



ANALYSIS

Food and the responsibility deal: how the salt reduction strategy was derailed

The food we eat is now the biggest cause of death and ill health in the UK, owing to the large amounts of salt, saturated fat, and sugars added by the food industry. **Graham MacGregor**, **Feng He**, and **Sonia Pombo-Rodrigues** discuss the Food Standards Agency's successful salt reduction strategy and how Andrew Lansley and the coalition government's responsibility deal has stalled its progress. They call for urgent action to protect and improve our nation's health

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Poor diet is now the biggest cause of death and ill health in the United Kingdom and worldwide.¹ Eating too much salt and saturated fat raises blood pressure and cholesterol, respectively, both of which are leading risk factors for death.³ Consuming too much energy from unnecessary sugar and fat causes obesity and type 2 diabetes, a rapidly increasing cause of death and disability.⁴

Most of the foods that industry currently provides are very high in salt, fat, and sugars and are therefore more likely to cause cardiovascular disease and predispose to cancer than healthier alternatives. This is particularly true for people of low socioeconomic status as they tend to eat more cheap, processed foods. The food industry is the biggest and most powerful industry in the world, so robust mechanisms should be set up to control it in a similar way to the tobacco industry. If the food industry were made to produce healthier food, it would result in major reductions in both cardiovascular disease and cancer, as well as healthcare costs.

The UK Food Standards Agency (FSA) was set up in 2000 to deal with bovine spongiform encephalopathy and was also made responsible for nutrition. It was made independent from ministerial control but could report to parliament through the public health minister. The independent Scientific Advisory Committee on Nutrition (SACN) was set up at the same time to advise both the FSA and the government on the evidence for nutrition and health. The FSA had an independently elected board, which decided on policy in open meetings. Policy was then actioned by the FSA in conjunction with the food industry and non-governmental organisations. The FSA became a world leader in improving nutrition, in particular pioneering the reduction in the amount of salt added to food by industry. In this article, we describe the UK's successful salt reduction programme under the FSA and how Andrew Lansley and the

coalition government have taken a major step backwards with the "responsibility deal."

Salt reduction—a successful public health policy

In 1994 the Committee on Medical Aspects of Food and Nutrition Policy (COMA) recommended a reduction in salt intake to <6 g/day (box). This recommendation was rejected by the Department of Health and the Conservative government in 1996. This led to the setting up of CASH (Consensus Action on Salt and Health), a non-governmental organisation with members including most of the leading experts on salt and blood pressure in the UK to try to reverse this decision. As a result, in 2001 Liam Donaldson, chief medical officer, re-endorsed the recommendation made by COMA, and it was agreed with John Krebs, chair of the FSA, that salt reduction would be the first of several pioneering nutritional policies that the FSA would take on. SACN was then asked to review all the evidence on salt and health.

In 2003 SACN reported that the evidence of salt raising blood pressure was strong, and the FSA formally adopted salt reduction as one of its major nutritional policies. ¹¹ ¹² Discussions about how salt intake should be reduced were held with CASH and other organisations. After considerable debate it was decided that industry should be given voluntary salt targets but that the FSA and non-governmental organisations should be responsible for close monitoring and enforcement of the targets to ensure that all the major food companies would be involved and that they would all aim for the same targets. ¹¹

The strategy was to set specific targets (around 10-20%) for the reduction of salt added to each of the 85 categories of food, to be achieved in four years. After two years, meetings would be

UK salt reduction timeline

1994—COMA recommended a reduction in salt intake to <6 g/day to reduce cardiovascular disease

1996—The Department of Health rejected COMA's recommendations on salt. CASH was set up

2000-FSA was set up

2001—After lobbying from CASH, the chief medical officer endorsed COMA's recommendations on salt. The FSA took on salt reduction as one of its first nutritional policies, and SACN was asked to review all evidence on salt

2003—SACN's report on salt and health was published. CASH and FSA developed a salt reduction strategy

2005—FSA, with input from CASH, developed salt targets for 85 categories of food

2006—FSA published the salt targets for industry to achieve by 2010

2008—FSA revised the targets to be achieved by 2012

2009—FSA published the salt targets for 2012

2010—Andrew Lansley was appointed secretary of state for health. Nutrition policy transferred from the FSA to the Department of Health in England and Wales. Salt targets for 2014 should have been set

2011—Responsibility deal was launched. Lansley wanted to scrap the salt targets for 2012

2012—After strong lobbying from CASH, salt targets for 2012 were accepted, but the Department of Health refused to set new salt targets. Lansley left the department

2013—Anna Soubry, minister for public health, agreed to set new salt targets

2014—Department of Health published the salt targets for 2017

COMA=Committee on Medical Aspects of Food and Nutrition Policy; CASH=Consensus Action on Salt and Health; FSA=Food Standards Agency; SACN=Scientific Advisory Committee on Nutrition.

held with the industry to review progress and set targets for another 10-20% reduction to be achieved two years after the previous targets. This cycle would be continued until the target of 6 g/day of salt intake for the adult population was achieved. This policy of unobtrusive reformulation has the advantage that the public can go on eating the same foods while their salt intake falls.

