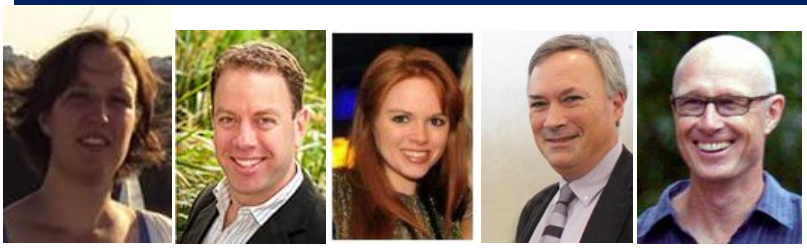
WN *Sick societies*

Volume 6, Number 3, March 2015
Journal of the World Public Health Nutrition Association
Published monthly at www.wphna.org

Inforrmas

Measuring the drivers of obesity, disease, health, well-being



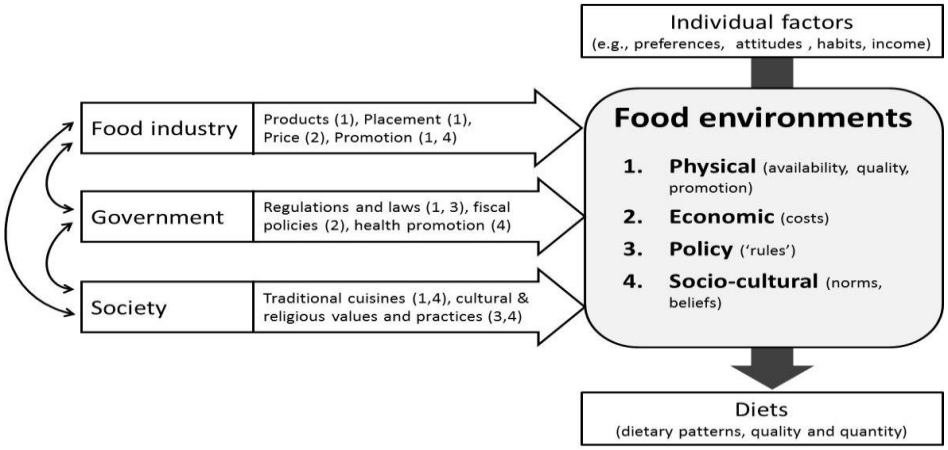
Stefanie Vandevijvere[1], Gary Sacks'[2] Hannah Brinsden[3], Tim Lobstein[3], Boyd Swinburn [1,2]

[1] School of Population Health, University of Auckland, New Zealand
[2] WHO Collaborating Centre for Obesity Prevention, Deakin University, Melbourne, Australia
[3] World Obesity Federation, London, UK
Email: s.vandevijvere@auckland.ac.nz

Access September 2014 Feedback Boyd Swinburn et al on INFORMAS here
Access February 2015 The Lancet Obesity presentation Boyd Swinburn here

The food supplies and environments of most high- and middle-income countries now include high proportions of easily accessible, inexpensive, heavily promoted, energy-dense, nutrient-poor food products high in fat, saturated fats, sugars, or salt. These are the major drivers of unhealthy diets and energy overconsumption (1,2) and thus high levels of obesity and diet-related chronic diseases. ('Food environments' means the physical, economic, policy and socio-cultural surroundings, opportunities and conditions that influence people's food and drink choices and nutritional status).

Figure 1
Food environments and what influences them



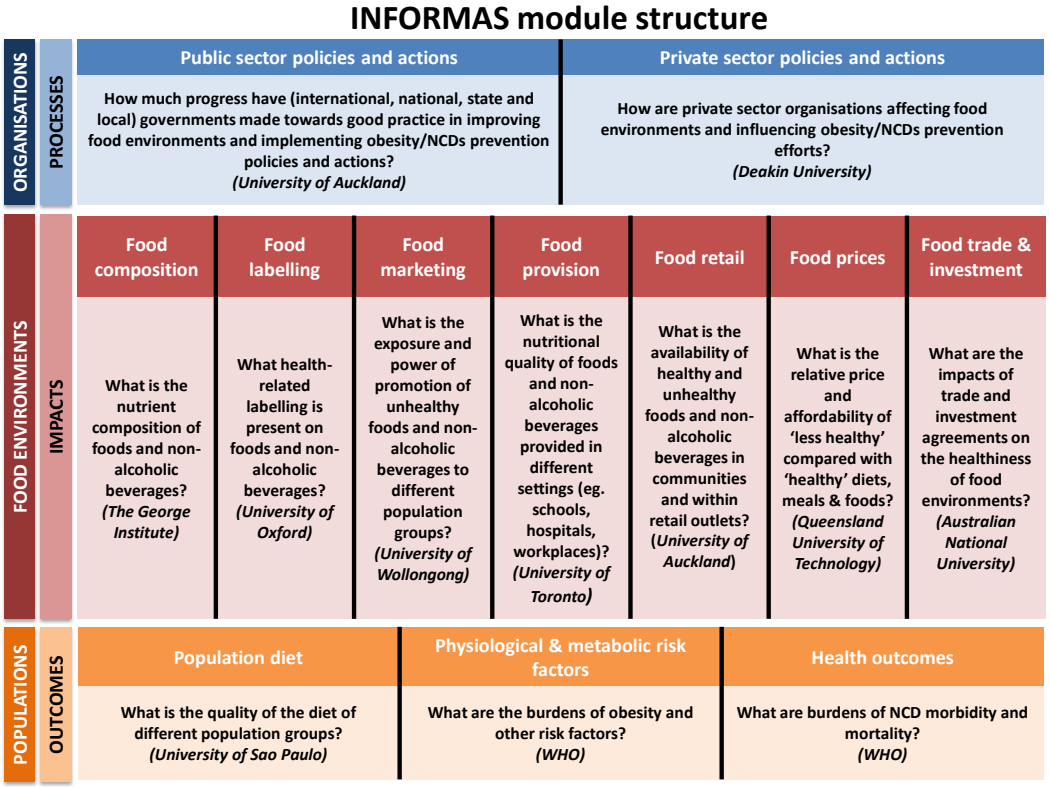
Improvement of population dietary patterns needs comprehensive actions targeted at aspects of food environments that increase risk of obesity, such as unhealthy food composition, prices, and marketing of unhealthy foods. Substantial changes are needed to meet even the modest global targets set by the World Health Organization to halt the rise in adolescent and adult obesity and diabetes (3). In countries where food supplies and environments are not yet entirely dominated by ultra-processed food products, traditional diets and national food sovereignty need to be protected.

