CICIAMS XX World Congress
Education for Sustainable Health: Engaging Development, Respecting Life
Riverside Majestic Hotel, Kuching, Sarawak, Malaysia
4 – 7 September 2018

Nursing & Sustainable Development:
Our Responsibility,
Our Future,
Our Choice

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Hi, everyone. 😊

- A very warm welcome to Kuching for those of you who are here for the first time.
- Thank you to the organisers of this Conference for inviting me to share some of my thoughts about Nursing and Sustainable Development.
- The topics that I will cover are on the next slide.
Topics To Be Covered

• Sustainable development
  • Concept, definition, timeline
• Nursing Roles and Contributions to Sustainable development
  • Individual and family level
  • Workplace level
  • Global level
Nursing and Sustainable Development

Our future
A plan to solve the climate crisis

Our Responsibility

AL GORE

YES  NO

YES  NO

YES  NO
Sustainable Development:
Concepts, Definition, Timeline
Industrial Revolutions

- Water and steam: End of 18th century
- Electricity: Start of 20th century
- Automation: 1970s
- Cyber Physical Systems: Today

**Industry 1.0**
Mechanization, steam power, weaving loom

**Industry 2.0**
Mass production, assembly line, electrical energy

**Industry 3.0**
Automation, computers and electronics

**Industry 4.0**
Cyber Physical Systems, internet of things, networks
The great London Smog of 1952

Dense fog and cold weather combined with smoke from coal fires to envelop London in a deadly smog which killed as many as 12,000 people.

Conservation versus Preservation (started during the first industrial revolution)

**Conservationists** focused on the proper use of nature.

Conservation: regulate human use

**Preservationists** sought the protection of nature from use

Preservation: eliminate human impact altogether

Redwood Forest, California.
Sustainable Development – Definition in the Brundtland Report, 1987

is that which
MEETS THE NEEDS
of the → PRESENT
WITHOUT COMPROMISING
the ability of
future generations to
MEET THEIR OWN
NEEDS “

This definition of sustainable development comes from Gro Harlem Brundtland, Prime Minister of Norway and author of Our Common Future (1987).
“Sustainability is the nascent doctrine that:

• economic growth and development must take place,

• and be maintained over time,

• *but* within the limits set by ecology in the broadest sense.”

Our Common Journey: A Transition Toward Sustainability. p25
Three Pillars of Sustainable Development

The three interdependent and mutually reinforcing pillars are:

• economic development,
• social development,
• environmental protection.

Sources:
http://www.socialwatch.org/node/12477
https://nexuspointblog.wordpress.com/2016/02/01/social-sustainability-the-shorter-leg/
Indigenous peoples have argued that the fourth pillar of sustainable development is also cultural diversity.
Sustainable Development: What needs to be Sustained

**NATURE**
- Earth
- Biodiversity
- Ecosystems

**LIFE SUPPORT**
- Ecosystem services
- Resources
- Environment

**COMMUNITY**
- Culture
- Groups
- Places

Sustainable Development: What needs to be Developed

**PEOPLE**
- Child survival
- Life expectancy
- Education
- Equity
- Equal opportunity

**ECONOMY**
- Wealth
- Productive sectors
- Consumption

**SOCIETY**
- Institutions
- Social capital
- States
- Regions

# Links Between Sustainability and Development

<table>
<thead>
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<th>What is to be sustained</th>
<th>For how long? “Now and into the future” “Forever”</th>
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Healthy and Sustainable Communities

- Prof Trevor Hancock organised a conference in Toronto in 1984, with the theme: "Beyond Health Care"
- Became the Healthy cities movement
Components of Sustainable Development

- Environmental performance
- Economic development
- Social inclusion

Sustainable development
Selected Events Along the Timeline of Sustainable Development

- **Silent Spring**, 1962
  By Rachel Carson

- **Brundtland Report**, 1987

- **Intergovernmental panel on climate change** established, 1988

- **Earth Summit in Rio**, 1992

- **First meeting of UN Commission on Sustainable Development**, 1993

- **Kyoto Protocol** on limiting greenhouse gases came into effect, 2005

- **Millennium Development Goals (MDGs)**, 2000

- **Sustainable Development Goals (SDGs)**, 2016

Levels of Roles of Nursing in Sustainable Development

- Planet, Global
  - Sustainable Development Goals (17 SDGs)
- Workplace
  - Sustainable health and health care
- Personal & Family
  - GLOCAL
    - 4Rs – Reduce, Reuse, Recycle, Recover
    - Plastics
    - Plogging
Levels of Roles of Nursing in Sustainable Development

- Planet, Global
- Workplace
- Personal & Family

GLOCAL
- 4Rs – Reduce, Reuse, Recycle, Recover
- Plastics
- Plogging

Sustainable Development Goals (17 SDGs)

