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COMMENTARY

Policy Makers' Views of Obesity-Related Challenges Around the World

An interview between Pierre Cremieux (of Analysis Group, Inc., and Guest Editor of this Special Issue) and policy makers from Brazil (Patricia Constante Jaime), Canada (Kimberly Elmslie), China (Bin Wang), France (François Crémieux), and the USA (Mark McClellan)

Pierre Cremieux[1]

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1 Pierre Cremieux

How prominent a concern is the growth in obesity in terms of public health and healthcare cost increases in your country?

Bin Wang (China)

Obesity has raised public health and healthcare concerns through its contribution to many chronic diseases like diabetes, hypertension, hyperlipidemia, cardiovascular diseases, and cancer, among others. The burden of these diseases has become tremendous for Chinese public health and medical care. According to the Report on Chronic Diseases in China [1], from 2004 to 2010 there was a rising trend in the proportion of people in China, aged 18–69, who were overweight. The report also estimated that approximately 31 % of people in China between the ages of 18–69 were overweight in 2010 [2].

Mark McClellan (USA)

Obesity has been a long-standing public health concern in the US. Since the 1980s, there has been an upward trend in obesity and obesity-related health issues. Recent studies have estimated that more than one-third of US adults are obese [3, 4], and the annual medical cost of obesity has been estimated to be more than US$150 billion per year [5]. Moreover, one-third of children in America are overweight or obese, and these rates in African-American and Hispanic communities approach 40 % [3]. These rates of childhood obesity represent a 3-fold increase over the last 30 years and create the potential for substantial rates of diabetes and other chronic obesity-related health problems like heart disease, high blood pressure, cancer, and asthma in the future. Heart disease, stroke, type 2 diabetes, and certain types of cancer have become some of the leading causes of preventable death in the US (although smoking-related conditions remain the number one cause of preventable death in the US) [6].

From a public policy perspective, obesity issues have been an important agenda item in the US since the 1990s. Initial efforts focused on such things as the encouragement of food labeling and on the reduction of the amount of fat consumed. These efforts alone were not particularly successful, as the upward trends in obesity continued. More recent efforts have shifted toward a focus on overall caloric intake and the encouragement of physical activity.

Kimberly Elmslie (Canada)

The Public Health Agency of Canada is very concerned about the high rates of obesity and overweight in Canada, especially among young Canadians. Today, almost one in three Canadian children and youth are overweight or obese, with rates even higher among Aboriginal children [7], and only 4.4 % of children meet Canada's physical activity guidelines [8–10]. Unhealthy weights are also a key driver

Policy makers from across the world discuss the measures undertaken by their governments to combat rising obesity levels. They include Patricia Constante Jaime (Coordinator of Food and Nutrition, Ministry of Health of Brazil), Kimberly Elmslie (Acting Assistant Deputy Minister, Health Promotion and Chronic Disease Prevention Branch of the Public Health Agency of Canada), Bin Wang (Deputy Director of the Disease Control Division, National Health and Family Planning Commission of China [MOH]), François Crémieux (Chief Executive Officer, University Hospitals of the North Paris Region, France), and Mark McClellan (Director, Initiatives on Value and Innovation in Health Care, Brookings Institution, and former FDA Commissioner and CMS Administrator, USA).

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of chronic disease. Obese children are increasingly being diagnosed with a range of health conditions seen previously almost exclusively among adults, such as type 2 diabetes, high cholesterol, high blood pressure, sleep apnea, and joint problems.

We all know that living an active and healthy lifestyle is important for both young and old people. It plays an important role in achieving good health, well-being, and a better quality of life. We also know that obesity is a complex issue and addressing its causes is a long-term effort that requires innovative actions from many sectors of society to support good health.

Patricia Constante Jaime (Brazil)

In Brazil, non-communicable chronic diseases (NCDs) are currently a major public health problem and contribute to 72 % of all deaths [11]. NCDs have been responsible for numerous premature deaths and for lowered quality of life due to limitation of work and leisure activities, and they also have large economic impacts on communities, families, and society at large. Currently, 51 % of the Brazilian adult population is overweight and 17 % is obese [12]. Surveys in various state capitals show average annual increases of 1.05 % in overweight prevalence and 0.76 % in obesity prevalence in the adult population [12]. In consequence, the burden of obesity to the Brazilian national health system is also very high [13, 14]: in 2011, 487.98 million Brazilian reals (roughly US$219.59 million) were spent on medium- and high-complexity health treatments for obesity and obesity-related diseases [15].