Government and industry are the actors that have most impact on food environments (See Figure 1, above).There is consensus on the general areas for action. Many policies to change food environments in order to reduce obesity are likely to be very effective and economical (4-6). But action has been slow and inadequate, mostly due to successful pressure of industry and supportive media on governments to refuse or minimise regulations that could reduce profitability (7,8).

The INFORMAS initiative

World Health Organization monitoring of chronic disease risk factors (3) does not include food environments and policies. The purpose of INFORMAS (International Network for Food and Obesity/NCDs Research, Monitoring and Action Support) (1) is to fill this gap, by using social, economic and other indicators that are more responsive to policy changes than indicators such as mortality. An objective of INFORMAS is to report on food environments in each participating country, and compare the country's record (such as on food marketing to children, or salt in the food supply) to international best practice.

Figure 2
INFORMAS



The University of Auckland is overall responsible for INFORMAS and takes the lead for two of its modules (See Figure 2, above). Eight other universities are leading the other modules. Experts from low and middle income countries are included in the foundation group. INFORMAS is under the aegis of the World Obesity Federation's policy and prevention section, and is supported by the World Cancer Research Fund and Consumers International. Rockefeller Foundation funding has enabled the development of the monitoring structure, engagement with international leaders, development of frameworks and indicators, the official launch at the Bellagio Center in November 2012, and publication of the 14 foundation papers as open access in *Obesity Reviews* (9). Protocols, databases, web platforms and communication tools are now being developed and pilot tested. From this year of 2015 onwards, INFORMAS will be implemented in New Zealand as the first ever national survey on food environments and policies (10), with Fiji, Thailand, Mexico and Chile also planned.

A set of core principles have guided the development of the INFORMAS framework and methods. These include independence from commercial interests, consistency of data collection and analysis approaches, collaborative decision-making within the network, priority given to knowledge translation, and a focus on capacity building (1).

Table 1

INFORMAS modules, methodology and indicators

MODULE	METHODOLOGY	INDICATORS
Process modules: Evaluating policies and actions of public and private sectors		
Public sector policies and actions	*Healthy Food Environment Policy Index* (Food-EPI): evidence collection; government offic validate; independent performance rating workshops; prioritization of actions; feedback results to government	Extent of implementation (very little if any, low, medium, high) for 42 policy and infrastructure good practice indicators; Proposed priority policy and infrastructure support actions for government
Private sector actions and practices	Document and website analysis, interviews with food companies and others in the food system, evidence of the corporate political activity of the food industry. Potential link to the *Access to Nutrition Index (ATNI,* (www.accesstonutrition.org) being explored.	Nature and extent of private sector actions and practices in various domains e.g. food composition, food promotion, food labelling. Additional indicators of the political activity of the food industry related to public health policies and outcomes.
Impact modules: Measuring key aspects of food environments		
Composition	The Global Food Monitoring large brand-specific database (George Institute for Global Health) is analysed for indicator foods and food categories (currently 209,755+ food products across 9 countries included).	Sodium, fat, saturated and trans fat, (free) sugar, energy content and portion size of packaged foods and meals by country, by food category, brand, by company, over time.
Labelling	Packaged foods (pictures of foods as bought) are analysed using a standard taxonomy for classifying nutrition labelling components, including nutrition and health claims, developed by INFORMAS. Fast food restaurants: stratified national sample	Frequencies of health and nutrition claims, signposts etc. on healthy vs unhealthy foods Positioning and format of labelling information Nutrition (e.g. kJ) labelling on fast food outlet menus.
Marketing	Analysis of marketing frequency of unhealthy food products through television, radio, outdoor advertising, sport sponsorship, Internet and new media, food packages; analysis of the power of different advertisements (eg celebrities, cartoons, advergames).	Nature and extent of food marketing to children through different media (Frequency and number of ads for healthy versus unhealthy foods and marketing techniques used per hour/site/ location/time period (e.g. peak viewing times)); power of advertisements (e.g. characters, premiums)
Provision	Stratified random sample of schools and public sector settings: food policy analyses, analyses of menus and foods provided and sold versus existing nutrition - food-based and/or nutrient-based) standards/guidelines.	Strength of policies and proportions of foods meeting national nutrition (food-based and/or nutrient-based) standards/ guidelines.
Prices	Modelling of dietary guidelines and of current population intakes converted to family menus and shopping basket price surveys.	Cost and affordability of: 'healthy' vs. 'current' population diets; price differential between healthy vs. unhealthy foods/meals.
Retail	Stratified random sample of areas, density and proximity of different food outlet types. In-store healthy vs. unhealthy food availability, prominence (shelf space, location of foods).	Density of (un)healthy food outlets (e.g. fast food and convenience stores around schools); shelf space, percent of junk food free check-outs
Trade and investment	Analyses of chapters in ratified trade agreements via trade ministries and the World Trade Organization online database.	Risk analysis of existing agreements, Indicators related to trade in goods, trade in services and foreign direct investment, domestic protections and support, policy space and governance.

