

Sustainable Nutrition

Beans & pulses

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Key learning objectives

Aim: to introduce the concept of sustainable nutrition and plant-based diets

Learning objectives:

1. Understand the nutritional benefits of a diverse diet containing more wholegrains and plants.
1. Identify and observe the cooking and soaking times of different types of beans and pulses.
1. Create a range of dishes using the beans and pulses.



Practical task

Concept: Cooking with pulses (soaking & cooking times)

Dish: Indian vegetable platter

Quick description:

- Activity 1: Cooking different versions of an Indian Thali using pulses and beans
- Activity 2: Sensory evaluation



Key things you need to know...



Why do our diets need to change?

Poor diets are estimated to be responsible for **11 million deaths** each year - more than the number of deaths attributable to smoking.

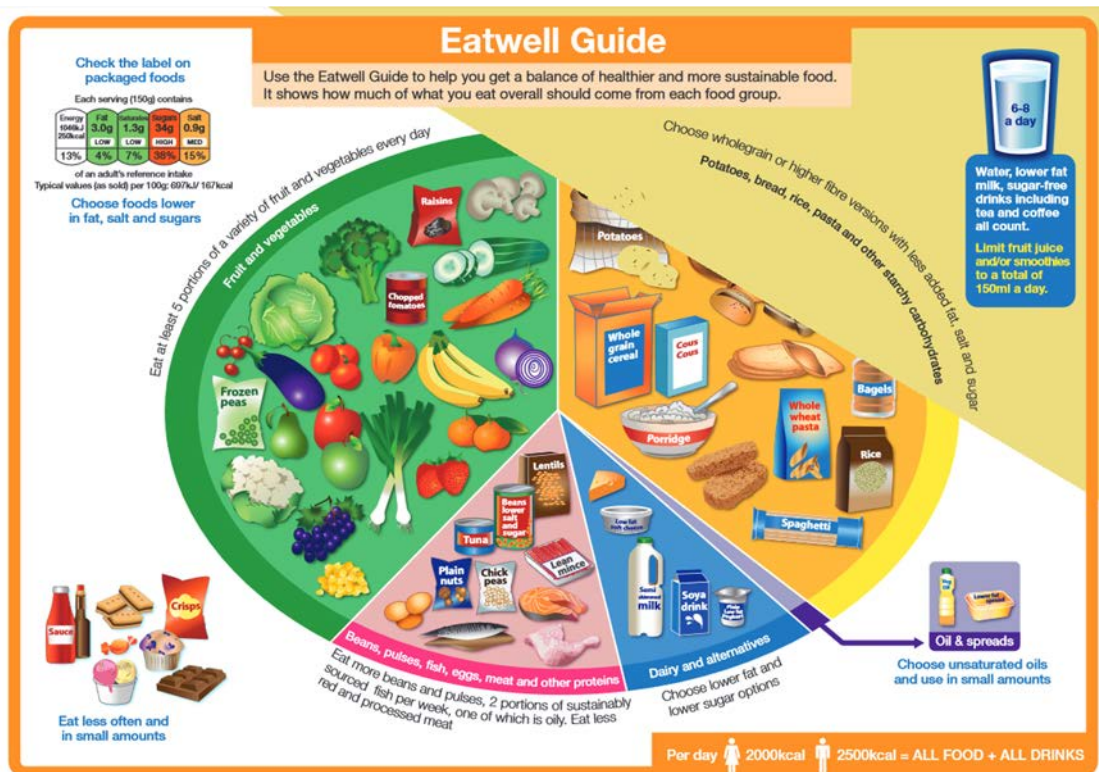
We currently produce enough food to feed everyone, but poor distribution and waste mean the **815 million people are hungry** while **2 billion are overweight or obese**.

For example, in the UK, **one in 10 people** over 40 are living with a diagnosis of **Type 2 diabetes** and **three in five adults** are **overweight or obese**.

Malnutrition (of all types) is **heavily linked to poverty**.



What does a healthier diet look like?



The [UK's Eatwell Guide](#) is a good starting point for understanding what a healthier diet with more sustainable food could look like.



A considerable shift is needed

For example, we typically eat far too few vegetables

According to The Food Foundation, we are still eating far too few vegetables.

HOW MUCH VEG ARE WE EATING?

In the past five years, veg intake has remained fairly static, with children's consumption remaining particularly low.