Thus, the Brazilian government is concerned with coping with excess weight intra- and inter-sectorally, through health and food and nutrition oversight policies. For example, along with other ministries, including those of Social Development, Education, and Agriculture, the Interministerial Chamber of Food and Nutrition Security has developed and started to implement an Intersectoral Strategy for Tackling Overweight and Obesity, which sets directives for promoting the production of and access to healthy foods, food and nutrition education, and health sector initiatives. Within the health sector, the treatment directives for obesity, from primary healthcare to specialized care (including bariatric surgery), have also been revised and reinforced in order to improve treatment and prevention of overweight and obesity, by controlling and monitoring weight gain in the population and by treating the health problems associated with each phase of weight gain. It is very important to highlight that, in line with WHO recommendations, the new Food Guide for the Brazilian Population has recently been revised and is currently under public consultation for final input from the population.

Francois Cremieux (France)

In terms of health economics, the rising cost of specific pathologies directly linked with obesity, namely cardiovascular diseases (€14.7 billion in 2011) and diabetes (€7.5 billion in 2011) [16] are of major concern in France. In its annual report to parliament, the National Social Security Office states that the total cost of cardiovascular pathologies and cardiovascular risk factors account for 20 % of the health costs (€30 billion) and they are increasing [16].

In terms of public health policies, obesity became a political issue in France in 2001, with the launching of the first national 'health and nutrition' program [17, 18]. The short introduction to the document, signed by the Minister of Health, made reference to (a) France as the country of happy gastronomy and good restaurants, (b) the 12 % obesity rate among children under 12, and (c) the political responsibility to address the matter and to propose a path between the "sweet principle of pleasure" and the "precautionary principle" [17].

This first national program recalled the epidemiological context and the major impact of nutrition on the main diseases such as cardiovascular pathologies, tumors, osteoporosis or diabetes. It listed nine nutritional priorities. The quantitative objective for the 2001–2005 plan was to reduce the obesity rate among adults (BMI >25 kg/m^2) by 20 % and to stop the increase among children. The emphasis was not only on obesity, although it was noted that it concerned 7–12 % of the adult population and 10–12.5 % of children aged 5–12, but also on the promotion of 'positive' food for health, such as fruit, calcium or carbohydrate, especially among targeted populations: children and teenagers, women, pregnant women, the elderly. Lastly, this first national program also emphasized the necessity to promote daily physical activity to fight a sedentary lifestyle. A third national plan was issued recently, covering policies to be implemented in 2011–2015 [19].

2 Pierre Cremieux

Does your government have any specific publicly funded programs aimed at the prevention and/or treatment of obesity?

Bin Wang (China)

At present we have not assumed projects specifically focused on obesity. However, we have a long-term emphasis on projects that focus on preventing and controlling chronic diseases—among which we consider obesity to be a risk factor. Certainly, with the change of the disease spectrum, in the future we may increase our attention to

obesity. For example, health education and intervention programs that aim to encourage diets, promote national fitness, and increase physical activity for Chinese primary and middle-school students can also be designed for the general population and for other special subgroups.

Mark McClellan (USA)

Government entities at various levels in the US have adopted policies and programs that are aimed at the prevention and/or treatment of obesity.

For example, obesity is an important priority for the Centers for Disease Control and Prevention (CDC). In fact, the CDC's Division of Nutrition, Physical Activity, and Obesity (DNPAO) is committed to promoting and implementing policy and environmental strategies to make healthy eating and active living more accessible and affordable for everyone. In this regard, the CDC provides guidance and recommendations for individuals, families, and communities to address the challenges of obesity. At the community level, the CDC offers strategies for a variety of institutions and organizations, including schools, hospitals, neighborhoods, and workplaces. In addition, the CDC funds programs in more than two dozen states and a wide range of 50 local communities (including urban, small, rural, and tribal communities) that seek to address and prevent obesity.

Another example of the federal government's efforts to address the obesity epidemic is the First Lady's 'Let's Move' campaign [20], which seeks to address the problem of obesity within children. An important goal of this campaign is to encourage the development of healthier habits among young people with regard to food choices and physical activity, and the campaign engages parents, schools and communities to promote access to healthy affordable food and to encourage higher levels of physical activity among children.