How INFORMAS works

The two process modules (see Table 1 above), measure implementation of priority policies and actions by governments and industry. The seven impact modules measure key aspects of food environments. These are food composition; food labelling; food promotion; food provision (such as in schools and early childhood education settings); retail food availability in communities and in-store; food prices and affordability of healthy compared with unhealthy diets; and food-related components of trade and investment agreements (See Figure 2, above).

The public health rationale for including these modules within the INFORMAS framework has been outlined in the *Obesity Reviews* supplement (9). Other impact modules (for example, food production) may be added at a later stage. INFORMAS has also developed an outcome module to monitor population diet quality between countries and over time.

Most of these modules are step-based, with a 'minimal' approach guiding data collection in all participating countries, and 'expanded' and 'optimal' approaches for more detailed data collection and analysis as resources and capacity permit. (A short summary of the methods and indicators for each of the INFORMAS process and impact monitoring modules is in Table 1, above).

Four of the impact modules – food provision, retail, prices, and promotion – lend themselves to 'environmental equity' indicators to check progress towards reducing diet-related health inequalities in countries. These are shown by some New Zealand examples (Table 2, below).

INFORMAS indicators for these modules will be assessed by tertiles of area deprivation index or school deciles. This will allow links between policies and equity outcomes to be analysed. The Healthy Food Environment Policy Index (Food-EPI), the tool used within the public sector module of INFORMAS, also includes equity indicators. For example, the leadership domain assesses whether reducing health inequalities is a government priority, and the monitoring domain assesses whether progress on reducing health inequalities is regularly monitored.

Many of the modules can be undertaken as stand-alone studies or surveys. But the intention is that each of the modules will be implemented concurrently in each participating country, so that data can be integrated to form a national survey on food environments and policies (10).

Table 2

Environmental equity indicators

As used in New Zealand

MODULE	ENVIRONMENTAL EQUITY INDICATORS
Provision	• Quality of nutrition policies implemented in high vs. low decile (1) schools • Percent of foods meeting food- or nutrient-based standards, high vs. low decile schools
Retail	• Frequency of 'food deserts' and 'food swamps' in least, average, most deprived, using NZDep (2) areas and areas with high versus low per cent of Maori and Pacific residents • Relative density of unhealthy food outlets in a buffer zone around high (8-10), mid and low decile schools • Ratio of shelf space devoted to healthy versus unhealthy foods by NZDep tertile (based on location supermarkets) • Percentage of junk-food free check-outs by NZDep tertile (based as above)
Prices	• Price differentials (and affordability) between 'healthy' foods and meals and 'less healthy' foods and meals by NZDep tertiles (based on location of supermarkets) • Price differentials and affordability of healthy versus current, less healthy diets for Maori, Pacific and NZ European adults (from national nutrition survey data)
Promotion	• The number of outdoor advertisements for unhealthy foods in a buffer zone of 500 metres around low, mid and high decile schools

(1) Decile: the extent to which a school draws its students from low socio-economic communities
(2) NZDep: New Zealand area deprivation index

Holding governments to account

Effective government policies are essential to increase healthiness of food environments. An expert panel including over 50 independent public health experts with representatives from medical associations and non-government organisations, has completed a detailed assessment of how the New Zealand government is doing, compared with international best practice across 13 key areas of action, using the Healthy Food Environment Policy Index (Food-EPI) (11). This is made up of a policy component with seven domains on specific aspects of food environments (the impact modules of INFORMAS), and an infrastructure support component with six domains (governance, leadership, funding and resources, monitoring and intelligence, platforms for interaction, health-in-all-policies) based on World Health Organization building blocks for strengthening health systems.

Good practice statements have been developed for each domain. These were revised in a week-long consultation process with international experts, including from low and middle income countries. The New Zealand expert panel ratings for each of the 42 policy and infrastructure support good practice indicators, were informed by documented evidence, validated by government officials and international best practice exemplars. Some of these exemplars, or 'benchmarks', used during the rating workshops are given in Box 1, below.