Sustainable health and health care
GLOCAL

Think globally, act locally
SDGs’ Implementation through Local Governments
WWW.NEWSUPDATETIMES.COM
3 Rs to 7 Rs

Refuse, Reduce, Reduce, Repair, Recycle, Recover, Re-think
3 Rs ... and more
(Refuse, Reduce, Reuse, Repair, Recycle, Recover, Rethink)

http://www.wastedfood.com/2014/04/04/food-for-thought/
Rubbish
Types of workplaces

• **Third class**: people throw rubbish around and no one pick them up

• **Second class**: people throw rubbish around and someone else pick them up

• **First class**: no one throws anything around and everyone works to keep things clean
Three Scandinavian attitudes

Hygge (Hoo-Ga)
Danish Secrets to Happy Living

Lagom
Not Too Little, Not Too Much: The Swedish Art of Living a Balanced, Happy Life

Plogging
For a Clean, Healthy, Sustainable Future

https://twitter.com/ulrikahafstrom/media
Plogging

Plogging

• A combination of jogging with picking up litter (Swedish: *plocka upp*).

• Started as an organised activity in Sweden around 2016

• Spread to other countries in 2018, following increased concern about plastic pollution.

• As a workout, it provides variation in body movements by adding bending, squatting and stretching to the main action of running.

• https://en.wikipedia.org/wiki/Plogging
Plogging in Sweden

https://spark.adobe.com/page/JjtHQYm7ijmVg/
Joggers take litter in their stride with Scandi-trend

Ploggers in Sweden take pleasure showing off their haul after completing an endorphin-releasing round of rubbish collection

Katie Gibbons. February 3 2018, 12:01am, The Times.
https://www.thetimes.co.uk/article/joggers-take-litter-in-their-stride-with-scandi-trend-plogging-5fq06nkds
SECA-PPKS Plogging Eco Run Attracts 350 participants
July 19, 2018, Thursday

The run was co-organised by the Sarawak Electronics and Supporting Industries Companies Association (Seca) and Sarawak Skills Development Centre (PPKS) with participants comprising staff members of Seca, PPKS and the public.

Plastics
18 billion pounds of plastic ends up in the ocean each year. And that’s just the tip of the iceberg.

We made it. We depend on it. We’re drowning in it.
In Life magazine in 1955, an American family celebrates the dawn of "Throwaway Living." Thanks in part to disposable plastics, single-use plastics have brought great convenience to people around the world, but they also make up a big part of the plastic waste that's now choking our oceans.

Yiwu International Trade City, in the eastern Chinese province of Zhejiang, is the world's largest wholesale market for small commodities—and a plastic feast for the eyes. More than 70,000 booths, housed in a series of connected buildings, sell everything from inflatable pools to cooking utensils to artificial flowers. To photographer Richard John Seymour, the market felt both utterly familiar, because its goods are found everywhere, and completely foreign, because of the mind-boggling volume. China is the largest producer of plastic—it accounts for more than a quarter of the global total—much of it exported to the world.

Life Magazine 1955
Source: National Geographic June 2018
Plastic Trash Island Pacific Ocean
The icebergs are reforming.
Great Pacific Garbage Patch
To ride currents, seahorses clutch drifting seagrass or other natural debris. In the polluted waters off the Indonesian island of Sumbawa, this seahorse latched onto a plastic cotton swab—"a photo I wish didn't exist," says photographer Justin Hofman. 

Plastic debris in our ocean can outlast many generations of marine mammals and sea turtles. Please dispose of trash properly and reduce, reuse and recycle whenever possible.

Debris in our Oceans

1. Trash is washed down storm drains by the rain.
2. Storm drains empty into nearby creeks and rivers.
3. Rivers flow into bays and the ocean.
4. Trash in the oceans can entangle or be eaten by marine animals.
EVERY SATURDAY, NO PLASTIC BAG DAY
RM 0.20 per piece
Levels of Roles of Nursing in Sustainable Development

- **Planet, Global**
  - Sustainable Development Goals (17 SDGs)

- **Workplace**
  - Sustainable health and health care

- **Personal & Family**
  - GLOCAL
    - 4Rs – Reduce, Reuse, Recycle, Recover
    - Plastics
    - Plogging
Sustainable Health and Health Systems
Health Systems

Health systems are

- “the ensemble of all public and private institutions and resources,
  - mandated to improve, maintain or restore health”.
- fundamental to achieving and maintaining societal health and welfare,
- key factors for development and economic growth
  - (WHO Regional Office for Europe, 2008, 2015a).
Health Systems and Sustainability

• Health care industry
  • provides the great capacity to heal, but is also
  • a sizable consumer of natural resources.

• The activities of health systems result in positive and negative impacts on the environment within which they are embedded.

