Sustainable diets

A complex challenge

Dairy Day Seminar 2018

What is the issue?

- Significant shifts in the global food and nutrition environment
- Hunger and malnutrition continue to be issues worldwide.
- 870 Million people are chronically undernourished.
- Close to 1 billion people are unable to meet their minimum energy requirements and
- 2 billion suffer from micronutrient deficiencies.

Population segments at greatest risk include young children, pregnant and lactating women, the poor, the sick and the elderly.

- The Food and Agriculture Organization (FAO) predicts that the human population will increase from approximately **7 billion in 2011 to 9.5 billion in 2050.** The growth in population size and affluence will **increase the demand for dairy products by at least 50%.**
- Require innovative solutions in milk production and dairy manufacturing to meet the rising demand for dairy products in a sustainable way.
- According to the World Health Organization (WHO), obesity rates have doubled since 1980. Responsible consumption of dairy products can help manage weight.

870
Million
people are chronically undernourished.

1
Billion
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2
billion
suffer from micronutrient deficiencies

50%
Increase in Demand for Dairy products By 2050

7 billion
2011
9.5 billion
2050.

At risk
- young children,
- pregnant
- lactating women
- poor
- sick
- elderly.

What is a sustainable diet?

Balanced diet → Sustainable diets

Pillars of a sustainable diet?

Four pillars of sustainable diets

1. Nutrition
2. Economical
3. Society
4. Environment

Ideal diet that is nutritionally adequate; economically affordable; socially and culturally acceptable and eco friendly

Terms to grasp

What does *energy dense* mean: Dietary energy per unit weight

If a food has:

More water ➡ less energy dense e.g. liquid milk, juice, vegetables

Less moisture ➡ medium energy dense e.g. meat, cheese, yoghurt

Dry foods ➡ high energy density e.g. cereals, sugar, oils

Food that has a high energy density is often has relatively low nutrient density (has more calories than nutrients)

A food that us nutrient rich = Many nutrients per kilojoule

1. Nutrition

- Many ways to measure food intake

- Nutrient profiling (NP) methods is an approach to determine if foods are nutritionally adequate of a general diet or intake of a populations

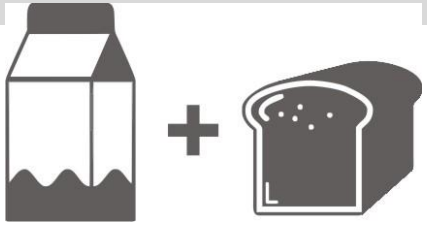
- Most recently NP has been used to justify taxation of sugar sweetened beverages and foods

2. Affordability

- Measure of calories/kiloJoules and nutrients (macro and micro nutrients) per **monetary unit**

- Nutrient rich diets are **more expensive** than diets that have very few calories and also is more costly from an environmental point of view

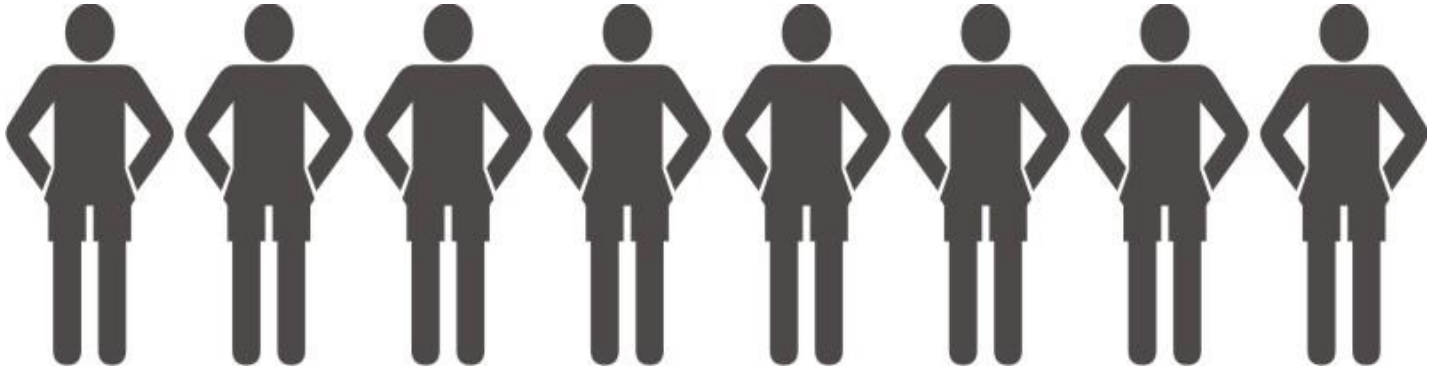
- Foods such as meat, poultry, eggs and dairy **have more nutrients per calorie**



2. Affordability

- BUT require **more water, land and energy** to produce than staple foods such as rice, maize, wheat and grains

- Costlier to produce



3. Cultural and societal acceptability

- Animal-source foods replaced with plant-based foods
- Mediterranean and vegetarian diet are alternative diets
- But **not always culturally acceptable** and can be rejected