Box 1

Best practices

- Argentina, South Africa. Targets to reduce sodium in a range of food groups by means of regulation
- New Zealand, Australia. Nutrition profiling system to stop unhealthy food products making health claims
- UK, Ecuador. Multiple traffic light front-of-pack labelling.
- Norway, Sweden. Ban since 1990 on food advertising that targets children age younger than 12.
- Mexico. As from 2014, 10% tax on soft drinks and 8% tax on junk food. Revenue reinvested in public health
- Brazil. Law enacted in 2001 requires that 70% of the food in school meals be unprocessed. Law enacted in 2009 requires that 30% of programme budget to be used to purchase fresh foods directly from family and cooperative farms
- England. National child measurement programme established in 2006 aims to measure weight and height of all children in the first (4-5 years) and last years (10-11 years) of primary school. In 2011-2012, 565,662 children at reception and 491,118 children 10-11 years were measured
- Australia. Healthy Together Victoria, a community-based approach to obesity prevention

For each of the 42 indicators, the New Zealand Government received a score of A, B, C, or D. 'A' means a level of implementation of at least 75%. 'D' means a very low level of implementation (<25%) compared with international best practice (See Table 3 below, the Food-EPI scorecard).

The scorecard shows that the New Zealand government is performing very well in preventing unhealthy foods carrying health claims, providing ingredient lists and nutrition information panels on packaged foods, transparency in policy development processes, providing access to information for the public, and monitoring prevalence of chronic diseases and their risk factors. Further progress is forthcoming, since the government recently announced voluntary implementation of the Health Star Rating front-of-pack labelling system, and extra funding for a systems-based approach to obesity prevention (12,13).

However, major 'implementation gaps' were identified. In New Zealand there is no comprehensive chronic non-communicable disease action plan. Restrictions on unhealthy food marketing to children, fiscal policies, food retail policies, and protection of food environments within trade and investment agreements, are virtually non-existent. The implementation gaps outweigh the good performance of the government in a substantial number of areas. This is worrying, because since dietary risk factors and excess food energy intake account for 11.4 per cent of loss of health in New Zealand (14, 15). Obesity is forecast to overtake tobacco as the leading cause of ill-health by 2016 (14).

Table 3

Food-EPI Scorecard.

How New Zealand rates

DOMAIN	POLICY OR ACTION	
Composition	Food composition targets	B
Labelling	Ingredient lists / nutrient declarations	A
Labelling	Regulatory systems for health and nutrition claims	A
Labelling	Front-of-pack labelling	C
Labelling	Menu board labelling	D
Promotion	Restricting unhealthy food promotion to children (all media)	D
Promotion	Restricting unhealthy food promotion to children (settings)	D
Prices	Reducing taxes on healthy foods	D
Prices	Increasing taxes on unhealthy foods	D
Prices	Food subsidies favour healthy foods	D
Prices	Food-related income-support for healthy foods	C
Provision	Policies in schools promote healthy food choices	C
Provision	Policies in public sector settings promote healthy food choices	C
Provision	Support and training systems (public sector)	B
Provision	Support and training systems (private companies)	B
Retail	Robust local government and zoning laws	D
Retail	In-store availability of healthy vs unhealthy foods	D
Trade	Health impacts of trade agreements assessed	D
Trade	Protection of regulatory capacity – nutrition	D
Leadership	Strong visible political support	C
Leadership	Population intake targets	C
Leadership	Food-based dietary guidelines	B
Leadership	Comprehensive implementation plan	D
Leadership	Priorities for reducing health inequalities	B
Governance	Restricting commercial influences on policy development	B
Governance	Use of evidence in food policies	B
Governance	Transparency in development of food policies	A
Governance	Access to government information	A
Monitoring	Monitoring food environments	B
Monitoring	Monitoring nutrition status and intakes	B
Monitoring	Monitoring overweight and obesity	A
Monitoring	Monitoring NCD risk factors and prevalence	A
Monitoring	Evaluation of major programmes	C
Monitoring	Monitoring progress towards reducing health inequalities	B
Funding	Funding for population nutrition promotion	C
Funding	Funding for obesity and NCD prevention research	B
Platforms	Co-ordination mechanisms (national and local government)	C
Platforms	Platforms government and food sector	C
Platforms	Platforms government and civil society	C
Platforms	Systems-based approach to obesity prevention	C
Health-in-all-Policies	Assessing public health impacts of food policies	C
Health-in-all-Policies	Assessing public health impacts of non-food policies	C

1 Shortened, summary version of the good practice indicators included in the Food-EPI
'A' is implementation of at least 75%, 'D' is less than 25%, compared with international best practice

The expert panel recommended 34 specifications to improve the healthiness of food environments in New Zealand, and gave 7 of these a priority for immediate action. Details are on-line (16).

Similar rating of policies and actions of other governments in countries of varying size and income is needed, to spur governments into action by comparing them with each other and in relation to best practice. Governments have been compared with one other for decades in many ways, such as levels of corruption (17), economic freedom (18), peacefulness (19), unemployment (20), and in several public health areas, such as breastfeeding (21), alcohol consumption (22) and tobacco use (23).

