1

Outline

- Health improvements & consequences (planetary health)
- Health system resilience
- A call to action, including masters & other curriculum
- Discussion



Global Health to Planetary Health Concepts

- 20th century disease "silos"
- 21st century resources, progress
- Focus on equity, economies & ecology
 - · Sustainable Development Goals....

Planetary Health

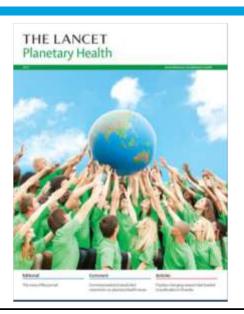




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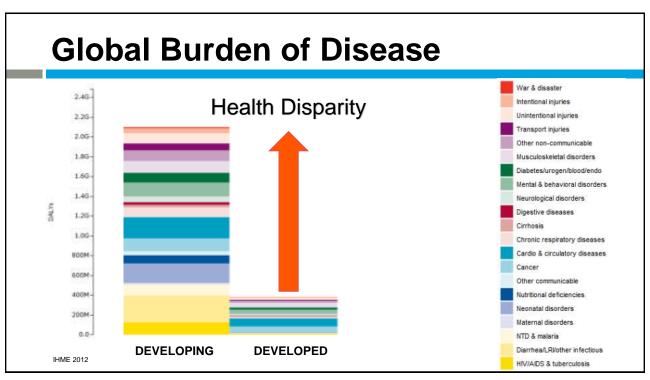
Planetary Health – Intersecting Disciplines

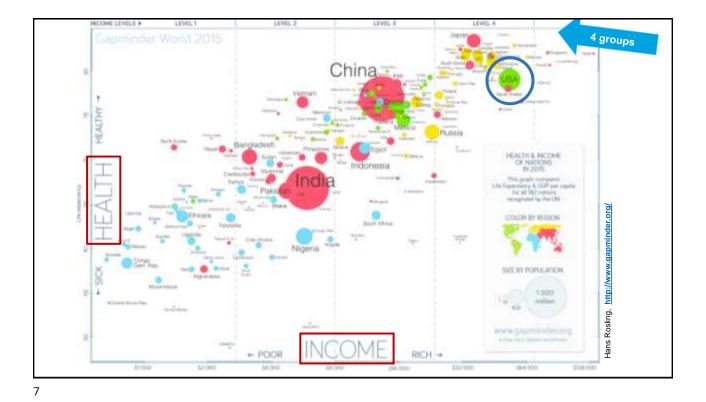




Health Trends Globally

- Rising non-communicable diseases
- Aging populations
- Global urbanization
- Inequity
- Climate change, ecosystem strain





Sustainable Development Goals

- Framework focused on equity, economics, & environment
- Increasingly used by governments, funders, business, other sectors

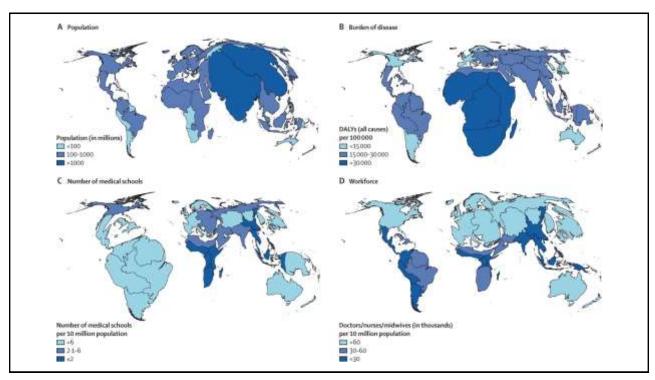










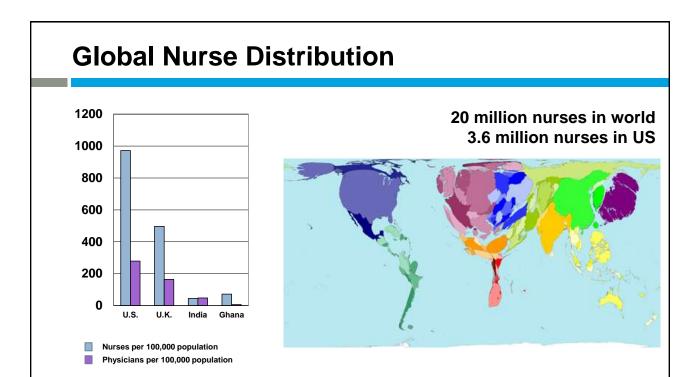




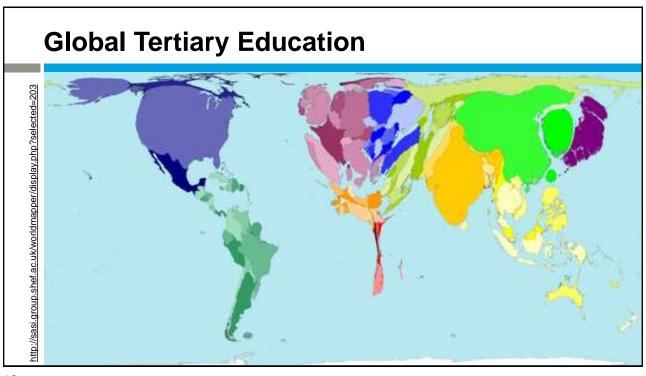
Better
Health
Triple
impact of
nursing
Greater
gender
equality