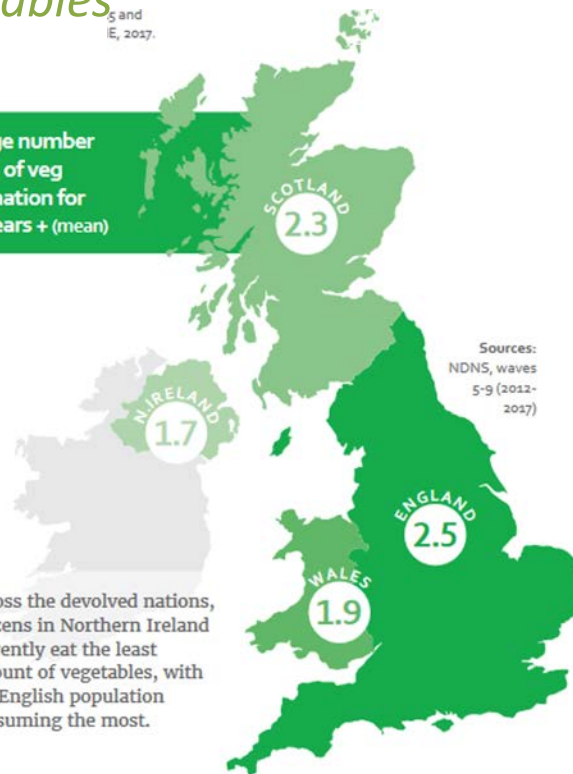
The average number of portions of veg eaten per nation for those 11 years + (mean)

The average number of veg portions eaten per day (mean)

| | 2008-2012 | 2012-2016 |
|----------------------------------|------------|------------|
| ADULTS (>16 YEARS) | 2.5 | 2.6 |
| CHILDREN (11-16 YEARS) | 1.7 | 1.6 |
| CHILDREN (5-10 YEARS) | 1.8 | 1.7 |

Sources: NDNS, waves 1-4 (2008-2012); NDNS, waves 5-9 (2012-2017)

Across the devolved nations, citizens in Northern Ireland currently eat the least amount of vegetables, with the English population consuming the most.



Sources:
NDNS, waves
5-9 (2012-
2017)



Tips for chefs...



The principles of healthy, sustainable menus

Normalise using legumes, grains and nuts to create healthier, sustainable menus



Menu of Change have created a set of [principles for healthy, sustainable menus](https://www.menusofchange.org/principles-resources/moc-principles/).

The following slides include some of their recommendations for the food service industry.



Rethink fruit and vegetables

Put fruit and veg front and centre on the menu, using a diverse mix of produce

- Customers **aren't eating nearly enough** fruit and vegetables — they should be filling half their plates.
- Menus should feature a **diverse mix of produce** – with green leafy vegetables and a mix of colorful fruits and vegetables daily.
- Fruit is **best consumed whole or cut**, fresh and in season, or frozen and preserved without added sugar or salt..



[Menus of Change principle](https://www.menusofchange.org/principles-resources/moc-principles/)



Make wholegrains the norm

Wholegrains offer a healthy alternative to refined carbohydrates

- Menus should offer and highlight **slow-metabolizing, whole, and intact grains**, such as 100 percent wholegrain bread, brown rice, and whole-grain/higher protein pasta
- Use white flour and other refined carbohydrates **sparingly**, as their impacts on health are similar to those of sugar and saturated fats. (The same is true for potatoes!)



[Menus of Change principle](#)



Rethink nuts and legumes

Making nuts and legumes central to your dish is healthy, creates flavour and is a great replacement for animal protein

- **Nuts and legumes are full of flavour**, contain plant protein, and are associated with increased satiety.
- Nuts contain **beneficial fats**, while legume crops contain fiber and slowly metabolized carbohydrates.
- They are an **excellent replacement for animal protein**. And are also good to pair smaller amounts of meat and animal proteins with.



[Menus of Change principle](https://www.menusofchange.org/principles-resources/moc-principles/)



Choose healthier oils

- Using plant oils and other ingredients that contain **unsaturated fats**, such as rapeseed, soy, peanut, and olive oils, as well as featuring fish, nuts, seeds, avocados and whole grains, are simple ways to create healthier menus.
- Butter, cream, lard, and coconut oil—can have a place in healthy cooking if used only **occasionally in limited**, strategic applications.
- **Trans fats** from partially hydrogenated vegetable oils, now labeled a “metabolic poison” by leading medical scientists, have no place in foodservice kitchens



[Menus of Change principle](#)



Serve more different kinds of seafood, sourced sustainably

Chefs can have a positive impact on the environment and public health by expanding their understanding of how to source and use wild-caught and farm-raised fish and shellfish

Serving a *greater variety of responsibly managed and underutilized* small fish like sardines and anchovies, as well as clams, oysters, mussels, mollusks, and other low-trophic species (meaning lower on the food chain) are also good choices for our health and the environment



[Menus of Change principle](#)



Reimagine dairy in a supporting role

Chefs should **leverage the flavour of cheese** (high in saturated fat and sodium) in smaller amounts and minimize the use of butter

Yogurt (without added sugar) is a good choice for professional kitchens, as its consumption is associated with healthy weight

While there is **tremendous innovation** underway to improve dairy production and its impact on the environment, it still has a significant impact.



