

# Sustainable Vision: Addressing the Climate-Health Nexus in Eye Care

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## The Climate Healthcare Nexus

“Climate change is the greatest threat to global health in the 21st century” WHO.

“The healthcare industry contributes 4.4% of global emissions” Lancet Countdown, 2021.

NHS produces 5.4% of the UK’s greenhouse gas emissions, and is responsible for 3.5% of all road travel in England.

## Objective

To illustrate Cataract extraction surgery as a pioneer in reducing the carbon footprint.

## Context

Cataract is the leading cause of blindness and severe visual impairment worldwide.

In 2019, 29 million cataract surgeries globally, projected to increase to 50 million in 2050.

The carbon footprint for one cataract operation in Cardiff was 181.8 kg CO<sub>2</sub>eq.

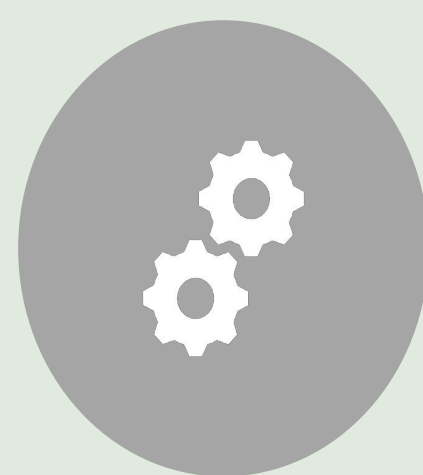
Packaging contributed **32.2%** of waste, largely on info leaflets (**70 pages in 11 languages**).

The lens weighs <1g vs 64g for packaging.

## Eco-Conscious Eyecare: Sustainable Practices



Led Energy Efficient Lighting



Reusable Sterilizable Instruments



Recyclable Biodegradable Materials



Collaborations of professional societies & multinational initiatives to enable less packaging.



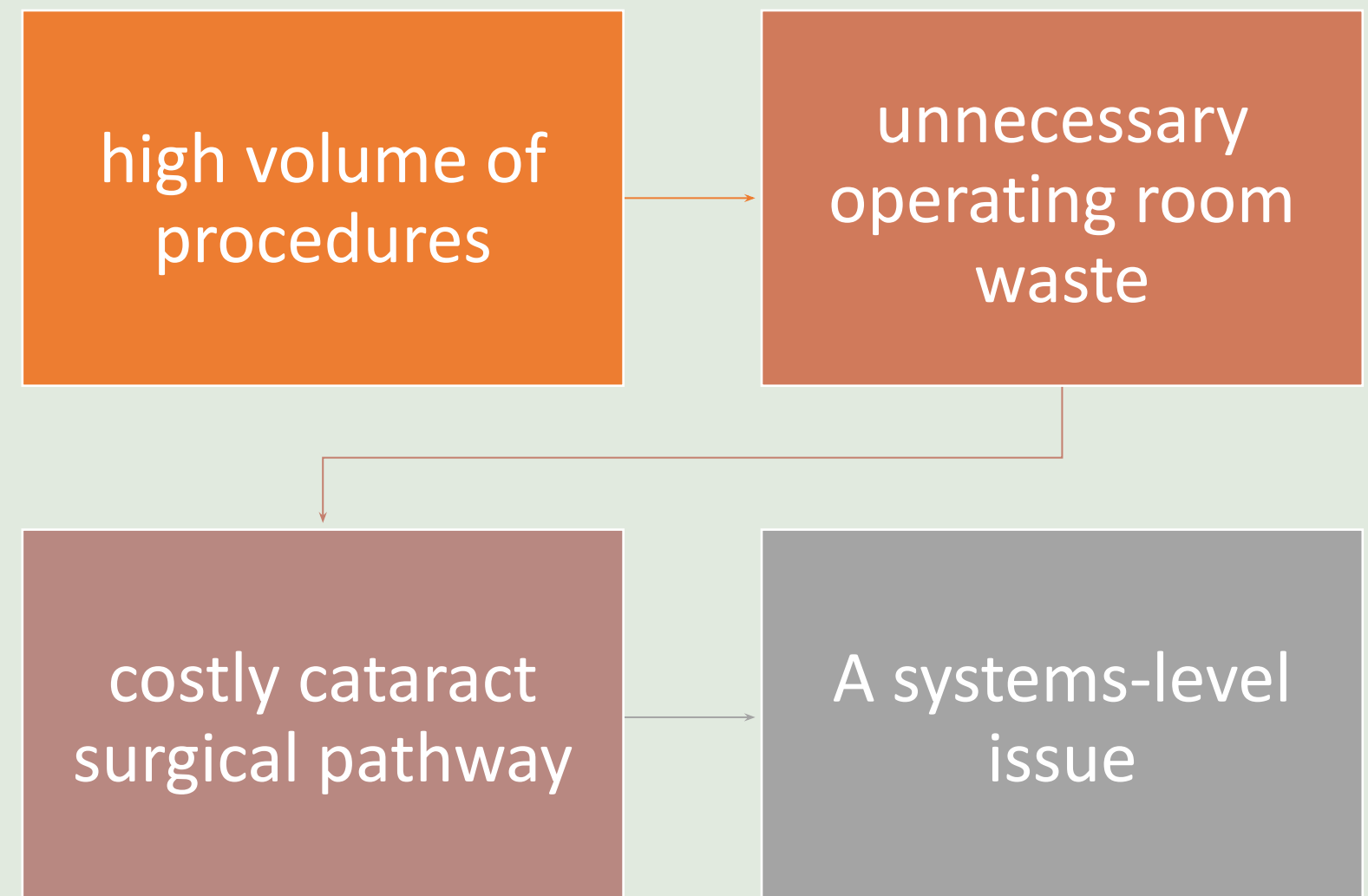
Training cataract surgeons on greener surgical practices.