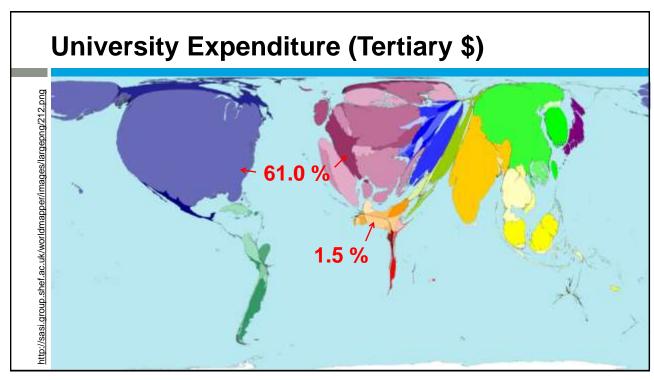
Stronger
economies

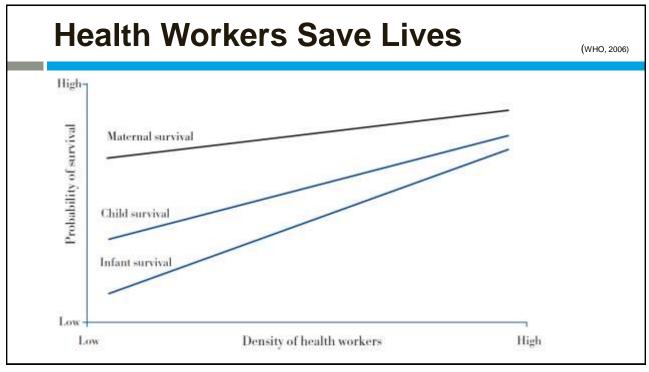
Crisp 2016



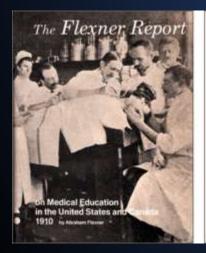


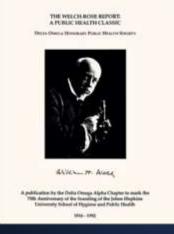


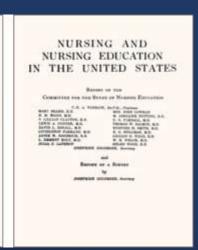




EDUCATING THE 20th CENTURY HEALTH PROFESSIONAL







19

A Vision for 21st Century Education

Major Findings

- Shortage & maldistribution of education institutions (not matching population size and burden of disease)
- Great disparities in global expenditure for human resources for health (HRH) education
- Weak and uneven accreditation and learning systems
- Scarcity of information & research on HRH education
- No robust evidence on effectiveness of innovative initiatives launched

Ultimate Purpose

"Assure universal coverage of comprehensive services essential for health equity within & between countries"

Proposed Reforms & Outcomes

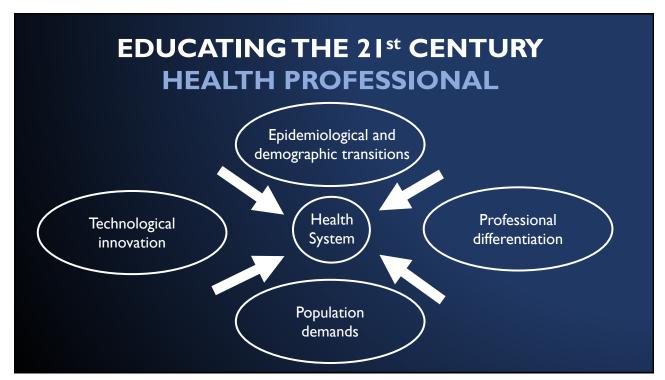
- Instructional Transformative learning: to develop leadership attributes and produce change agents
- Institutional Interdependence in education: to harmonise education & HS; work in networks alliances & consortia; to harness global flows of educational content, teaching resources and innovations

