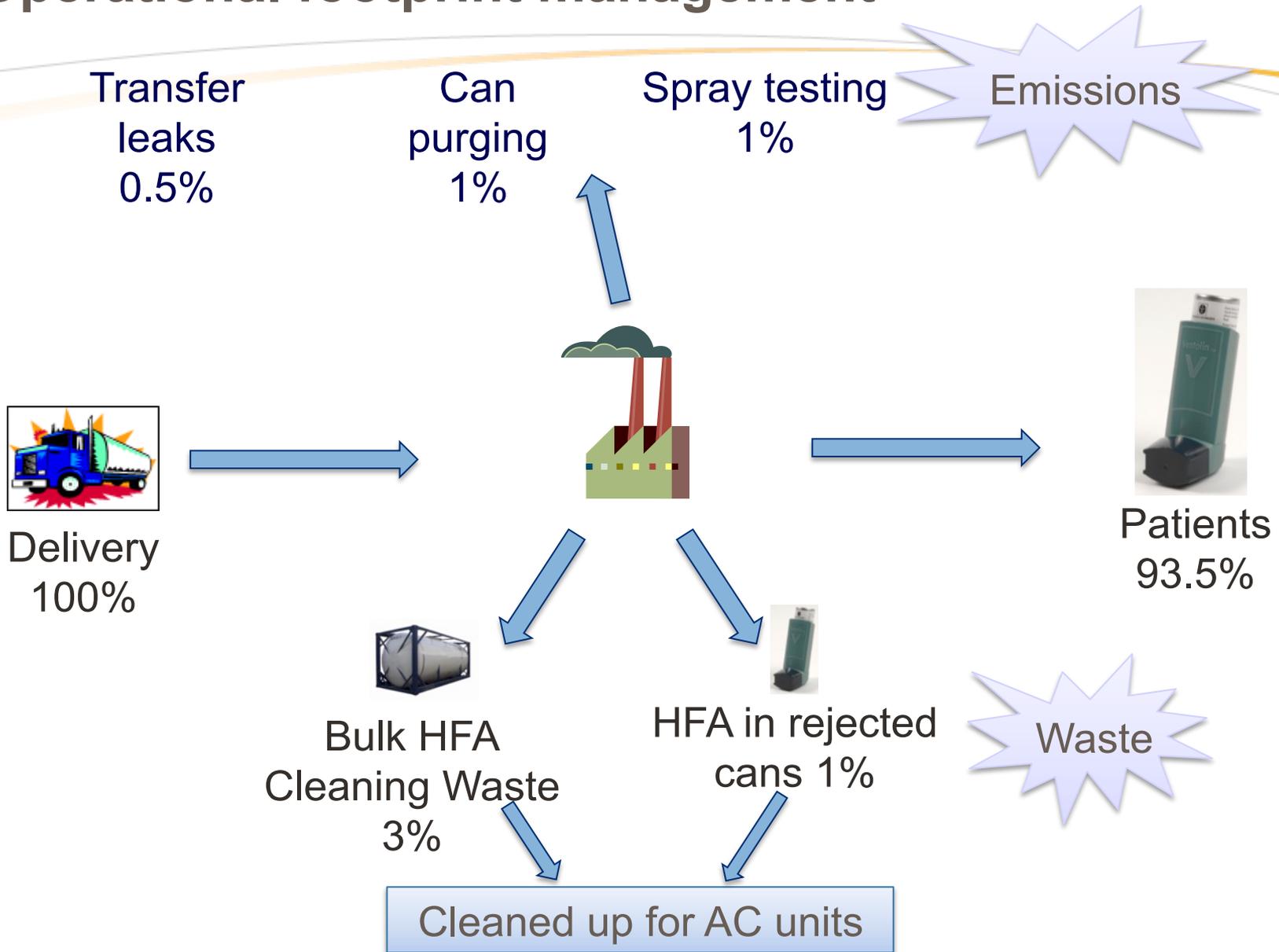


Product Comparisons



Nebules ~ 64g CO<sub>2</sub>eq/dose

# Operational footprint management

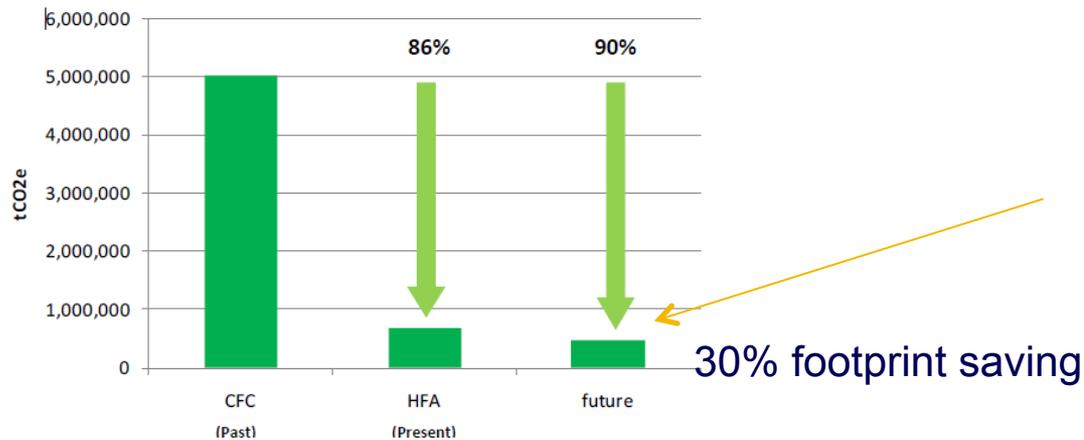


# Patient footprint management

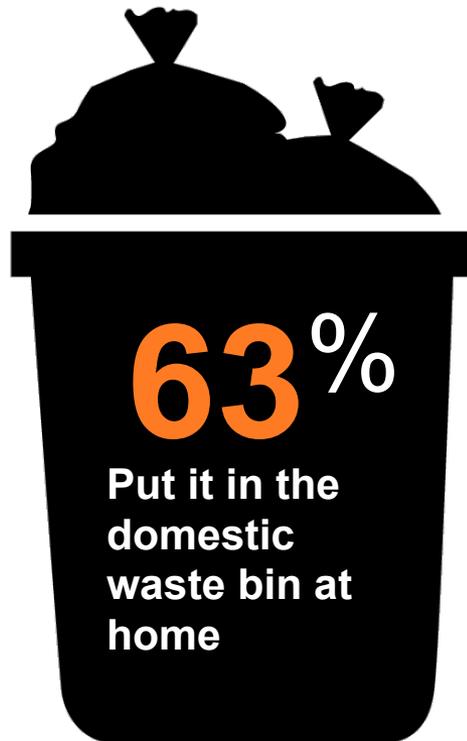
## Future direction

- No new products in MDIs - near term
- Lower shot-weight valves - medium term
- Replacement propellants - long term
- New delivery forms - long term

Figure iv: Carbon footprint of inhalers using different propellant gases (based on 2009 sales)



# Current mode of disposal for asthma inhaler



Other mentions ≤ 10%

Q3A. How do you currently dispose of your/your child's asthma inhaler device when you have finished using it?

Base: All respondents (503) Survey performed by Kantar Health

# Post-patient footprint management



12 month programme  
25,000 inhalers returned  
127t CO<sub>2eq</sub> saved\*  
72% MDI, 19% DPI, 9% other  
240 pharmacies involved  
NI and Scotland expansion

\* Based on sample of 1000 devices and their contents



## Summary

- Switch from CFCs has reduced carbon footprint dramatically
- MDIs using 134a have 18 times more CF/dose than DPIs (ratio even higher for HFA 227)
- Industry can take steps to reduce MDI carbon footprint
- Patients can contribute by recycling empty devices where schemes exist or place used MDI cans in domestic metals recycling containers