Obesity and diet-related chronic diseases are rising globally, and dietary risk factors increasingly contribute to this disease burden (24). But no substantive attempts have up to now been made to make national and other governments more accountable for actions that affect the quality of population diets. Strong political will and leadership will be needed for governments to confront transnational and other giant Big Food corporations (8,25). Many actions are needed, including implementation of strong policies on food reformulation, the restriction of food marketing to children and of front-of-pack labelling, and ensuring that international trade agreements do not stop policymakers implementing such policies. These points have been emphasised by Margaret Chan, director-general of the World Health Organization (26).

Holding industry to account

Food corporations and companies shape the food environments of people, communities and populations (27). They do this by the products they sell, their marketing activities, and their work to shape government policy (often referred to as 'corporate political activity'). Industry has been criticised for its part in making food environments unhealthier, and transnational manufacturing and catering corporations have been identified as major drivers of diet-related chronic non-communicable diseases, including through their power and influence over political processes (8, 26). Food corporations can also make food environments healthier, or at least less unhealthy (28).

Currently there is very little independent monitoring of the nature and impact of corporate actions on food environments. The purpose of the private sector module of INFORMAS is to fill this gap. This responds to the recent call of the former UN Special Rapporteur on the Right to Health for increased transparency of food industry activities, and a framework to hold the food industry accountable for its actions (29).

The stepped approach to data collection in the private sector module of INFORMAS, starts with an assessment of the companies to be monitored in a particular country,

and with the companies that pose the greatest threat, or that have the greatest capacity to improve public health nutrition in that country. It may include a selection of the major food manufacturers, major drink manufacturers, key food retailers, and major fast food chains, as well as key industry associations, such as food or drink manufacturing or retail associations.

Minimal step

The 'minimal' step involves collation of publicly-available food and nutrition-related policies of the selected companies. These are often available on corporate websites. This step was recently carried out for selected companies in Australia, New Zealand and Fiji, with respect to reduction of food marketing to children and product (re)formulation (30). The analysis found that in Australia and New Zealand there are a higher proportion of companies with publicly available marketing and formulation policies than in Fiji. However, even in Australia, a large proportion of the most prominent food companies do not have publicly available policies.

Where they exist, policies on food marketing to children generally focus on those aged less than 12 years; do not apply to all types of media, marketing channels and techniques; and are not transparent about the products to which the policies apply. Product formulation policies, where they exist, focus mostly on salt reduction and changes to the make-up of overall product portfolios, and generally do not address reduction of saturated fat, added sugar or energy density. This analysis illustrates the shortcomings of current food industry policies in these areas, and highlights country-level differences in food company policy action.

Expanded step

The 'expanded' step assesses the nutritional composition of each company's products, their promotions to children, their labelling practices, and the accessibility, availability and affordability of their products. This step has not yet been carried out as part of INFORMAS, but the intention is to use the data collected as part of the 'impact' modules of INFORMAS to conduct this analysis. There is strong overlap between aspects of this monitoring step and the country 'spotlight indexes' currently being developed by the Access to Nutrition Index (ATNI) for assessment of food manufacturers (31). The potential for collaboration between ATNI and INFORMAS is currently being explored.

Optimal step

The 'optimal' step of the private sector module of INFORMAS includes an assessment of corporate political activities, including political lobbying and donations, corporate philanthropy, support for research, and the ways in which the

companies frame the chronic disease debate. Methods for monitoring corporate political activity are currently being developed, based on approaches used to monitor the practices of tobacco and alcohol companies. It is anticipated that novel methods of data collection will be particularly valuable here, including crowd-sourcing, use of social media, and whistle-blower evidence.

Overall, the data collected within the private sector module of INFORMAS will be used to highlight industry good and poor practices. Company report cards will serve as a tool for communication with corporations and governments, as well as other potential agents of change, such as investment banks and the media. League tables of company performance, measured as benchmarks against global best practice, should help to drive improved action and greater transparency.

Key challenges

Some of the major challenges related to global implementation of INFORMAS monitoring include:

- Capacity constraints on data collection, especially within larger countries. INFORMAS has developed a stepped approach to data collection and analysis, as well as different sampling strategies, to allow countries flexibility in data collection depth and breadth. Methods for taking into account variation within countries (for example, different states or provinces) need to be developed, particularly where aspects of food policy fall under different jurisdictions (municipal/state/federal) within a country.

- Long-term funding is needed to achieve the greatest benefit from INFORMAS. Costs should decline over time, once the protocols and databases have been fully developed and trialled in a set of countries of varying size and levels of average income. In addition, crowd-sourcing tools and methods can increasingly be used in future for data collection and public engagement. INFORMAS aims to be a sustainable, low-cost monitoring initiative.

- Capacity building is likely to be required to undertake the full range of INFORMAS activities, which include data collection, analysis, grant writing, and feedback to policy makers, in many low and middle income countries. It is anticipated that INFORMAS work currently being undertaken in some upper-middle income countries (Mexico, Thailand) or lower middle income countries (Fiji) might help to identify some of the issues to be addressed before implementing INFORMAS more broadly.

- INFORMAS modules are currently at different stages of development. Some are up and running already globally (food composition). Some need further work and development (trade, prices).

- There are likely to be tensions between the need to tailor INFORMAS data analysis protocols to national contexts, and the desire to facilitate international comparisons.

