



Why Climate Change and Energy Matters to Healthcare

WI Governor's Task Force on Climate Change

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Jeff Rich, Senior Advisory Consultant to Health Care Without Harm

Jeff Rich

- Wisconsin native, living near West Salem, WI
- B.S. Mechanical Engineering – U.W. Platteville
- 17 years in manufacturing (John Deere, Trane)
- 12 years in healthcare - Gundersen Health (retired 4/19)

Developed and led Gundersen's Envision Program

- 55% energy efficiency improvement
- Implemented a portfolio of renewable energy projects (wind, solar, biogas, biomass, geothermal)
- 1st U.S. health system to achieve energy independence 10/14/14

Relevant Committee and Board Service:

- National Governor's Association Policy Academy – Hospital rep. (2010)
- Gundersen Health Plan – Board Member and Secretary (2011 - 2016)
- U.W. Platteville – S.R.E.S. Major Advisory Board Chair (2015 - present)
- Health Care Without Harm Climate Council Steering Committee (2018)
- Renew Wisconsin - Board Member and Treasurer (2019 - present)
- Wisconsin Health Professionals for Climate Action - Advisory Board (2020)



Sr. Advisory Consultant to
Health Care Without Harm



Health Care Without Harm (HCWH), founded in 1996, supports the health care sector in reducing its carbon footprint, building climate-smart and resilient hospitals and communities, and mobilizing health care's influence and purchasing power to advance the transition to a sustainable, healthy, and just future.

**National member network of over 1200 hospitals, including
70 Wisconsin hospitals**

<https://noharm.org>



Health care contributes to climate change

10% of U.S. greenhouse gas emissions

Energy use for heating, cooling, lighting, & water use

Waste anesthetic gases

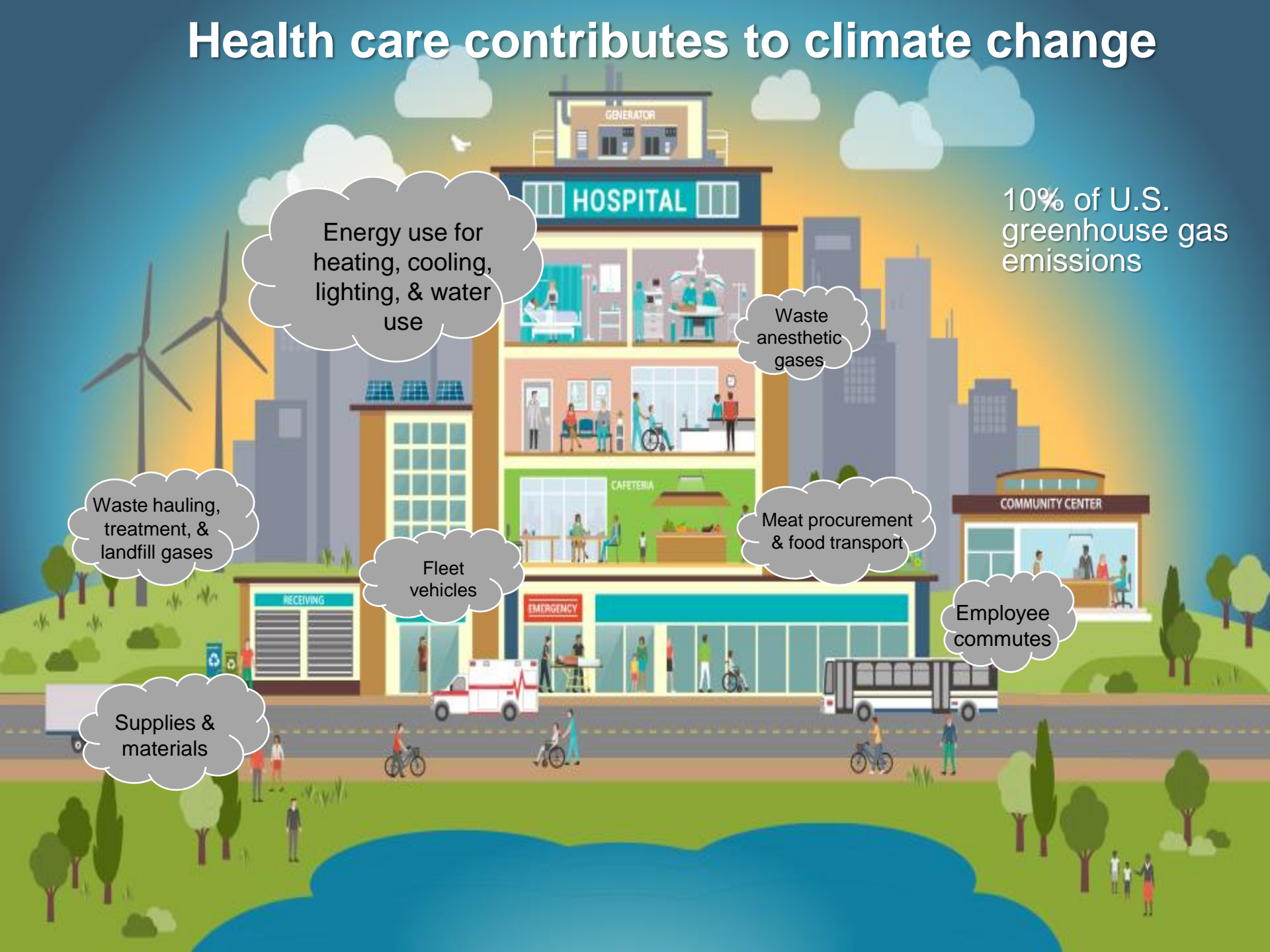
Waste hauling, treatment, & landfill gases