After extensive discussions with the food industry this policy was accepted, and the first targets were published in 2006 to be achieved by 2010. Many other countries, including Argentina, Australia, Brazil, Canada, Chile, South Africa, and the United States, have since adopted the salt reduction model that the FSA and CASH pioneered. A

At the same time the FSA set up robust mechanisms to measure the effectiveness of their policies—specifically, monitoring the reduction of salt in processed foods and measuring 24 h urinary sodium excretion in a random sample of the population. The salt content of many food products was reduced by around 20-40% in the 7-8 years after the policy was introduced. For example, the salt content in bread—the biggest contributor of salt to the UK diet—fell by 20% from 2001 to 2011 (fig 1 \parallel). $^{15\ 16}$

The reductions have been made slowly, with no reported loss of sales by the food industry. ¹⁷ The average salt intake, measured by 24 h urinary sodium in a random sample of the adult population, fell by 15%, from 9.5 g/day in 2003 to 8.1 g/day in 2011. ¹⁸ This was accompanied by a fall in population blood pressure and mortality from stroke and ischaemic heart disease (fig 2↓). ¹⁹ The FSA and the National Institute for Health and Care Excellence estimated that salt reduction campaigns have prevented around 9000 deaths due to stroke and ischaemic heart disease a year and resulted in annual healthcare savings of around £1.5bn (€2.1bn; \$2.2bn) in the UK. ²⁰ The Department of Health states that reducing salt intake in adults by just 1 g/day will prevent 4147 premature deaths each year in the UK alone. ²¹ Revised targets were set in 2008 to be achieved by 2012. ¹³ ²²

Responsibility deal

When the coalition government was formed in 2010 Andrew Lansley was appointed secretary of state for health, and he moved the responsibility for nutrition from the FSA to the Department of Health. This disrupted the salt reduction programme, making it unclear who would be responsible for

the policy. In 2011 Lansley launched the responsibility deal, whereby he made the alcohol and food industries responsible for reducing alcohol consumption and improving nutrition, respectively.²³ As a result, salt reduction lost momentum. The majority of non-governmental organisations that initially signed up to the deal subsequently withdrew over concerns that the interests of industry had been prioritised over public health and that no commitment was made on alternative actions if the pledges did not work. The food network of the responsibility deal is overseen by a high level steering committee that meets 4-5 times a year. Of great concern was that the committee was dominated by the food industry after the withdrawal of so many non-governmental organisations.²⁴

CASH had several meetings with Lansley and the Department of Health between 2010 and 2012, during which Lansley said that he wanted to scrap the salt targets for 2012. After strong lobbying from CASH he agreed to accept them but refused to set new targets for 2014. He also relaxed the reporting mechanisms, enabling the food industry to present their own feedback, which made the information harder to analyse. This lack of clarity resulted in many companies stopping or slowing down their planned reductions in salt added to foods.²⁵

The responsibility deal seemed to be a way of getting the food industry involved in improving nutrition without the Department of Health having to take much responsibility. This gave the food industry the potential to make exaggerated claims on what they were achieving. Throughout the salt target meetings in 2013 it became clear that some companies had failed to meet the 2012 targets, and little was done about it.²⁶

When Lansley left the Department of Health in 2012, Anna Soubry was appointed minister for public health and agreed to reset the salt targets. New targets were set in 2014 to be achieved by 2017.²⁷ But many of the targets were not as low as originally suggested by the Department of Health and CASH, owing to apparent food industry lobbying. Furthermore, the department refused to provide any funding to investigate technical problems raised by the food industry, such as the minimal level of salt necessary to inhibit *Clostridium botulinum* in meat products.²⁶

The lack of targets for 2014, and the fact that some food products had already met their 2012 targets, meant that companies had no need to make any further reductions. ¹⁵ ¹⁶ ²⁷ As a result, four years of the salt reduction programme were lost. Based on the trend of salt reduction between 2005 and

2011 (1.4 g/day, assuming no change between 2001 and 2005), ¹⁶ we estimate that over the lost four years salt intake would have been further reduced by around 0.9 g/day. If actual salt reduction was zero over this period, the lost 0.9 g/day corresponds to approximately 6000 deaths from stroke and heart attack that could have been prevented, based on NICE estimations. ²⁰ Over 4000 of those deaths would have been premature. ²¹

Additionally, there has been very poor sign-up to the 2017 salt targets, with big companies such as Unilever, McDonalds, and Kellogg's failing to publicly commit to the responsibility deal. The food industry does not think that they or their competitors need to comply as there is no enforcement or proper monitoring of the programme.