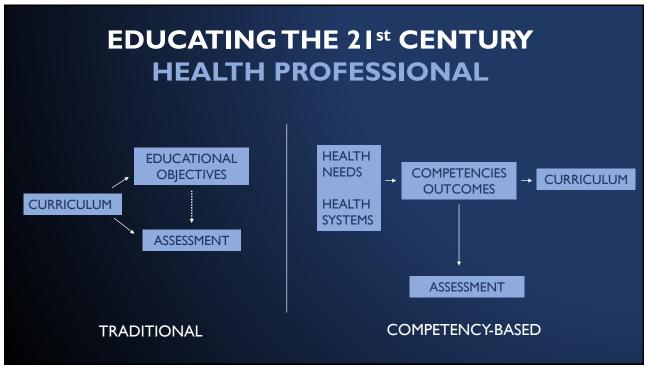
Enabling Actions

- Engagement of leaders at all levels
- Investment in HRH education
- Stewardship mechanisms (accreditation)
- Strengthening of shared learning (metrics, evaluation, research) to build knowledge base about what innovations work



Frenk J et al., Lancet 2010; 376: 1923-58





Global Health Competencies

Identified in 12 domains (2014):

- Global Burden of Disease
- Globalization of Health and Healthcare
- Social and Environmental Determinants of Health
- Capacity Strengthening
- Teamwork/Collaboration and Communication
- Ethical Reasoning
- Professional Practice
- Health Equity and Social Justice
- Program Management
- Social, Cultural and Political Awareness
- Strategic Analysis
- Communication



The Journal of Law, Medicine & Ethics

Special Issue: SYMPOSIUM: Special Supplement. Interprofessional Global Health Education: Ensuring the Collaborative Promise of 21st Century Global Health Practice

Volume 42, issue s2, pages 26-31 Winter 2014



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Global Health Competencies

CUGH Education Committee agreed on the following definitions for four different levels of students who might be engaged in global health work:

Jogerst et al. Identifying Interprofessional Global Health Competencies for 21st-Century Health Professionals, *Annals of Global Health*, 2015. 81(2):239-247.

Level I: Global Citizen Level

ompetency sets required of all post-secondary students pursuing any field with bearing on alabal health

Level II: Exploratory Level

Competency sets required of students who are at an exploratory stage considering future professional pursuits in global health or preparing for a global health field experience working with individuals from diverse cultures and/or socioeconomic groups.

Level III: Basic Operational Level
Competency sets required of students aiming to spend a moderate amount of time, but not necessarily in entire career, working in the field of global health.

Two sub-categories exist in Level III:

Practitioner-Oriented Operational Level: Competency sets required of students: 1) practicing discipline-specific skills associated with the direct application of clinical and clinically-related skills acquired in professional training in one of the traditional health disciplines; and 2) applying discipline-specific skills to global health-relevant work from fields that are outside of the traditional health disciplines (e.g., law, economics, environmental sciences, engineering, anthropology, and others).

Program-Oriented Operational Level. Competency sets required of students within the Basic Operational Level in the realm of global health program development planning, coordination, implementation, training, evaluation, or policy

Level IV: Advanced Level
Competency sets required of students whose engagement with global health will be significant and sustained. These competencies can be framed to be more discipline-specific or tailored to the job or capacity in which one is working. This level encompasses a range of study programs, from a masters level degree program, up to a doctoral degree with a global health-relevant concentration. Students enrolling in these programs are woully committed to a causer in global health-related activities.

Educational Partnership vs Volunteerism

Framework/competencies

(L. Wilson et al '16)

• Who benefits?

Volunteer experiences have the potential to both benefit and harm the host community as well as the volunteer. Humility, trust, and respect must characterize the volunteer's approach to all interactions, and ethical obligations must be honored. All volunteer experiences, local and global, should be carefully planned with adequate volunteer preparation. Pre-departure planning, on-site experience, and post-departure evaluation should be done in collaboration with the host community.

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Clinical Practicums

Developing and Validating Learning Domains, Competencies, and Evaluation Items for Global Health Clinical Immersion Practicums for Graduate-Level Nursing Programs

Tracy Kelly, MSN, CPNP Mark Lazenby, PhD, APRN, FAAN

Evaluation tool identifies academic prerequisites needed for achievement of expected competencies upon completion of the practicum experience

(2018)



Ethical Principles Global Health Nursing Practice

- 1. The global health nurse promotes an environment in which the human rights, dignity, values, customs, and spiritual beliefs of the individual, family, and community are respected. (0.90)
- The global health nurse advocates for equality and social justice in resource allocation, access to health care and other social and economic services (ICN, 2012). (0.76)
- The global health nurse demonstrates professional values such as respectfulness, responsiveness, compassion, trustworthiness, and integrity (ICN, 2012). (0.92)
- 4. The global health nurse values diversity of opinion, beliefs, culture, and perspectives. (0.88)
- 5. The global health nurse consistently maintains standards of personal conduct, which reflect well on the profession and enhance its image and public confidence (ICN, 2012). (0.77)
- The global health nurse strives to foster and maintain a practice culture promoting ethical behavior and open dialogue (ICN, 2012). (0.77)
- 7. The global health nurse must demonstrate responsibility and accountability for nursing practice and for maintaining competence by continual learning (ICN, 2012). (0.79)
- 8. The global health nurse strives to promote safe working conditions for nurses globally. (0.74°)
- The global health nurse sustains a collaborative and respectful relationship with coworkers in nursing and other fields (ICN, 2012). (0.81)
- 10. The global health nurse works in partnership with host country nurses, groups, and governmental and nongovernmental organizations. (0.79)