Regional Federal Reserve Banks have promoted and supported efforts to create healthier communities through local economic development programs that, for example, provide green spaces to encourage outdoor activities and ensure access to affordable healthy foods in urban areas. Such efforts are also supported by the Department of Housing and Urban Development. An important example of such a development effort is Philadelphia, where substantial efforts and investments have been made since 2001 to increase access to healthy foods in lower-income neighborhoods [21]. The successes achieved in Philadelphia have encouraged other cities to attempt to replicate these efforts and investments for their citizens [22].

Given the recognition of the importance of addressing issues relating to obesity and obesity-related health problems, it is likely that government efforts to address these issues will remain an important policy priority at the national, state, and local levels for the foreseeable future.

Kimberly Elmslie (Canada)

In Canada, as a federation, health is a shared responsibility among federal, provincial and territorial governments. Provinces and territories (P/Ts) have primary responsibility for delivering health services that best meet the needs of their citizens. The federal government works in close collaboration with P/Ts to provide funding towards the healthcare system, to enforce federal health regulations, to develop health policy, and to prevent disease and promote healthy living. It is a complex world that requires cooperation and collaboration in order to advance shared interests.

In 2010, Federal, Provincial, and Territorial (F/P/T) Ministers of Health and/or Health Promotion/Healthy Living (except Quebec) endorsed the *Declaration on Prevention and Promotion* (Declaration) [23], presenting their vision for working together and with others to make the promotion of health and the prevention of disease, disability, and injury a priority for action. Québec supports the general objectives of this framework, but remains solely responsible for the development, implementation, and communication of programs to promote healthy lifestyles within its borders. However, the Province intends to continue sharing information and best practices with other Canadian governments. In that same year, the Ministers endorsed *Curbing Childhood Obesity*: *A Federal, Provincial and Territorial Framework for Action to Promote Healthy Weights* (Framework) [24] as the first priority for collaborative action because achieving healthy weights in childhood will have lifelong positive health impacts. Key milestones of this work can be found in the 2013 e-Report on Healthy Weights, *Towards a Healthier Canada—2013 Progress Report on Advancing the Federal/Provincial/Territorial Framework on Healthy Weights* [25].

The federal government contributes to the fight against obesity in a number of ways. Since 2006, the Government of Canada has invested more than Can$200 million in obesity-related research. The Government also offers a children's fitness tax credit and has eliminated the tariffs on sports and athletic equipment, making it easier for children and their families to stay active. The Government has developed tip sheets, based on Canada's physical activity guidelines, to provide helpful information on how Canadians of all ages can incorporate regular physical activity into their lives. A number of initiatives are available to support healthier food choices, including *Eating Well with Canada's Food Guide* [26], *Eating Well with Canada's Food Guide—First Nations, Inuit and Métis* [27], *Eat Well and Be Active Educational Toolkit* [28], and the *Nutrition*

Facts Education Campaign [29]. Funding is also provided to organizations for a range of community-based programs, including *Children's Health and Safety Campaign* [30], *Nutrition North Canada* [31], *Aboriginal Head Start and Active and Safe* [32].

It's not just governments that need to be involved. We all have a stake in this issue—individuals, communities, schools, workplaces—all have a role to play. That's why our pan-Canadian approach calls for action by many sectors—private and public, education, recreation, municipal planning, and transport. Over the past 2 years, a key focus of the Public Health Agency of Canada has been the building of multi-sectoral partnerships to help children, youth, their families and other areas of society achieve and maintain healthy weights (*The Multi-Sectoral Partnership Approach to Promote Healthy Living and Prevent Chronic Disease* [33]). For example, the Agency is working with Air Miles, a loyalty rewards program, and the YMCA to test an incentive-based model to help Canadian families become more physically active and to make healthier decisions, throughout the day, every day. The Agency has also launched an exciting initiative that focused on finding innovative ideas that contribute to a healthier Canada and that foster collaboration across sectors. The Play Exchange [34]—established in collaboration with LIFT Philanthropy Partners (a not-for-profit organization), the Canadian Tire Corporation and the Canadian Broadcasting Corporation (CBC)—was an online national competition, open to all Canadians who chose to submit innovative ideas for inspiring Canadians to lead healthier and more active lives. Over 400 submissions were received. The top six finalists, chosen by high-profile judges from the not-for-profit and private sector, received mentoring from LIFT Philanthropy Partners to help them develop robust business plans for their projects and were profiled in a national CBC television special that was watched by more than 300,000 Canadians. The final winner—Trottibus (the walking school bus), chosen by online vote by most Canadians—will receive up to Can$1 million to implement the winning idea.

