

Waste not, want not!

How to design an effective information-based food waste campaign



food facts for healthy choices



Co-funded by the European Union (under grant agreement No 101082821). Views and opinions expressed are however those of the author(s) only and do not necessarily reflect those of the European Union or the European Health and Digital Executive Agency (HaDEA). Neither the European Union nor the agency can be held responsible for them.



Consider your target audience

This might be based on who wastes the most, the types of behaviours you want to target, who you can reach, etc.



Some ways in which people differ in how much food they waste include:



age

>65 year-olds tend to waste less food 18-24 year-olds tend to waste the most, in particular university students



employment status

some studies indicate that employed people tend to produce more food waste



household composition

households with children produce more waste but less waste per person those who live alone tend to produce more waste



behaviour

those who spend more on eating out & eat more convenience food produce more food waste



Behaviours or outcomes you want to increase or decrease



Are they specific to your target audience?



- monitoring the food people have at home
- meal planning
- shopping lists based on existing inventory



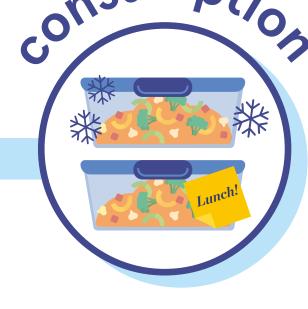
- following the shopping list
- buying misshapen fruit & veg
- impulsive or habitual purchases
- buying more than you need (e.g., bigger packages, bulk buys)



- storage to reduce food waste (e.g., freezing)
- consuming food in time (e.g., 'first in first out' rule)
- correct interpretation of date labelling
- storage of food for too long under suboptimal conditions



- preparing & serving the right amounts of food
- preparing & serving too much or not in line with preferences
- unnecessary waste during preparation



- immediate consumption
- storage & use of leftovers
- food disposal

Measuring food waste

1/2



If you do have direct access to people's food waste, food waste can be measured by:



direct weighing

done by researchers, using a measuring device to determine the weight of food waste



volume assessing

assessing the physical space occupied by food waste & using the result to determine the weight



waste composition analysis

physically separating food waste from other material in order to determine its weight & composition

limitations

- expensive
- easier to implement with samples within the same area
- does not cover food waste outside the measurement site

BUT

usually more accurate & less likely to influence behaviour

Measuring food waste

If you don't have direct access to people's food waste, food waste can be measured by:



surveys

e.g., people estimate the percentage of food their household wasted in a week



diaries

people's daily log of food waste



diaries can be tedious for people to complete, which leads to drop-outs



reliability can be improved by using control groups or asking people to provide weight data



2/2







Communication is tailored to a specific target audience:







inducing guilt works for people who are concerned or who haven't tried to reduce their food waste; optimism works better for people who sometimes try

Combined with other behaviour change strategies:



prompts:

reminders to reduce food waste, e.g., notes on the fridge



social norms:

normalising food waste prevention through text, visuals or role models



commitment:

giving a (public) pledge to change behaviour (e.g., informing social networks on social media)

Message content is:



actionable:

e.g., tips about food storage, recipes using leftovers



supported with relevant resources:
e.g., excel sheet to help people
with meal planning

& what doesn't?

- **x** anything too complicated for consumers
- anything requiring too much work for consumers
- blaming the consumer; instead point to how consumers can help other actors (e.g., by participating in the food waste initiative of retailers)





	Aim/objectives (e.g., significant increase in number of people being aware of the campaign & reporting an increase in meal planning, significant food waste reduction before vs. after intervention) Target audience(s) (e.g., household members): country, city, number of people & critical characteristics if available (age, gender, etc.), any eligibility criteria		What is the effect of the campaign being compared to? (same group before & after; one group exposed, one not; how are people exposed to the campaign?) Measures (average and measures of variance): e.g., changes in targeted behaviour/s, food waste, awareness of campaign, attitudes towards reducing food waste)
	Setting (e.g., at school, cafeterias)		· Baseline measures
	Content of campaign (e.g., types of messages used, other strategies used)		 Measures during the campaign Post-campaign measures Follow-up measures if applicable
	Who is delivering the campaign (e.g., the NGO, any collaborators)		 Type of food waste measured (e.g., just the edible parts or also inedible parts, such as orange peel), food waste composition if available Changes in outcomes between time periods, with significance and p values. Any changes in food waste should be reported as weights and percentages Results of all measures
	Mode of delivery (e.g., personal contact, social media)		
	Duration of campaign (e.g., how long the campaign runs, frequency of contact over a given period)		
	How were people recruited ? Any incentives given for participation?		How the data were analysed – statistical tests performed

References



Cox J., & Downing, P. (2007). Food behaviour consumer research: quantitative phase. *Banbury UK: Waste & Resources Action Programme*; Food Behaviour Consumer Research: Quantitative Phase | WRAP (Accessed 15 Jul 2022).