(McDermott-Levy et al., 2018)

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Global Health and Nursing Literature



CUGH White Paper

Report on Collaborative University-Based Programs
Building HRH Capacity in Resource Constrained Nations (Roush, Kurth, Gerchow 2014)



METHODS

- Scoping Review 17 articles, 4 grey lit 1995-2013
- Key Informant Interviews N = 17
- Case Study: Rwanda Project

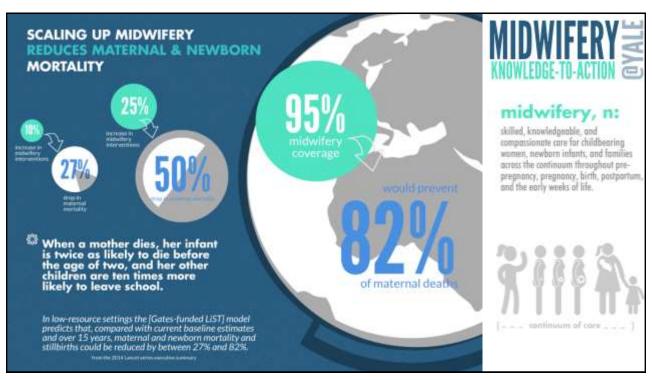
RECOMMENDATIONS

- Coordinate efforts and information across programs/regions
- Commit to long-term support
- Build relationships
- Clear, well-defined purpose with defined goals, outcomes
- Use of technology
- Include governmental agencies
- Holistic approach
- Comprehensive, detailed pre-assessment of local context
- Systematic evaluation and data collection
- Rigorous research on factors influencing success

Our Challenge

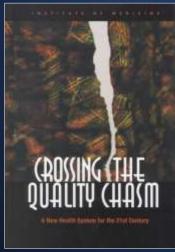
Human Resources for Health
Implementing in most effective, efficient, and equitable manner
Measuring outcomes and achieving SGDs

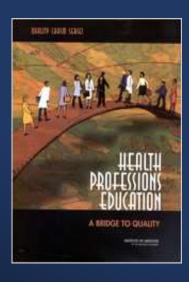




ENSURING HIGH QUALITY OUTCOMES

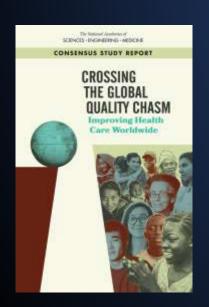






33

IMPROVING GLOBAL QUALITY OF CARE



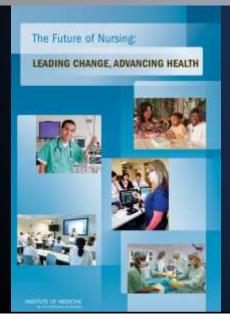
In LMICs, between <u>5.7M</u> and <u>8.4M</u> deaths occur each year from poor quality of care – resulting cost of lost productivity <u>\$1.5 trillion annually</u>

Six Dimensions of Quality Health Care

- Safety
- Effectiveness
- Person-centeredness
- Accessibility, Timeliness, Affordability
- Efficiency
- Equity

(NAS, 2018)

IOM Future of Nursing, 2010



- Institute of Medicine (Nat'l Academy of Medicine)
 - "Nurses...should work at the full extent of their training to provide timely, efficient, and costeffective care to people across U.S."
- Committee led by a non-nurse
- "Not just advancing nursing, but advancing health through nursing." (Keepnews '11)

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IOM Future of Nursing Main Points

- Nurses should practice to full extent of education and training
- Nurses should achieve higher levels of education through system that promotes seamless academic progression
- Nurses should be full partners, with physicians and other health care professionals, in redesigning health care
- Effective workforce planning and policy making require better data collection and improved information infrastructure

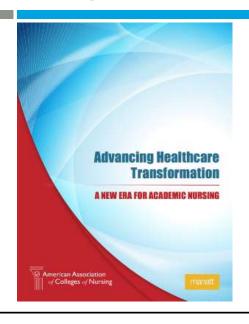
NAM Future of Nursing, 2020-2030

- Extend vision for nursing into 2030
- Chart path for nursing to create a culture of health, reduce health disparities, improve well-being of population in 21st century
- Examine current state of science and technology to assess capacity of nursing to meet health and social care demands to 2030
- Will our curriculum reflect above?