Meat procurement & food transport

Fleet vehicles

Employee commutes

Supplies & materials



Impact of Climate Change on Human Health

Injuries, fatalities,
mental health impacts

Asthma,
cardiovascular disease

Malaria, dengue,
encephalitis, hantavirus,
Rift Valley fever,
Lyme disease,
chikungunya,
West Nile virus

Heat-related illness
and death,
cardiovascular failure

Severe
Weather

Air
Pollution

Changes
in Vector
Ecology

Extreme
Heat

RISING
TEMPERATURES

MORE EXTREME
WEATHER

Increasing
Allergens

Respiratory
allergies, asthma

Forced migration,
civil conflict,
mental health impacts

Environ-
mental
Degradation

INCREASING
CO₂ LEVELS

RISING
SEA LEVELS

Water and Food
Supply Impacts

Water
Quality Impacts

Cholera,
cryptosporidiosis,
campylobacter, leptospirosis,
harmful algal blooms

Malnutrition,
diarrheal disease



Some Climate Change Effects We've Seen in Wisconsin

Increased vector borne disease¹ / Severe flash flooding events



¹Source: <https://www.dhs.wisconsin.gov/publications/p01109.pdf>

Good Stewardship Leads to Affordable Care



- Healthcare cost crisis exists
 - Higher energy and costs are passed onto patients
 - At 4% margin, a \$1 cost reduction is equal to \$25 of revenue growth
- The typical hospital has 25%-30% energy waste
 - More difficult for small, rural hospitals to address
 - Hurdles include opportunity awareness, capital constraints, staff capabilities
- Additional energy savings potential via onsite renewable generation
 - Reduce peak demand charge cost impact

A Better Local Economy

A wind turbine stands in a field at sunset, with corn stalks in the foreground. The sky is a mix of orange, yellow, and blue, and the sun is low on the horizon, casting a warm glow over the scene.

Wealth = Health

- Studies have shown a correlation between the economic health of a community and the health of its population¹

Wisconsin spends between \$10B - \$20B annually for fossil fuels

- More homegrown, clean energy is a huge opportunity!

Our communities want to participate in a clean energy economy!

- More distributed, cleaner, and more equitable

¹<https://www.urban.org/sites/default/files/publication/49116/2000178-How-are-Income-and-Wealth-Linked-to-Health-and-Longevity.pdf>

Some HCWH recommendations - Mitigation

- **Expanded Energy Efficiency programs**
 - Focus on Energy incentives for electronic controls and B.A.S.
- **Increased Net Metering Caps**
- **Allow 3rd Party Ownership / Financing of Onsite Solar**
- **Create a Renewable Natural Gas (RNG) market**
 - 60% of hospital energy use is for heating needs
- **Incentives for Electric Vehicle fleet conversion and infrastructure**
 - Hospitals and clinics could make good charging locations

Some HCWH recommendations - Adaptation

- **Provide support for Community Climate Vulnerability Assessments**
 - I.D. critical functions in community resiliency planning
- **Incentives for energy storage and microgrids**
 - Hospitals could serve as a pilot for key infrastructure
- **Grants for hospital co-generation with “Island Mode” capabilities**
 - Hospitals have 24 x 7 simultaneous heating and electricity loads



Thank you!

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