Patricia Constante Jaime (Brazil)

In order to strengthen the prevention and control of overweight and obesity in all the healthcare facilities operating in the Health Care Network of the Brazilian National Health System (SUS) [35], the Ministry of Health is financing and developing several actions to strengthen public policies, through the Support Centers for Family Health Teams (NASF), the National Program for Improving Access and Quality of Primary Care (PMAQ-AB) [36], the Program for Rehabilitation of Basic Health Units, the National Breastfeeding and Complementary Feeding Strategy [37], the School Health Program (PSE) [38], Health Academy sites, the Network Health Care to People with Chronic Diseases, the Brazil Telehealth Program [39], and a new Food Guide for the Brazilian Population [40]. These are designed to:

In primary care:

- increase the number of multidisciplinary professional teams (NASF);
- improve access and quality of healthcare through additional personnel and community services in local municipalities (PMAQ-AB);
- provide access to basic healthcare (Program for Rehabilitation of Basic Health Units);
- actively monitor weight and height in Basic Health Units;
- support and promote adequate and healthy diets for children under 2 years of age (National Breastfeeding and Complementary Feeding Strategy);
- integrate public schools and primary health units and improve integral healthcare to scholars (prevention, promotion, and treatment) (PSE);
- institute and expand Health Academy sites—public spaces that contribute to health promotion, healthcare production, and healthy lifestyles to the population.

In specialized health care:

- redefine guidelines for prevention and treatment of overweight and obesity and to revise the criteria (including payment) for bariatric surgery (the Network Health Care to People with Chronic Diseases);
- implement the use of information technologies to support case discussions related to health (Brazil Telehealth Program);
- redesign the Food Guide for the Brazilian Population to maximize health through the development of personal skills in food and nutrition. This new food guide discourages the consumption of processed foods and advises moderate sugar consumption and it can also provide a starting point for a dialogue between the population and health professionals.

Francois Cremieux (France)

There is no single specific publicly funded program in France designed to fight obesity, but rather a sum of different actions combining health education and specific prevention programs that address obesity-related pathologies.

The prevention programs are partly national and general, with, for example, a national 'eating–moving' website [41]. The general public is regularly reminded of the issue of obesity through commercials on television or other media. Media outlets may choose between the promotion of short public health messages and a financial contribution

to the National Institute for Health Prevention and Education. They all choose the first option and most French citizens know the sentences "for your health, eat five fruits or vegetables per day", "for your health, regularly practice a physical activity", "for your health, avoid eating too fatty, too sugary or too salty food".

Regarding the treatment of obesity, all care is almost free within the French national social security system, from general practitioner consultation to bariatric surgery, if needed.

3 Pierre Cremieux

Are there any parallels in the approach you are taking to the obesity epidemic with what your government did to curb smoking?

Bin Wang (China)

In terms of our endorsement of health education for both tobacco and obesity there are striking parallels in policy development in China; however, our overall emphases are different. Tobacco control is an important public health policy implemented by the Chinese government. Solving tobacco problems depends on the assistance and improvement of legislation and taxation. From the standpoint of tobacco control, the government is not only the public policy maker but the public policy implementer. Therefore, tobacco smoking is quite different from all the other public health problems, including the obesity epidemic.

To prevent and control obesity, we mainly focus on advocacy, publicity, and other means of health education, by applying the Knowledge, Attitude, and Practice (KAP) model to enhance health awareness—with the long-term goal of improving people's health behaviors. Undoubtedly, with the development of science and technology, we also hope to have suitable methods to help us prevent and control the epidemic of obesity in a safe and effective manner.