Examples are classification of nutrition and health claims according to national legislation, or using the INFORMAS taxonomy. Where priority is given to national issues, additional analysis may be required for global comparisons.

- Countries use different food-based and nutrient-based systems to classify foods as healthy, less healthy or unhealthy. There is currently no common agreement on a global nutrient profiling system. There is also no agreement on the definition of a healthy diet, and the development of a global foundation diet (or regional versions) still needs work. In addition, the use of household budget survey data, which are available for many countries worldwide for nutrition monitoring purposes, needs to be further explored. This is particularly relevant for the food prices and diet quality modules of INFORMAS.

- For some aspects of INFORMAS, no good monitoring methods and tools currently exist, such as for assessing the potential impact of draft trade agreements on population health and food environments, or for the nature and extent of food marketing to children through new media, such as social and mobile media. For these, there are difficulties in capturing exposure estimates and trends since there are limited commercial data available and content is individually tailored to users. More research is needed here.

- Diets and food systems need to be healthy, and also sustainable. The UN post-2015 development agenda is likely to include global goals to achieve 'sustainable diets', not least because climate change threatens to inflict major damage to global food systems. INFORMAS needs to work to develop sustainability indicators for several of its modules.

From evidence to action

The primary goal of INFORMAS is to report on the healthiness of food environments. Bu this is not an end in itself. Collection of such information has three purposes. It is to

- Measure the progress made towards targets and benchmarks of best practice related to food environment policies.

- Evaluate the impact of policies and actions on food environments, and identify the policy drivers and processes that affect food environments at governmental and corporate level.

- Use this information to advocate for change and to support the implementation of strong policies to improve the healthiness of food environments and reduce obesity and diet-related chronic diseases.

The use of research information by advocates is frequently highlighted as an important component of advocacy (32, 33). Public health advocacy needs to be based on the best evidence available (34). Given the complex and sometimes marginal role that evidence plays in the implementation of policies, it is important to understand how evidence such as that collected by INFORMAS can be effectively used as part of advocacy to achieve the greatest effect for public health.

It is also important that advocacy is evaluated to understand its impact on the policy process. An emerging field of advocacy evaluation attempts to show the impact of advocacy on policy change (35). But no comprehensive reviews that explore the use of and effectiveness of surveillance information on environments for advocacy purposes in the area of food and nutrition have yet been identified (32)

We have conducted our own non-systematic review. This has examined a range of current advocacy materials in the field of public health nutrition, and the communication methods used by the source organisations to increase the potential impact of such data (36). A number of common approaches to the use of surveillance data in advocacy have been identified. These are:

- *Holding companies to account*
  This includes praising good practice, or naming and shaming poor practice by commercial operators, trade associations or other actors.

- *Surveillance of market-based activities*
  This includes surveys to identify problems, challenge assumptions, re-frame policy debates or counter policy proposals.

- *Evaluation of government policies*
  This includes reviews of good or best practice guidelines or the promotion of codes of behaviour or sets of standards.

- *Public engagement*
  This includes using survey results for raising popular awareness about an issue, and might include the use of polls and petitions to support advocacy positions.

INFORMAS advocacy will focus on communicating the data generated, in line with these four approaches.

This will require the targeting of multiple actors, including policy makers, health professionals, non-government organisations and the public, through a range of different strategies. INFORMAS will use a range of opportunities to meet specific communication goals, such as those identified in Box 2 below (36).

Box 2
Communication goals

The goals for INFORMAS communication with the general purpose of reducing obesity, chronic non-communicable diseases, and related inequalities, are to:

- Raise awareness among actors
- Influence policy development for improving food environments
- Provide a repository for information to encourage knowledge exchange and debate.
- Encourage further research and policy evaluation
- Encourage action by advocacy organisations, policy-makers, private sector, others
- Strengthen the reputation of INFORMAS so that it is trusted and recognised

Adapted from (36)

To ensure that maximum value is gained from INFORMAS material, and that these goals are met, the collected data will be available through an open access information repository in a form that allows actors to use it for their own purposes. These can include identification of weaknesses and gaps in policies, identification of the need for codes of practice in a legal or a statutory framework, development of public awareness campaigns, and building of expert consensus to support policy development.

INFORMAS researchers will use opportunities to communicate results and thus to frame and translate the key issues identified from the performance indicators. These will be adapted for various audiences. This may include using the INFORMAS outputs in expert consultations; ministerial or legislative briefings; scientific and peer-reviewed publications; conference and seminar presentations; and research partnerships with government.

The use of media is a powerful tool for communication. This has been described as a 'blend of science, politics and activism' which is 'in a large part about making sure the story gets told from a public health point of view' (37). Media platforms to be used as part of INFORMAS advocacy include print, broadcast and digital and social media. Information is available at www.informas.org. This site, and other linked sites, will be a source for the methodologies used for gathering information, and the data that accumulate as a result. It will be meta-tagged with key search terms to ensure the site is readily accessed by search engines.

In addition to INFORMAS, keeping better track of successes and failures in the implementation and sustainability of nutrition policies through high quality case studies will help civil society to improve advocacy for promotion and protection of healthy diets. But evidence of policy impact on health is only one factor that drives government food policy decisions, as shown by the fate of the Danish fat tax (38)

and the US school lunch nutrition standards (39). In such cases economics, politics, public opinion and knowledge, and importantly, how the issue is framed, are also factors that influence policy discourse and action (6). Advocacy strategies related to public health, including those of INFORMAS, must be sensitive to such factors. Especially important is the framing of issues, to ensure that discourse on nutrition policies is consistent and in the interests of public health.