Baker, D., Fear, J., Denniss, R. (2009). What a waste: an analysis of household expenditure on food. The Australian Institute. Policy Brief, 6.

Birau, M. M., & Faure, C. (2018). It is easy to do the right thing: Avoiding the backfiring effects of advertisements that blame consumers for waste. *Journal of Business Research*, 87, 102–117.

Farr-Wharton, G., et al. (2014). Identifying factors that promote consumer behaviours causing expired domestic food waste. *Journal of Consumer Behaviour*, 13(6), 393-402.

Fonseca, J.R.S. (2013). A Latent Class Model to discover Household Food Waste Patterns in Lisbon City in Support of Food Security, Public Health and Environmental Protection. *International Journal on Food System Dynamics*, 4(3), 184–197.

Graham-Rowe, E., Jessop, D. C., & Sparks, P. (2014). Identifying motivations and barriers to minimising household food waste. *Resources, conservation and recycling*, 84, 15-23.

Hamilton, C., Denniss, R., Baker, D. (2005). Wasteful Consumption in Australia. *The Australia Institute*. http://www.tai.org.au/documents/dp_fulltext/DP77.pdf (Accessed 15 Feb 2018).

Hamerman, E. J., Rudell, F., & Martins, C. M. (2018). Factors that predict taking restaurant leftovers: Strategies for reducing food waste. *Journal of Consumer Behaviour*, 17(1), 94–104.

Hanson, C., Lipinski, B., Robertson, K., Dias, D., Gavilan, I., Gréverath, P., ... & Quested, T. (2016). Food loss and waste accounting and reporting standard. https://flwprotocol.org/wp-content/uploads/2017/05/FLW_Standard_final_2016.pdf (Accessed 15 Feb 2018)

Koivupuro, H.-K., Hartikainen, H., Silvennoinen, K., Katajajuuri, J.-M., Heikintalo, N., Reinikainen, A., Jalkanen, L. (2012). Influence of socio-demographical, behavioural and attitudinal factors on the amount of avoidable food waste generated in Finnish households. *International Journal of Consumer Studies*, 36, 183-191.

Jorissen, J., Priefer, C., Br€autigam, K.-R. (2015). Food waste generation at household level: results of a survey among employees of two European research centres in Italy and Germany. *Sustainability*, 7, 2695-2715.

Mallinson, L.J., Russell, J.M., Barker, M.E. (2016). Attitudes and behaviour towards convenience food and food waste in the United Kingdom. *Appetite*, 103, 17–28.

Melbye, E.L., Onozaka, Y., Hansen, H. (2016). Throwing it all away: exploring affluent Consumers' Attitudes toward wasting edible food. *Journal of Food Products Marketing*, 23(4), 416–429.

Nisa, C. F., Bélanger, J. J., & Scumpe, B. M. (2022). Assessing the effectiveness of food waste messaging. *Environmental Science & Policy*, 132, 224–236.

Neubig, C. M., Vranken, L., Roosen, J., Grasso, S., Hieke, S., Knoepfle, S., ... & Masento, N. A. (2020). Action-related information trumps system information: Influencing consumers' intention to reduce food waste. *Journal of Cleaner Production*, 261, 121126.

Peter, P. C., & Honea, H. (2012). Targeting social messages with emotions of change: The call for optimism. *Journal of Public Policy & Marketing*, 31(2), 269–283.

Quested, T.E., Marsch, E., Stunnel, D., Parry, A.D. (2013). Spaghetti Soup: the complex world of food waste behaviours. *Resources, Conservation and Recycling*, 79, 43–51.

Russell, S. V., Young, C. W., Unsworth, K. L., & Robinson, C. (2017). Bringing habits and emotions into food waste behaviour. *Resources, Conservation and Recycling*, 125, 107–114.

Schmidt, K. (2016). Explaining and promoting household food waste-prevention by an environmental psychological based intervention study. *Resources, Conservation and Recycling*, 111, 53-66.

Tostivint, C., Östergren, K, Quested, T, Soethoudt H, Stenmarck, A., Svanes, E., O'Connor, C. (2016). Food Waste Quantification Manual. https://www.eu-fusions.org/phocadownload/Publications/FUSIONS%20Food%20Waste% 20Quantification%20Manual.pdf (Accessed 15 Feb 2018)

Wonneberger, A. (2018). Environmentalism—a question of guilt? Testing a model of guilt arousal and effects for environmental campaigns. *Journal of Nonprofit & Public Sector Marketing*, 30(2), 168–186.

Check out the full webinar & its material here.