Mark McClellan (USA)

Many of the important tools used to discourage smoking do not translate well into the context of addressing the obesity epidemic, for the simple reason that there is no 'safe' dose of cigarette smoke, while eating (in moderation) is a part of life. In other words, a key driver of obesity is not the fact that people eat, it is the fact that they eat more than they should to maintain an appropriate weight level. As a result, the use of taxation to discourage smoking does not translate well in the context of food, where excess consumption is the primary problem, not consumption itself. Given these circumstances, some attempts have been made to tax 'unhealthy' food choices and/or to seek to regulate portion sizes for some products (e.g., sugary drinks). To date, however, these efforts have been relatively modest and do not appear to have had great success. Instead, policies have mostly focused on educational approaches to encouraging healthier eating and exercise habits, and approaches focused on children and teens.

One effort worth mentioning in this area is the effort to alter the food choices that are made available to students in school lunches and/or vending machines in schools. However, given that these initiatives are often combined with other efforts to encourage greater physical activity and other habit improvements, it is difficult to draw clear conclusions about the contribution of changes in the available food choices on the observed results.

With regard to better education of consumers, the similarities between efforts to reduce smoking and to reduce obesity are greater. A key component of the fight against smoking was a campaign to promote awareness among consumers and to alert potential consumers (most notably children) of the profound dangers of smoking. Consumer education is playing a large role in the fight against obesity, as labeling standards and requirements are being used to better inform consumers about the calories and other key characteristics of food products to facilitate better decision-making by consumers. For example, the FDA is in the process of implementing food labeling standards [42] to provide consumers with clearer and more understandable information based on reasonable portion sizes and the like.

Kimberly Elmslie (Canada)

In Canada, tobacco control gains were made through a concerted effort that included taxation and regulations related to smuggling and sales to minors, policies for smoke-free spaces, public education, and programming to help smokers quit.

In tackling obesity, we believe that working with multi-sectoral partners to not only raise awareness but to drive measurable behavioral change, holds great promise. The provision of incentives as a means of achieving this goal is an example of how Canada believes it can curb obesity.

Patricia Constante Jaime (Brazil)

The main parallels between anti-smoking and obesity policies that the Brazilian Ministry of Health is currently concerned with are the need to take action in reinforcing marketing (particularly for the most vulnerable population—children) and labeling guidelines, and in developing appropriate policies for the future.

Francois Cremieux (France)

First, France has not succeeded yet in curbing smoking, as the tobacco prevalence remains high and desperately stable

since the 1980s (~30 %) [43]. Regarding smoking, there have been two main approaches over the last decades: action on the price of tobacco—regularly increasing taxes and therefore the price for the consumer—and action against smoking in public places, such as restaurants and cafes.

Second, the national programs to fight the obesity epidemic and to promote positive nutrition have mostly focused on education, information, and prevention. There are no plans to use price as a tool to curb the consumption of obesity-enhancing products or to increase the consumption of healthy products. This is in part because any such pricing strategy would, at least in the short run, risk increasing food costs for the poorer segments of the population who are most dependent on cheap food with poor nutritional content. Also, today's political paradigm is to reduce tax-based incentives for public health policies.

4 Pierre Cremieux

What types of treatments and/or prevention programs do you see as most promising to bend the obesity curve?

Bin Wang (China)

I think comprehensive projects could most effectively reduce the obesity epidemic developing in China, including making related policies, providing dietary guidance, increasing physical activity, and improving the public fitness environment. It's also worth noting that diet and weight control during pregnancy and childhood is often neglected. In fact, a scientifically based and well-controlled diet is often the key to preventing and controlling obesity in later life.

Mark McClellan (USA)

With regard to prevention of obesity in the US, early intervention programs that encourage the development of healthier eating and exercise habits among young people appear promising. Also, workplace efforts that encourage better food choices and greater physical activity among employees appear to provide some potential benefits toward bending the obesity curve. More generally, there is some evidence to suggest that social media may provide some assistance in encouraging better eating and exercise habits. For example, a smart phone app that shares an individual's activity level (or lack thereof) with a community of friends may provide some incentive to particular individuals to maintain a commitment to an exercise program.

With regard to treatment, some surgical techniques, such as gastric bypass and banding, have become important tools to control weight, particularly among individuals with higher BMI levels. Over time, I expect that these options will continue to make advances and will play a more prominent role in addressing obesity in the future. At the same time, work being done on the pharmacological side to address obesity issues has shown some progress and will also be an important part of the toolkit used to manage obesity going forward.