Summary

With the development of time series and cross-country comparisons, INFORMAS will become a critical data resource for analysing changes in the determinants of obesity and diet-related chronic diseases. The impacts of national policies are very difficult to measure, and are rarely amenable to randomised controlled trials, A rich data series measuring levels of policy implementation, impacts on food environments and health outcomes, is one of the few robust ways of evaluating national policies.

INFORMAS intends to be directly relevant to policy makers. It will provide communication tools to promote accountability of the public and private sectors. The collection of benchmarks of best practice, and case study evidence for countries that have implemented strong healthy food policies, including critical success factors, will help to build pressure for more policy action. Challenges include funding for global implementation, capacity building in low and middle-income countries, tensions between national priorities and international comparability, and incorporating sustainability of food systems and diets.

Monitoring and comparing food environments and policies and comparing them with best exemplars is only part of the solution to reduce obesity and diet-related chronic diseases. More diverse tools, processes and strategies are needed. INFORMAS supports and is contributing to the development and implementation of a global treaty to protect and promote healthy diets (40). It also supports community mobilisation through systems based approaches such as the Healthy Together Victoria in Australia, engagement and empowerment of citizens and consumers, strengthening of civil society to hold governments and the food industry to account, and collection of case studies of real life effective policies and actions, with details of what made them successful.

As the political power of transnational and other huge corporations increases in line with their increasing economic power, there is heightened risk that their profits will be privileged above other considerations, resulting in food governance that does not adequately balance public and private interests. INFORMAS is part of a global movement to redress this imbalance.

References

1 Swinburn B, Sacks G, Vandevijvere S, Kumanyika S, Lobstein T, *et al.* INFORMAS (International Network for Food and Obesity/non-communicable diseases Research, Monitoring and Action Support): overview and key principles. *Obesity Reviews* 2013, Suppl 1: 1-12.

2 Swinburn BA, Sacks G, Hall KD, McPherson K, Finegood DT, et al. The global obesity pandemic: shaped by global drivers and local environments. *The Lancet* 2011, 378: 804-814.

3 World Health Organization. *Global Action Plan for the Prevention and Control of Noncommunicable Diseases 2013-2020*. Geneva, Switzerland: World Health Organization, 2013.

4 World Cancer Research Fund / American Institute for Cancer Research. *Food, Nutrition, Physical Activity, and the Prevention of Cancer: A Global Perspective*. Washington, DC: AICR, 2007.

5 Haby MM, Vos T, Carter R, Moodie M, Markwick A, *et al.* A new approach to assessing the health benefit from obesity interventions in children and adolescents: The assessing cost-effectiveness in obesity project. *International Journal of Obesity* 2006, **30:** 1463-1475.

6 Cecchini M, Sassi F, Lauer JA, Lee YY, Guajardo-Barron V, *et al.*. Tackling of unhealthy diets, physical inactivity, and obesity: health effects and cost-effectiveness. *The Lancet* 2010, **376**: 1775-1784.

7 Fraser B. Latin American countries crack down on junk food. *The Lancet* 2013, **382**: 385-386.

8 Moodie R, Stuckler D, Monteiro C, Sheron N, Neal B, *et al.* Profits and pandemics: prevention of harmful effects of tobacco, alcohol, and ultra-processed food and drink industries. *The Lancet* 2013, **381**, 670-679.

9 INFORMAS. Special Issue: INFORMAS (International Network for Food and Obesity/non-communicable diseases, Research, Monitoring and Action Support): rationale, framework and approach. *Obesity Reviews* 2013, 14 (Suppl), 1-164.

10 Vandevijvere S, Swinburn B. Towards global benchmarking of food environments and policies to reduce obesity and diet-related non-communicable diseases: design and methods for nation-wide surveys. *BMJ Open* 2014, 4: e005339.

11 Swinburn B, Vandevijvere S, Kraak V, Sacks G, Snowdon W, *et al.* Monitoring and benchmarking government policies and actions to improve the healthiness of food environments: a proposed Government Healthy Food Environment Policy Index. *Obesity Reviews* 2013, **14** Suppl 1: 24-37.

12 Ministry of Health Healthy Families NZ.http://www.health.govt.nz/our-work/preventative-health-wellness/healthy-families-nz. Wellington: Ministry of Health, 2014.

13 Ministry for Primary Industries. Health Star Rating – new food labelling system.http://www.foodsafety.govt.nz/industry/general/labelling-composition/health-star-rating/ Wellington: Ministry for Primary Industries, 2014.

14 Ministry of Health. *New Zealand Burden of Diseases, Injuries and Risk Factors Study, 2006–2016*. Wellington: Ministry of Health, 2013.