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Interprofessional Curricula Recommendations Reforming Primary PROFESSIONALS HEALTH Health Care: A Nursing Perspective WORKFORCE

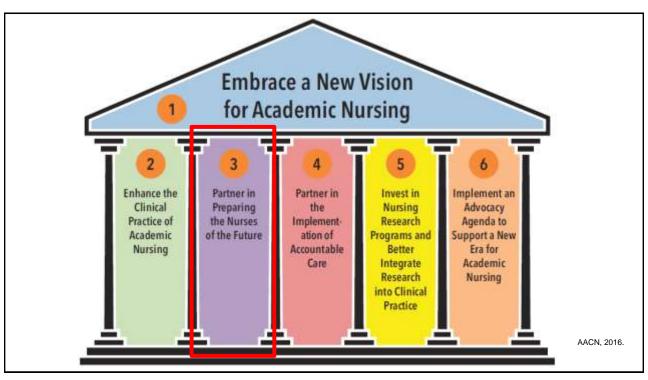
Nursing Schools & Health Systems Should Work Together



'New Era' Report

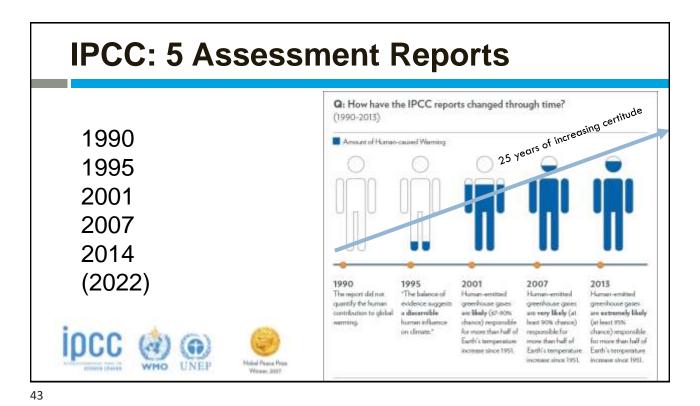
"Further alignment of medicine, nursing, and health system organizations may also prove beneficial...

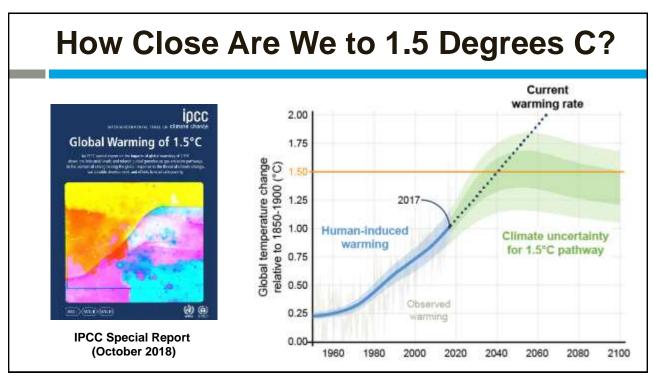
 American Association of Colleges of Nursing (AACN) March 2016













Safeguarding human health in the Anthropocene epoch: report of The Rockefeller Foundation-Lancet Commission on planetary health

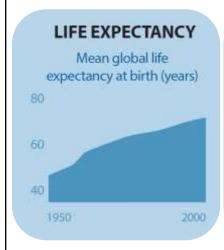
"we have been mortgaging the health of future generations to realize economic and development gains in the present. By unsustainably exploiting nature's resources, human civilization has flourished but now risks substantial health effects from the degradation of nature's life support systems..."

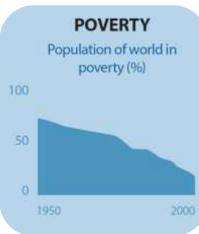
(Whitmee et al., 2015)

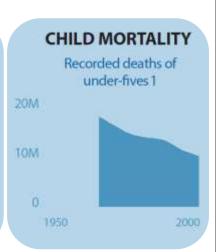
45

Things Are Getting Better...

ww.thelancet.com/commissions/planetary-health

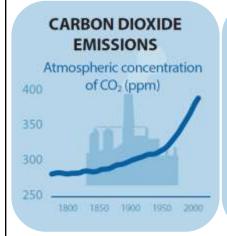


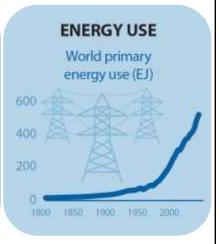




But Ecologic Cost/Damage

www.thelancet.com/commissions/planetary-health

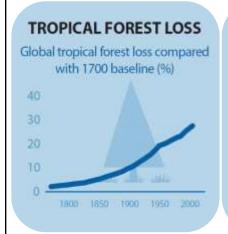


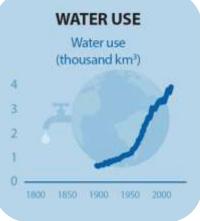


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Ecologic Cost

www.thelancet.com/commissions/planetary-health

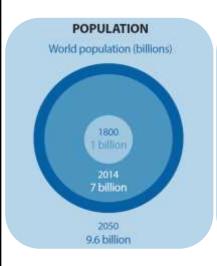


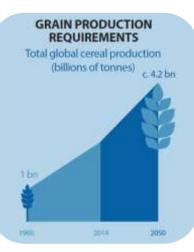


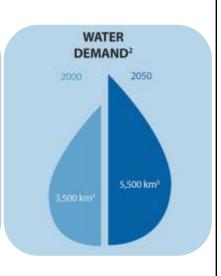


Ecologic Cost

www.thelancet.com/commissions/planetary-health







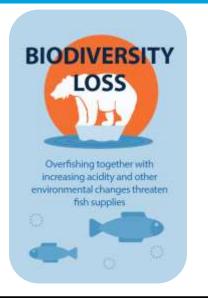
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Ecologic Cost