Kimberly Elmslie (Canada)

Important efforts are underway across Canada to help make social and physical environments where children live, learn and play more supportive of physical activity and healthy eating. Effectively addressing this complex problem calls for a sustained, multi-sectoral and multi-faceted response at all levels.

There is no 'one-size-fits-all' solution. Innovation and greater impact can be achieved through engaging all segments of society—communities, academia, the charitable and not-for-profit sector, and the private sector—to address complex social issues such as childhood obesity. For example, advancements in social innovation are leading to new ideas and ways of working to address some of society's most complex social challenges. Promoting and supporting healthy living is everyone's business.

Patricia Constante Jaime (Brazil)

Since obesity cases are multifactorial, the Brazilian government currently heavily invests in intersectoral actions to control obesity. The Intersectoral Strategy for Prevention and Control of Obesity [44] aims to overcome the double burden of malnutrition and obesity, by promoting adequate and healthy food choices and emphasizing physical activity for individuals and communities (including schools and businesses/places of employment). Adequate and healthy food programs and interventions promoting healthy choices to the population include the encouragement and support of breastfeeding and complementary feeding for children up to 2 years of age, promoting healthy eating in schools for children, youth, and adolescents, and implementing other actions to transform schools into health-promoting environments. To guide these actions, continuous monitoring of the evolution of the nutritional status of the population is needed: the Food and Nutrition Surveillance Information System (SISVAN) [45] aims to inform all health promotion, food regulation, and adequate and healthy food promotion.

In this context, a key factor is the new version of the Food Guide for the Brazilian Population [40], as it provides a set of data, analyses, recommendations, and guidance on food decisions, and the preparation and consumption of foods that aim to promote the health of individuals and their families, communities, and Brazilian society as a whole.

Francois Cremieux (France)

Clear and simple information to the consumer about nutritional quality would probably be one of the main issues in terms of prevention in France, specifically to address the socio-economic bias of obesity. Great Britain has launched a food labels program, also called 'traffic light' [46, 47], that gives colored information for goods, facilitating the comparison of nutritional quality between similar food products. France is interested in building on the program put in place in Great Britain and adopting a strategy that will provide consumers with visual reminders of the relative nutritional merits of alternative food choices. One of our issues today is that since the first national nutrition program, obesity rates among children, for example, have nearly stabilized. But the deviation from the mean is increasing with very strong socio-economic status bias. In elementary schools, children from working class backgrounds are ten times more likely to be obese than the children of parents in management positions [48]. Similarly, obesity among children of parents with elementary school education levels (24.5 %) is three times higher than among children of parents with a graduate degree (7.3 %) [48].

5 Pierre Cremieux

(*For countries with public health insurance*) What is your position on the reimbursement of pharmacological treatment for obesity? Specifically, assuming that there are safe and effective pharmacological treatments for obesity available, would you treat such drugs differently than you would drugs that treat heart disease or cancer?

Bin Wang (China)

My position on the reimbursement of obesity treatment is relatively conservative and prudent, due to a number of considerations. To start, given current conditions in China, inclusion of obesity treatments into the scope of reimbursement may affect the fairness and effectiveness of public resource allocation. The national health insurance provided by the Chinese government mainly follows the principle of equality. Due to the limitation of resources, the medications that can 'save life' or 'prevent death' are put foremost when entering a reimbursement drug list. At the same time, overemphasis on drugs that may 'improve the quality of life' for the reimbursement drug list may affect critical illness insurance programs. Secondly, broad coverage of the treatments for obesity may mislead part of the target population. For example, some people may believe that it is acceptable to simply rely on drugs to control and reduce weight, thus they would be tempted to reduce or stop exercising when on anorectic medication. Such misguided use of medication could bring serious health and economic consequences and much of our previous health education work would be negated. Thirdly, pathological obesity patients are considered for treatment with safe and efficacious medications for obesity only after an accurate diagnosis and careful evaluation. In addition, most drugs on the Chinese drug reimbursement list are mainly for the treatment of existing disease, not for the prevention of illnesses. So the reimbursement of pharmacological treatment for obesity may still have a long way to go in this sense.

Mark McClellan (USA)

As a practical matter, the decision as to whether a particular treatment should be covered and how it should be covered should be driven primarily by the net impact of the drug on overall healthcare costs and outcomes, given the other treatments available. To the extent that pharmacological treatment for obesity can be part of a cost-effective strategy for reducing costs and improving outcomes associated with obesity, it is often part of the options that are available under insurance.