15 Institute for Health Metrics and Evaluation. *Global Burden of Disease Country Profile New Zealand*. 2012. https://www.healthdata.org/sites/default/files/files /country_profiles/GBD/ihme_gbd_country_report_new_zealand.pdf
16 Swinburn B, Dominick CH, Vandevijvere S. *Benchmarking Food Environments: Experts' Assessments of Policy Gaps and Priorities for the New Zealand Government*. Auckland: University of Auckland, 2014.
17 Transparency International Corruption Perceptions Index 2013. http://www. transparency.org/cpi2013/results
18 The Heritage Foundation. Index of economic freedom, 2014. .http://www .heritage.org/index/
19 Institute for Economics and Peace Global Peace Index. http://economicsandpeace.org/research/iep-indices-data/global-peace-index
20 Trading Economies Unemployment rate.http://www.tradingeconomics.com/country-list/unemployment-rate
21 Save The Children. *Breastfeeding Policy Scorecard for Developed Countries*, 2012. http://www.savethechildren.org/atf/cf/%7B9def2ebe-10ae-432c-9bd0-df91d2eba74a%7D/BREASTFEEDING_POLICY_SCORECARD_FOR_DEVELOPED_COUNTRIES.PDF
22 World Health Organization. *Global Status Report on Alcohol and Health*. Geneva: WHO, 2011
23 Australian Council on Smoking and Health. *National Tobacco Control Scorecard*, 2010. http://www.acosh.org/law-and-policy/australian-best-practice/
24 Lim SS, Vos T, Flaxman AD, Danaei G, Shibuya K, 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. *The Lancet* 2013, *380*: 2224-2260.
25 The *PLoS Medicine* editors. PLoS Medicine series on Big Food. The food industry is ripe for scrutiny. *PLoS Medicine* 2012, 9.
26 Chan M. WHO Director-General addresses health promotion conference. Opening address at the 8th Global Conference on Health Promotion, Helsinki. Geneva: WHO, 2013
27 Sacks G, Swinburn B, Kraak V, Downs S, Walker C, et al. A proposed approach to monitor private-sector policies and practices related to food environments, obesity and non-communicable disease prevention. *Obesity Reviews* 2013, **14** Suppl 1: 38-48.
28 United Nations. *Political Declaration of the High-level Meeting of the General Assembly on the Prevention and Control of Non-communicable Diseases*. New York: UN General Assembly, 2011.
29 Grover A. Report of the Special Rapporteur on the right of everyone to the enjoyment of the highest attainable standard of physical and mental health. Unhealthy foods, non-communicable diseases and the right to health. Human Rights Council, Twenty-sixth session. UN Human Rights Council, 2014.
30 Sacks G, Mialon M, Vandevijvere S, Trevena H, Crino M, et al. Comparison of food industry policies and commitments on marketing to children and product (re)formulation in Australia, New Zealand and Fiji. *Critical Public Health* 2014, DOI: 10.1080/09581596.2014.946888.
31 Access to Nutrition Index (2013) https://www. accesstonutrition.org

32 Lobstein T, Brinsden H, Landon J, Kraak V, Musicus A, *et al.* INFORMAS and advocacy for public health nutrition and obesity prevention. *Obesity Reviews* 2013, **14** Suppl 1: 150-156.

33 Raynor J, York P, Sims S. What makes an effective advocacy organization? A framework for determining advocacy capacity. The California endowment. 2009. http://www.calendow.org/uploadedFiles/Publications/Policy/General/EffectiveAdvocacy_FINAL.pdf

34 Start D, Hovland I. *Tools for Policy Impact: A Handbook for Researchers*. London: ODI, 2004.

35 Devlin-Foltz D, Fagen MC, Reed E, Medina R, Neiger BL Advocacy evaluation: challenges and emerging trends. *Health Promotion and Practice* 2012, **13**: 581-586.

36 Brinsden H, Lobstein T, Landon J, Kraak V, Sacks G, *et al.* Monitoring policy and actions on food environments: rationale and outline of the INFORMAS policy engagement and communication strategies. *Obesity Reviews* 2013, **14** Suppl 1: 13-23.

37 Wallack L. *Media Advocacy and Public Health: Power for Prevention*: SAGE, 1993. ISBN 9780803942899.

38 Vallgarda S, Holm L, Jensen JD. The Danish tax on saturated fat: why it did not survive. *European Journal of Clinical Nutrition* 2015, **69**, 223–226

39 Woo Baidal JA, Taveras EM. Protecting progress against childhood obesity--the National School Lunch Program. *New England Journal of Medicine* 2014, 371: 1862-1865.

40 World Obesity Federation, Consumers International *Recommendations towards a Global Convention to Protect and Promote Healthy Diets. London:* WOF-CI, 2014. http://www.worldobesity.org/what-we-do/policy-prevention/advocacy/global-convention/

Status

Cite as: Vandevijvere S, Sacks G, Brinsden H, Lobstein T, Swinburn B. INFORMAS. Measuring the drivers of obesity, disease, health, well-being. *[Sick societies] World Nutrition* March 2015, **6,** 3, 184-201. All *WN* contributions are obtainable at www.wphna.org.

How to respond

Please address letters for publication to wn.letters@gmail.com. Letters should usually respond to or comment on contributions to *World Nutrition*. More general letters will also be considered. Usual length for main text of letters is between 350 and 1,000 words. Any references should usually be limited to up to 12. Letters are edited for length and style, may also be developed, and once edited are sent to the author for approval.