The future

It is vital that health professionals, politicians, and the food industry are made more aware that the food we eat is currently the single biggest cause of death and ill health in the UK. It is therefore imperative that responsibility for nutrition be handed back to an independent agency, where it is not affected by changes in government, ministers, or political lobbying.

Members of the food industry have said that they are keen to reformulate their foods to make them healthier. All they require is to be on a "level playing field" with the other major companies, so that they can make their foods healthier in a structured, incremental way. They need to be assured that there are proper reporting mechanisms in place and that all of the companies are being monitored equally. Enforcement is required, and if it doesn't work, regulation or legislation must be enacted. In South Africa the same global companies that exist in the UK have opted for a regulated system over voluntary salt targets.

Lansley and the coalition government have been responsible for a major step backwards in public health nutrition. But we could still make the UK the leading country in the world for improving the food we eat by having an independent agency free from political pressure and influence from the food industry. The FSA briefly exemplified that kind of agency. It is vital that the UK continues its incremental progress in salt reduction, successfully pioneered by the FSA and CASH, and the model should be adapted for both added sugars and fat, particularly saturated fat. This will reduce energy intake and lower the incidence of obesity and type 2 diabetes. A reduction in saturated fat will lower population cholesterol levels and reduce ischaemic heart disease. Both of these will result in major improvements in public health and major cost savings to the health service.

Key messages

Most of the foods that industry currently provide are very high in salt, fat, and sugars and are therefore more likely to cause cardiovascular disease and predispose to cancer than healthier alternatives

The UK's salt reduction programme, pioneered by the FSA and CASH, has led to a significant reduction in population salt intake, accompanied by reductions in blood pressure and cardiovascular mortality

The programme has been set back by the coalition government's decision to hand power back to the food industry as part of the responsibility deal

An independent agency for nutrition with a transparent monitoring programme is urgently needed to improve the food that we eat Contributors and sources: GAM wrote the first draft and all authors contributed to the revision of the manuscript.

Competing interests: All authors have completed the ICMJE uniform disclosure form at www.icmje.org/coi_disclosure.pdf (available on request from the corresponding author) and declare no support from any organisation for the submitted work and no financial relationships with any organisations that might have an interest in the submitted work in the previous three years. FJH is a member of Consensus Action on Salt and Health (CASH) and World Action on Salt and Health, both of which are non-profit charitable organisations. She does not receive any financial support from CASH or WASH. GAM is chairman of the non-profit charitable organisations Blood Pressure UK, CASH, WASH, and Action on Sugar. GAM does not receive any financial support from any of these organisations. SPR is an employee of CASH.