(www.thelancet.com/commissions/planetary-health)

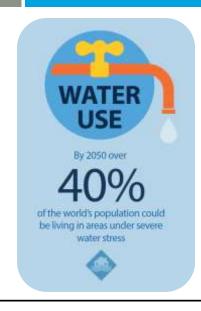


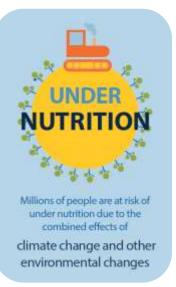




Ecologic Cost

(http://www.thelancet.com/commissions/planetary-health)





May see reversal of progress, government destabilization due to unsustainable resource consumption, inequities

51

Planetary Health Effects (WHO, in Corvalan 2005) **Environmental changes and ecosystem Examples of health impacts** impairment Climate change 1. Direct health impacts Ozone depletion Floods, heatwaves, pollutants, etc. Deforest, land changes **Escalating** Desertification human 2. Ecosystem-mediated health pressure Wetlands loss impacts on global Infectious disease, undernutrition, etc. **Biodiversity loss** environment Freshwater depletion Urbanization 3. Indirect, deferred, & displaced health impacts Coastal reefs Populations displaced, conflict, etc.

Planetary Health - Direct Health Impacts

- Floods up to 250 million affected
- Drought climate refugees in and between countries
- Heatwaves affecting elderly, vulnerable
- Pollutants
 - 5.5 million excess deaths globally 2016.
 - Coal emissions → major cause of deaths (heart disease, cancer, stroke, respiratory)

More deaths than due to HIV + malaria



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Ecosystem-Mediated Health Impacts

- Changes in disease dengue,
 Lyme endemic mid-latitudes, 100s
 millions more malaria exposure
- Mental health loss of social networks, trauma/PTSD, anxiety, depression
- Changes in food availability, cost malnutrition



PH Effects – Indirect Health Impacts

 Displaced populations – shifts to cities straining health services

Conflict

Climate refugees may reach many millions by 2050

March 20, 2016, by Alex Eirbs



A Fulusi certic berder in West Africa: Funnsalists need setuge for their animals on Amage: Pe-Brendertops: six Wikinesiis Commons

Climate influence, people fleeing climate change's impacts by receiving to receive mores, may number over 140 million by 2000, the World Bank reports.

ABOUT -

Awith salared Econolised

55

Conflicts



Van Susteren 2017









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Planetary Health Ethics

Disproportionate impact on poorest – health inequities







Talking about Planetary Health

1. Keep emotions even-keeled

2. Avoid apocalyptic focus

Addressing it now improves economies, jobs, social justice, & population health – GAIN FRAME!

3. Seek common ground

Leverage beliefs (religious leaders; business green economy; military security)

4. Tell personal stories

5. Emphasize facts

97% scientists agree climate change is happening & due to humans Parry 2016

59

Emphasize SOLUTIONS



Mad Max: Fury Road, 2015

"Climate change solutions benefit mental health."

- APA 2017



Remember the opportunity in crisis...

Mitigation & adaptation efforts now will have benefits

A green economy (and health system) is strong

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How to Act on Planetary Health

To safeguard human health we need to maintain the health of the planet on which we depend

http://www.thelancet.com/commissions/planetary-health

How to Act on Planetary Health



Use More Water Efficiently



Family Planning



End Deforestation



City Planning

http://www.thelancet.com/commissions/planetary-health

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How to Act on Planetary Health