  • [link](http://www.euro.who.int/__data/assets/pdf_file/0004/341239/ESHS_Revised_WHO_web.pdf?ua=1)
Health Systems and Sustainability

• The main environmental impacts of health systems come from their
• consumption of energy and resources,
• production of greenhouse gas emissions,
• use and disposal of toxic chemicals, and
• production of waste and wastewater.

http://www.euro.who.int/__data/assets/pdf_file/0004/341239/ESHS_Revised_WHO_web.pdf?ua=1
Vision of Environmentally Sustainable Health System

health systems can improve, maintain or restore health, while minimizing negative impacts on the environment and leveraging opportunities to restore and improve the environment to the benefit of the health and well-being of current and future generations.

Public Health England’s vision of sustainable health and care

The means to achieve the Vision

- reduce carbon emissions,
- minimising waste & pollution,
- making the best use of scarce resources,
- building resilience to a changing climate and
- nurturing community strengths and assets.

“A sustainable health and care system that:
- works within the available environmental and social resources
- protecting and improving health now and
- for future generations.”

Public Health England’s **Three Goals of sustainable health and care**

<table>
<thead>
<tr>
<th>Goal 1:</th>
<th>A healthier environment</th>
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<tr>
<td>Goal 2:</td>
<td>Communities and services are ready and resilient for changing times and climates</td>
</tr>
<tr>
<td>Goal 3:</td>
<td>Every opportunity contributes to healthy lives, healthy communities and healthy environments</td>
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Possible elements of a national environmental sustainability policy for health systems

- Promoting innovative models of care
- Minimising and adequately managing waste and hazardous chemicals
- Promoting an efficient management of resources
- Creating incentives for change
- Sustainable procurement
- Increasing community resilience and promoting local assets
- Reducing health systems' emissions of air pollutants and greenhouse gases
- Engaging the Health workforce as agent of sustainability
- Prioritising disease prevention, health promotion and public health services

Possible elements of a national environmental sustainability policy for health systems

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- Creating incentives for change
- Promoting innovative models of care

Some Results

Sustainability at Kingston Hospital

What did we achieve in 2015?

- 17% Year-on-year reduction in electricity use
- 59% Increase in recyclable and reusable waste produced
- 10% Year-on-year reduction in natural gas use
- Achieved an increase in recycling tonnage from 18 tonnes to 44 tonnes
- New Escher Wing windows will reduce heat loss by 74%
- Become a Green Champion: get in touch via environmental@kingstonhospital.nhs.uk

The Christmas communications at Vera Brown House were extremely successful with consumption maintained at low levels from the 25th-28th December. Everyone made a special effort to switch-off as energy use during this period was lower than typical overnight levels.

Four Principles of Sustainable Clinical Practice

The Campaign for Greener Healthcare has identified four principles which underpin sustainable clinical practice.

1. Disease prevention and health promotion.
2. Patient education and empowerment.
3. Lean service delivery.
4. Preferential use of treatment options and medical technologies with lower environmental impact.

(Mortimer. The sustainable physician. http://wwwclinmedrcpjournalorg/content/10/2/110.full.pdf+html)
## Sustainability in Nursing

<table>
<thead>
<tr>
<th>Antecedents</th>
<th>Attributes</th>
<th>Consequences</th>
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<tbody>
<tr>
<td>• Climate change</td>
<td>• Ecology</td>
<td>• <strong>Education</strong> in the areas of <strong>ecology, environment and sustainable development for nurses</strong></td>
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<tr>
<td>• Environmental awareness</td>
<td>• Environment</td>
<td>• <strong>sustainability</strong> as a part of</td>
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<td>• Confidence in the future</td>
<td>• Future</td>
<td>• nursing academic programs &amp;</td>
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<td>• Responsibility</td>
<td>• Globalism</td>
<td>• in the description of the</td>
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<td>• Willingness to change</td>
<td>• Holism</td>
<td>academic subject of nursing.</td>
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<td></td>
<td>• Maintenance</td>
<td>• Sustainability should also be part</td>
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<td>of national and international healthcare organisations</td>
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Some interventions to make nursing more sustainable may include:

- reducing resource use in your nursing practice
- changing patient pathways for leaner care
- demonstrating ways in which the patient’s knowledge and understanding can contribute to their care, especially in chronic illness
- initiatives that promote prevention
- protecting patients or the public from the health effects of climate change
- sharing your experience of caring for those who’ve suffered as a result of climate change

https://sustainablehealthcare.org.uk/blog/sustainability-series-making-nursing-greener
Levels of Roles of Nursing in Sustainable Development

**Planet, Global**

**Workplace**

**Personal & Family**

Sustainable Development Goals (17 SDGs)

Sustainable health and health care

GLOCAL
- 4Rs – Reduce, Reuse, Recycle, Recover
- Plastics
- Plogging
“Transforming our World: the 2030 Agenda for Sustainable Development"

- including its **17 Sustainable Development Goals (SDGs)** and **169 targets** was

- **adopted on 25 September 2015** by Heads of State and Government at a special UN summit.