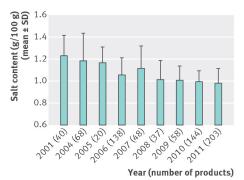
- Stuckler D, Nestle M. Big food, food systems, and global health. PLoS Med 2012;9:e1001242.
- 2 Institute for Health Metrics and Evaluation. Dietary risks are leading cause of disease burden in the US and contributed to more health loss in 2010 than smoking, high blood pressure, and high blood sugar. www.healthdata.org/news-release/dietary-risks-areleading-cause-disease-burden-us-and-contributed-more-health-loss-2010.
- 3 Lim SS, Vos T, Flaxman AD, et al. A comparative risk assessment of burden of disease and injury attributable to 67 risk factors and risk factor clusters in 21 regions, 1990-2010: a systematic analysis for the Global Burden of Disease Study 2010. Lancet 2012;380:2224.60
- 4 Finucane MM, Stevens GA, Cowan MJ, et al. National, regional, and global trends in body-mass index since 1980: systematic analysis of health examination surveys and epidemiological studies with 960 country-years and 9.1 million participants. *Lancet* 2011;377:557-67.
- Mozaffarian D, Capewell S. United Nations' dietary policies to prevent cardiovascular disease. BMJ 2011:343:d5747.
- 6 Ji C, Kandala NB, Cappuccio FP. Spatial variation of salt intake in Britian and association with socioeconomic status. BMJ Open 2013;3:e002246.
- 7 World Health Organization. WHO framework convention on tobacco control. www.who int/fctc/about/en/.
- 8 Health Education Authority. Nutritional aspects of cardiovascular disease. 1994. www nice.org.uk/proxy/?sourceUrl=http%3A%2F%2Fwww.nice.org.uk%2Fnicemedia% 2Edocuments%2Fnutritioncardiodisease.pdf.
- 9 Consensus Action on Salt and Health. www.actiononsalt.org.uk.
- 10 MacGregor GA, Sever PS. Salt—overwhelming evidence but still no action: can a consensus be reached with the food industry? CASH (Consensus Action on Salt and Hypertension). BMJ 1996;312:1287-9.
- 11 Food Standards Agency. UK salt reduction initiatives. www.food.gov.uk/multimedia/pdfs/ saltreductioninitiatives.pdf.
- 12 Scientific Advisory Committee on Nutrition. Salt and health. 2003. www.sacn.gov.uk/pdfs/sacn_salt_final.pdf.
- 13 Food Standards Agency. New salt reduction targets published. 21 Mar 2006. http://webarchive.nationalarchives.gov.uk/20120206100416/http://food.gov.uk/news/newsarchive/2006/mar/salttargets.
- 14 Webster J, Trieu K, Dunford E, Hawkes C. Target salt 2025: a global overview of national programs to encourage the food industry to reduce salt in foods. Nutrients 2014;6:3274-87.
- 15 Brinsden HC, He FJ, Jenner KH, MacGregor GA. Surveys of the salt content in UK bread: progress made and further reductions possible. BMJ Open 2013;3:e002936.
- 16 He FJ, Brinsden HC, MacGregor GA. Salt reduction in the United Kingdom: a successful experiment in public health. J Hum Hypertens 2014;28:345-52.
- 17 Scottish Food and Drink Federation. Highland baker reduces salt content of bread products by 20%. www.sfdf.org.uk/sfdf/Macleans%20bread_bread_4.pdf.
- 18 Department of Health: Assessment of dietary sodium levels among adults (aged 19-64) in England, 2011. www.gov.uk/government/publications/assessment-of-dietary-sodium-levels-among-adults-aged-19-64-in-england-2011.
- 19 He FJ, Pombo-Rodrigues S, MacGregor GA. Salt reduction in England from 2003 to 2011: its relationship to blood pressure, stroke and ischaemic heart disease mortality. BMJ Open 2014;4:e004549.
- National Institute for Health and Clinical Excellence. Prevention of cardiovascular disease. Jun 2010. http://guidance.nice.org.uk/PH25.
- 21 Department of Health. Public health responsibility deal. F9. Salt reduction 2017. https://responsibilitydeal.dh.gov.uk/pledges/pledge/?pl=49.
- 22 Food Standards Agency. Salt reduction targets. 18 May 2009. http://webarchive.nationalarchives.gov.uk/20120206100416/http://www.food.gov.uk/scotland/scotnut/salt.saltreduction.
- 23 Department of Health. Responsibility deal. http://webarchive.nationalarchives.gov.uk/ 20130107105354/http://responsibilitydeal.dh.gov.uk/.
- O'Dowd A. Government's public health responsibility deal is met with scepticism. *BMJ* 2011;342:d1702.
 Department of Health. Public health responsibility deal. https://responsibilitydeal.dh.gov
- Department of Health. Public health responsibility deal. https://responsibilitydeal.dh.gov.uk/salt-target-categories/.
 Department of Health. Public health responsibility deal. Salt targets review meetings.
- https://responsibilitydeal.dh.gov.uk/salt-targets-review-meetings/.
 Food Standards Scotland. 2017 salt targets. www.foodstandards.gov.scot/2017-salt-
- 27 Food Standards Scotland. 2017 salt targets. www.foodstandards.gov.scot/2017-salt targets.

Accepted: 25 March 2015

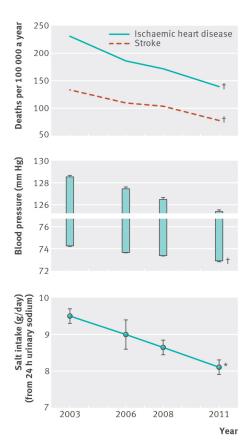
Cite this as: BMJ 2015;350:h1936

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Figures



Changes in salt content of bread sold in UK supermarkets. SD=standard deviation



Changes in salt intake, blood pressure, and deaths due to stroke and ischaemic heart disease in England from 2003 to 2011. *P<0.05, †P<0.001 for trend.