Learn about Planetary Health



Healthy Diets
With Low
Environmental
Impact





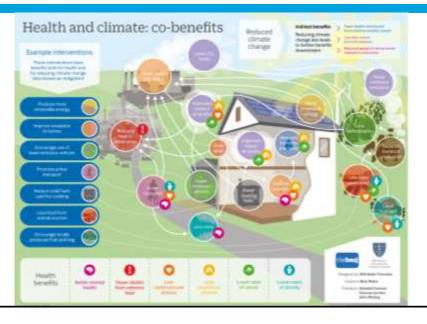
Reduce Food Waste



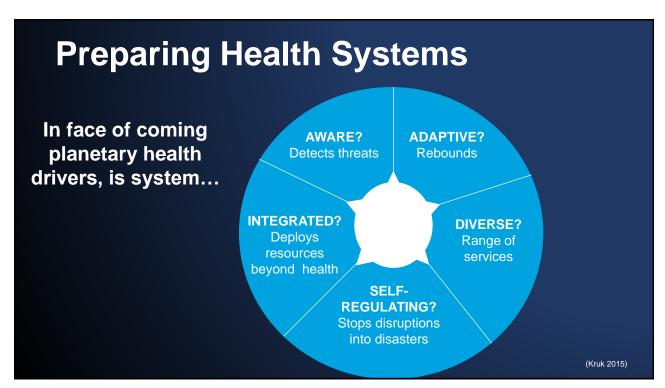
Better Governance

http://www.the lancet.com/commissions/planetary-health

Policy/Action to Address Climate & Health







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Health System Resilience



capacity to respond, adapt, and strengthen when exposed to a shock...



Have We Learned from Ebola?



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One Health Competencies

 Emergence of Ebola virus in West Africa demonstrate critical need for health workers prepared to manage diseases that cross human, animal, environmental health areas



(USAID, 2016)

One Health Competencies Identified in 7 domains:

- Management
- Communication and Informatics
- Values and ethics
- Leadership
- Team and collaboration
- Roles and responsibilities
- Systems thinking

(Togami et al, 2018)

One Health Core Competencies (Togami et al, 2018)

Competency	Objective	Skills
Health Knowledge	Demonstrate knowledge of established and evolving transdisciplinary One Health sciences (e.g., public health, animal health, environmental sciences, modern agriculture)	Characterize cause, evolution, and ecology of infectious disease agents Describe transmission routes for toxins, pathogens, and resistance genes Xplain epidemiologic principles used to characterize one health problems Understand scientific principles such as biological complexity, genetic diversity, systems interactions, etc that influence one health Identify cultural and socioeconomic determinants and effects of illness Xplain how bio surveillance, diagnostics, and therapeutic countermeasures are deployed Describe disease prevention interventions that improve human, animal, plant, and environmental health at individual, community, population levels
Global and Local Issues in Humans, Animals, Plants and the Environment	Demonstrate understanding of historical, cultural, political, economic, and scientific aspects of emerging health problems that are amenable to the One Health approach	Describe the biological principles, scope, and complexity of disease Understand the effects of global change on health Identify, understand origins and determinants of health as related to disease Compare and contrast health and non-health consequences of diseases and exposures Recognize major challenges and opportunities to improve health Food safety Understand the structure and responsibilities of the public health system Describe the relationship among various key One Health stakeholders
Professional Characteristics	Demonstrate ability to understand and apply principles of research and evaluation methods to policy and health program implementation, as well as apply scientific findings to real-life situations	Describe benefits/challenges of a multidisciplinary, integrative approach when implementing one health studies Effective communication (oral and written) to different audiences Demonstrate scientific quant skills (e.g., evaluate design, interpret findings, develop discussions, implementable recommendations) Ability to build/manage transdisciplinary team; conduct research to inform policy Translate research findings/discoveries into health policies/community programs/ interventions/public education that is sustainable, cul relevant and econ feasible

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Key Messages

- Health and well-being of people worldwide matter, and affect everyone
- Global health is relevant to all of us as citizens
- Educating, training, and empowering health care workers for global health impact
 - What is in our curriculum
 - How are we preparing health workers & systems for what's coming

Resilience for the Health Industry

- Some global warming will continue (2.5 – 7.7∘F rise inevitable, this century)
- Nurses can lead local, regional adaptation
 - Partner with local decision makers
 - Identify at-risk populations, emergency plans, monitoring
 - Provide guidance to students, patients & families
 - Posters, brochures
 - Curriculum
 - Health facility preparation
 - Anticipate demand surges (ED, out-pt), generators, emergency transport

(Sayre 2010)

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Framing Action on Climate Change: Health Co-Benefits





Air pollution: ~7 million premature deaths/yr: ~1 in 8 deaths/yr (GBD, 2015)



Food Systems

Cardiovascular risk from high meat diet (switch from beans-beef = 70% emission target)



Transportation

Physical inactivity: 5.3 million premature deaths/yr (Lee, 2012)

(J. Patz, Yale talk, 3/2018)

Investing in Climate-Smart Health Systems

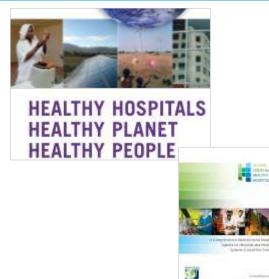
Low-Carbon Healthcare Interventions Climate-Smart Healthcare Resilient Healthcare Interventions



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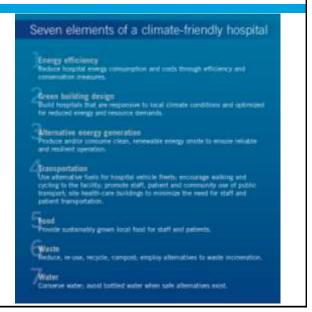
Sustainability in Health Industry