- A commitment to **eradicate poverty** and achieve sustainable development **by 2030 world-wide**, ensuring that no one is left behind.

The 5 Ps of Sustainable Development

1. **People**
   - End poverty and hunger in all forms and ensure dignity and equality

2. **Planet**
   - Protect our planet's natural resources and climate for future generations

3. **Prosperity**
   - Ensure prosperous and fulfilling lives in harmony with nature

4. **Partnership**
   - Implement the agenda through a solid global partnership

5. **Peace**
   - Foster peaceful, just and inclusive societies

https://twitter.com/un/status/682925516190437376
Environmental sustainability for the Sustainable Development Goals in the 2030 Agenda

Goal 2. End hunger, achieve food security and improved nutrition and promote sustainable agriculture

Goal 6. Ensure availability and sustainable management of water and sanitation for all

Goal 14. Conserve and sustainably use the oceans, seas and marine resources for sustainable development

Goal 10. Reduce inequality within and among countries

Goal 16. Promote peaceful and inclusive societies for sustainable development, provide access to justice for all and build effective, accountable and inclusive institutions at all levels

Goal 4. Ensure inclusive and equitable quality education and promote lifelong learning opportunities for all

Goal 5. Achieve gender equality and empower all women and girls

Goal 3. Ensure healthy lives and promote well-being for all at all ages

Goal 7. Ensure access to affordable, reliable, sustainable and modern energy for all

Goal 9. Build resilient infrastructure, promote inclusive and sustainable industrialization and foster innovation

Goal 11. Make cities and human settlements inclusive, safe, resilient and sustainable

Goal 1. End poverty in all its forms everywhere

Goal 8. Promote sustained, inclusive and sustainable economic growth, full and productive employment and decent work for all

Goal 12. Ensure sustainable consumption and production patterns

Goal 13. Take urgent action to combat climate change and its impacts

Goal 15. Protect, restore and promote sustainable use of terrestrial ecosystems, sustainably manage forests, combat desertification, and halt and reverse land degradation and halt biodiversity loss

Goal 16. Promote peaceful and inclusive societies for sustainable development, provide access to justice for all and build effective, accountable and inclusive institutions at all levels

Goal 4. Ensure inclusive and equitable quality education and promote lifelong learning opportunities for all

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17 goals; 169 targets; 232 individual indicators
Published in 2017

Cost at Amazon.com:
• USD35.24 (paperback)
• USD 50.37 (Kindle)

Key Features:
• Examines, for the first time, nursing’s role in each of the 17 SDGs
• Etc

• Source: https://www.amazon.com/New-Era-Global-Health-Sustainable-ebook
Universal Health Coverage in Sarawak
Health and Wellbeing: Urban and Rural Settings
Health services contribute to only 20% of a community’s health status.

Local Issue: Health Services in Sarawak

DISTRIBUTION OF GOVERNMENT HEALTH FACILITIES IN SARAWAK

Keys:
- Hospital
- Klinik Kesihatan
- Klinik Desa
- MCHC
- VHT by river
- VHT by road
- WKK

Source: Sarawak Health Department (2015)
Three Dimensions of Universal Health Coverage

Local Issue: Universal Health Coverage

Universal Health Coverage means:

- All people are covered
- There are no barriers to accessing services
- Health services are comprehensive
- All people are protected from financial hardships
- Health services are flexible, innovative, and resilient

Think:
- Remote communities – geographical access – logging camps, plantations
- The poor (rural & urban) – financial access
- Going to the clinics and big hospitals for referrals
- Going home from hospital
UMW, Mercy Malaysia set up mobile clinic in Ba’kelalan, Sarawak

Saturday, 13 Dec 2014

The journey to the area from the nearest town, Lawas, involves driving in four-wheel drives on bumpy roads across four mountains.

A total of 237 people turned up at the mobile clinic by UMW and Mercy Malaysia.
Ways Forward: NGOs and CSOs Roles towards UHC

UHC means that:
- All people are covered
- There are no barriers to accessing services
- Health services are comprehensive
- All people are protected from financial hardship
- Health systems are flexible, innovation and resilient

Communities:
- Urban: Poor/Middle Class/Rich
- Rural: Poor/Middle Class/Rich

SDGs Related to the Social Determinants of Health:
Topics We Have Covered

• Sustainable development
  • Concept, definition, timeline

• Nursing Roles and Contributions to Sustainable development
  • Individual and family level
  • Workplace level
  • Global level
Fish-eye view of the Darul Hana Bridge Kuching