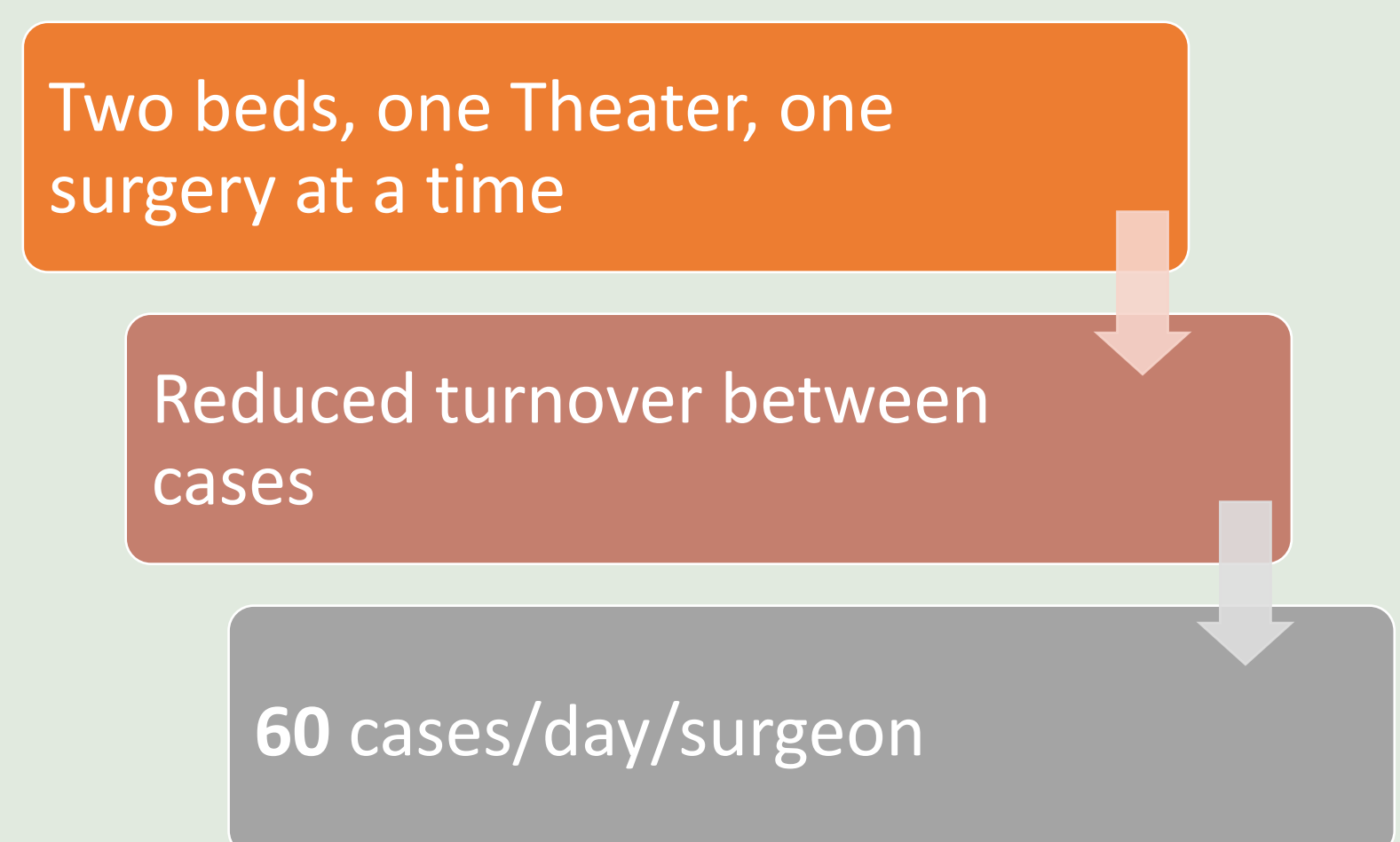
Lessons can be adapted from low resource hospitals.



Reduce greenhouse gas emissions in the procurement and consumption process of OR materials.



## Challenges in Ophthalmic Surgery



## Optimization; Aravind Eye Hospital Model

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