- WHO hospitals guide (2015)
- Healthier Hospitals Initiative
 - >1000 US hospitals
- Global Green & Healthy Hospitals
 - >750 members on 6 continents,>20,0000 hospitals
- Green teams on units



Sustainability in Health Industry

- Healthier Hospitals Initiative
 - >1000 US hospitals
- Global Green & Healthy Hospitals
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 >20,0000 hospitals
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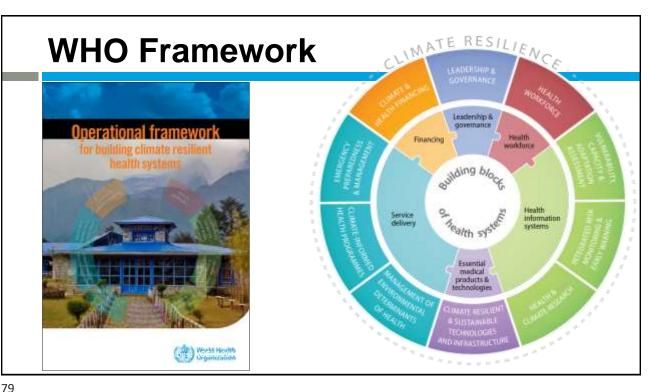
Sustainability in the Health Industry

• Anticipate/combat barriers to 'greening'

your clinical site

- Competing investr
- Inadequate staffing
- Underfunded opera
- Perceived higher c
- Time limitations (AHE

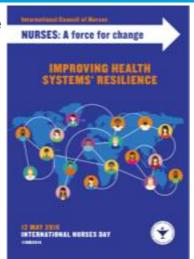




Nursing Has Taken a Stand

Policy statements on environment, resilience

- Int'l Council of Nurses
 - 2016 position nat'l nurse associations, nurses
 - 2008 statement nurses/climate change/health:
 - "nat'l nurse associations and nurses must be involved in developing national action plans and policies and be part of disaster preparedness teams to mitigate the impact of climate change on health"
 - 1999, '07, '11 statements environmental hazards



http://www.icn.ch/publications/2016-nurses-a-force-for-change-improving-health-systems-resilience/

Nursing Has Taken a Stand

Policy statements on environment, resilience

- Canadian Nurses Association (2008)
- AACN environmental sustainability task force
- Alliance of Nurses for Healthy Environments (2009)
 - 'Human health connected with every aspect of natural, built environment'
- ANA (2008)
 - Global climate change as a threat to human health, mandates and obligates action, advocacy and a "united" nursing voice
- Nurses as force for resilient health systems



http://www.icn.ch/publications/2016-nurses-a-force-for-change-improving-health-systems-resilience/

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Nursing Has Taken a Stand

"The registered nurse practices in an environmentally safe and healthy manner."

Standard 17 of the Standards of Professional Nursing Practice found in Nursing: Scope and Standards of Practice, 3rd Edition

ICN Position Statement, 2018

- Be involved in developing national action plans and policies for mitigation, adaptation, and resilience strategies as well as contribute to environmental health and justice policymaking
- Embed concept of sustainability in nursing practice as well as climate change-related knowledge into nursing curricula and in post-registration continuing education
- Collaborate with organizations (health, intergovernmental, environmental, other civil society etc.) when developing healthadaptation policies and programs
- Engage with media to promote public awareness of harmful effects of climate change on health and to promote mitigation strategies

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Planetary Health Summary

- Health progress has been made but an ecological price has been paid
- Need action now, including strengthening health systems
 - Nurses are frontline responders, trusted voices
 - Nursing role in mitigation, adaptation, policy, leadership
 - Education (presvs, CE, IPE)





Nursing Education - Curriculum Thread

5: Political and broader engagement (Lancet PH, 2015)

- 5.1 Public engagement with health and climate change
- 5.2 Academic publications on health and climate change
- 5.3 Inclusion of health and climate change within...health curricula

Global Consortium on Climate and Health Education

https://www.mailman.columbia.edu/research/global-consortium-climate-and-health-education/mission



The GCCPE is a global remark of Schools of Fabilit Health, Medicine and Newby-that after he

ACTION – Nurses Climate Challenge

Downloadable Toolkit https://nursesclimatechallenge.org/



The Nurses Climate Challenge is a national campaign to mobilize nurses to educate 5,000 health professionals on the impacts of climate change on human health.

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Nurses have unique skills needed to address this crisis

- Optimism in the face of despair
- Righteous anger and advocacy skills to address injustice, inequity
- Leadership to organize, educate, & deliver
- Innate proclivity to work with and for people
- Alliance with communities, building on strengths
- Belief that life of each is worth fighting for, and that we are stronger when working together