[Menus of Change principle](#)



Serve less meat less often

- Meat can be enjoyed **occasionally and in small amounts**.
- Choose products from animals raised without the routine use of antibiotics **ideally higher welfare**.
- For beef, choose those that have been grass-fed or primarily pastured, and for poultry choose free range.
- Chefs and menu developers can **rethink how meat is used** by featuring it in smaller, supporting roles to healthier plant-based choices, and experimenting with meat as a condiment

[Menus of Change principle](https://www.menusofchange.org/principles-resources/moc-principles/)



Cut the salt; rethink flavour development from the ground up

Chefs should focus on a range of other strategies to deliver flavour, including:

- Sourcing the best quality, highest-flavor produce
- Working with spices, herbs, citrus, and other aromatics
- Employing healthy sauces, seasonings, and other flavor-building techniques from around the world



[Menus of Change principle](https://www.menusofchange.org/principles-resources/moc-principles/)



Substantially reduce sugary beverages; innovate replacements

Water is the best choice to serve your customers, either plain or with the addition of cut-up fruit, herbs and aromatics, or other natural flavors - but no sugar.

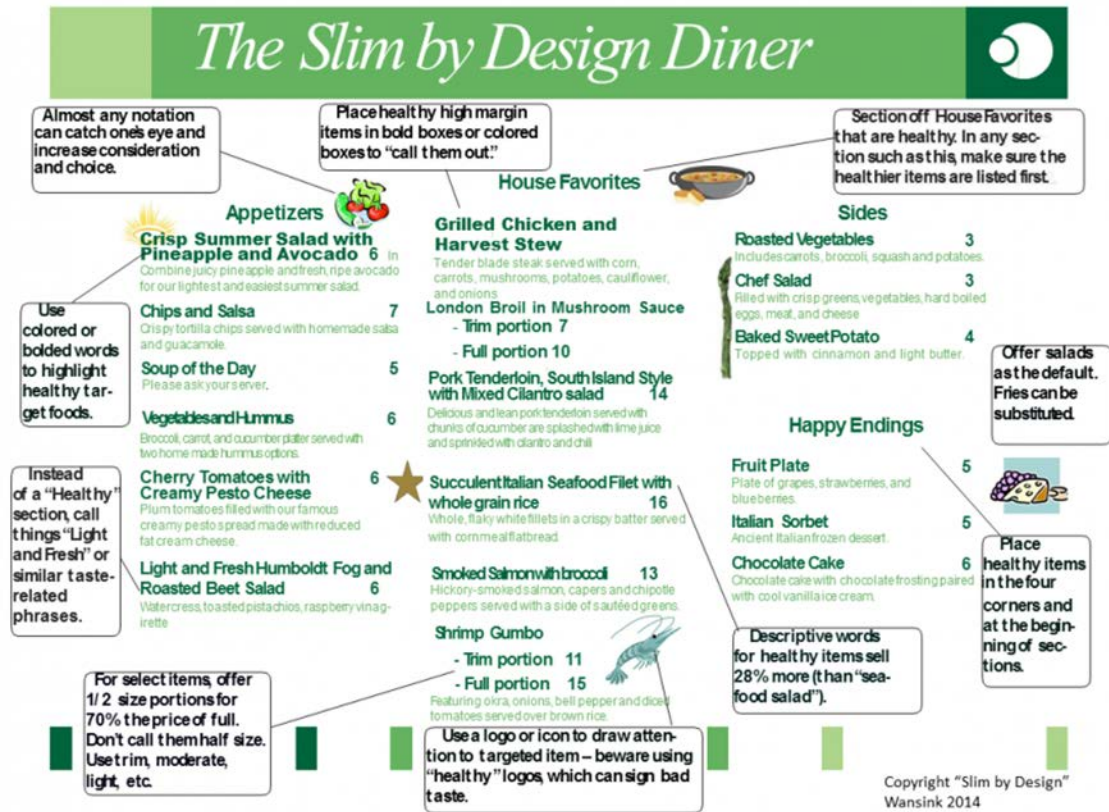
Served plain, coffee and tea are calorie-free beverages containing antioxidants, flavonoids, and other biologically active substances that may be good for health



[Menus of Change principle](#)



Get inventive with encouraging consumers to choose healthier options



These ideas from the author Brian Wansink are routes for guiding consumers towards healthier choices.



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Wansink 2014

Summary: key takeaways

Key things you need to know:

- Our diets are contributing to significant health problems
- There are guides out there, like the Eatwell guide that help to depict what a healthier diet could look like
- A considerable shift is needed in what we eat

Tips for chefs:

- Put fruit and veg front and centre on the menu
- Make whole grains the norm
- Make nuts and legumes central to your dish
- Choose healthier oils
- Serve more different kinds of seafood, sourced sustainably
- Reimagine dairy in a supporting role
- Serve less meat, less often
- Cut the salt, rethink flavour development from the ground up
- Reduce sugary beverages
- Get inventive with encouraging consumers to choose healthier options