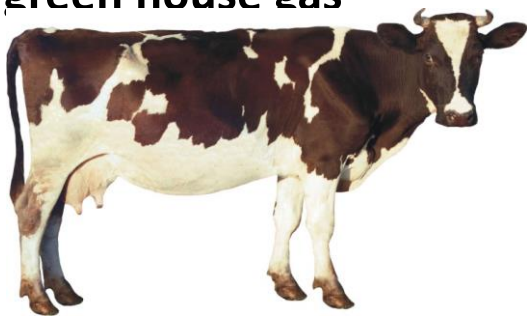
4. Environmentally friendly

- Food production requires water, land and energy

- Sought after as **populations grows**
  - Pollution increases
  - Climate changes

- Livestock production has **greater impact on environment; green house gas emissions; land area and water usage**

- But has greater impact on human health



Dairy and sustainability

- Dairy meets the sustainability criteria in three areas of sustainable diets i.e.
  1. Nutritious
  2. Affordable
  3. Acceptable

Milk, yoghurt and cheese have
- a low energy density but
- contains more nutrients

.....than plant based foods.

Value of dairy

Dairy meets at **least three of the four** criteria defined for sustainable diets.

Nutritious	Affordable	Acceptable	Environment
More nutrients per Unit energy Protein + 6 Minerals + 4 vitamins	Provides highest content of **dietary calcium and high quality protein** per monetary unit	May **be more acceptable than plant proteins** to transitional populations	If **modern farming practices** are applied dairy does not harm the environment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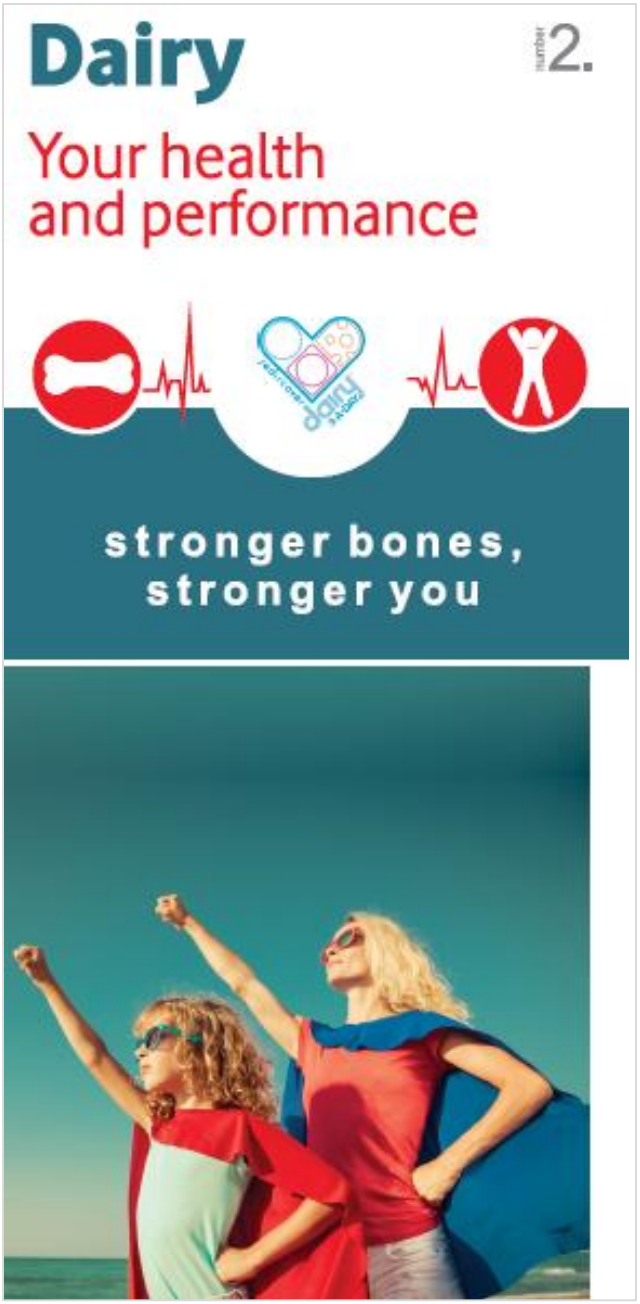
According to a 2013 FAO report, Milk and Dairy Products in Human Nutrition

- Milk and dairy products can be important in **diversifying the diet.**
- They are **nutrient-dense** and
- **provide high quality protein and micronutrien**ts in an
- **easily absorbed form** that can
- benefit **both nutritionally vulnerable people as well as healthy people**
- **when consumed in appropriate** quantities and as
- part of **healthy eating patterns.**

https://www.fil-idf.org/working-areas-strategic/nutrition/dairy-nutrition/

Please take leaflets to distribute at your place of work



Thank you for listening

'Dairy gives you go'

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References used on this presentation
1. Trends: dairy California, Spring 2018
2. Zenith International: presentation IMP June 2018, City of Bath
3. Rabobank: Dare not to dairy, May 2018