As previously stated, one issue that must be considered in evaluating the reimbursement of pharmacological treatment for obesity is whether the availability of such treatment may discourage alternative approaches to weight management, such as improved diet and increased exercise. In light of this concern, the use of such pharmacological interventions should be included within a broader overall program. But there is no reason to believe that the use of such drugs should be completely excluded from the tool kit used to address this significant public health challenge.

Patricia Constante Jaime (Brazil)

Access to medication is a crucial issue for the National Health System, particularly given that medications directly impact the resolutive capacity of healthcare. The National List of Essential Medications of Brazil (RENAME) [49] is constantly revised and updated, and it is an essential, evidence-based guidance tool for the selection of drugs which are later introduced in the NHS. It is imperative that the prescription and use of drugs are guided by clinical protocols and therapeutic guidelines, which establish diagnostic criteria, medication use, and appropriate monitoring of results. The adoption of clinical guidelines promotes the rational use of medications and avoids unnecessary costs to the health system and to society.

The treatment of overweight and obesity encompasses prevention, health promotion, longitudinal clinical care, and surgical treatment; currently there are no referred specific drugs for obesity and overweight treatment in the

Brazilian NHS. On the other hand, medications to control high blood pressure and diabetes—common chronic diseases associated with overweight—are available freely in the NHS. Brazilian health policies are more conservative in this aspect, in order to avoid the 'medicalization' of the healthcare system—resorting to pharmacological solutions to health problems that can be controlled with prevention and promotion. The need to launch new drugs often occurs at the expense of existing health, often creating new diseases, more adverse events and new patients. Besides, in many cases, real-world patients do not achieve the therapeutic results that were expected from clinical trials and are often subject to iatrogenic reactions arising from the use of these drugs.

Francois Cremieux (France)

Pharmacological treatment for obesity should be treated and therefore reimbursed according to similar criteria and philosophies as any other treatment. There is no reason to consider these treatments differently or to apply different cost and benefit analyses. Their reimbursement should be based on their medical added value.

6 Pierre Cremieux

Thank you all for participating in this discussion on key aspects of governmental policy to curb the obesity epidemic. We welcome helpful commentary from our readers.

Acknowledgments The editors would like to thank the following speakers for their contributions to this roundtable on the policy implications of obesity in their country.

François Crémieux Mr Cremieux is currently the chief executive officer of the University Hospitals group of the North Paris region (Paris-Nord Val de Seine) in France. Mr Cremieux specializes in the management and financing of health systems and was former adviser to the Minister of Social Affairs, Health and Women's Rights regarding the national health strategy of France (2014, cabinet of Marisol Touraine) and former director of the Hotel-Dieu Hospital (Assistance Publique-Hôpitaux de Paris) and the Mitrovica Hospital in Kosovo.

Pierre Crémieux As a managing principal at the Analysis Group, Dr Cremieux has been working on obesity-related issues for over a decade and published a number of articles on the impact of obesity on comorbidities and utilization, the impact of bariatric surgery on costs, and a variety of topics in health economics, including the value of pharmaceuticals, the evaluation of hospital performance, the trends in the quality and cost of care, and drug cost-effectiveness.

Kimberly Elmslie Kimberly Elmslie is the acting assistant deputy minister at the Health Promotion and Chronic Disease Prevention Branch of the Public Health Agency of Canada, where she is responsible for leading initiatives in chronic disease, including surveillance, risk assessment, and prevention and management activities. Academically trained in epidemiology and biostatistics, she brings a strong science base and extensive program and policy experience to her work in public health.

Patricia Constante Jaime Dr Jaime is currently an associate professor at the Department of Nutrition, School of Public Health, University of São Paulo; she has extensive experience in the field of public health, and specifically focuses on the evaluation of programs and policies on food and nutrition, food consumption population groups, nutritional interventions and promoting healthy eating. During 2011–2014, Dr Jaime was general coordinator of Food and Nutrition of the Department of Primary Care at the Ministry of Health of Brazil.

Mark McClellan Mark McClellan, MD, PhD, is a senior fellow and director of the Health Care Innovation and Value Initiative at the Brookings Institution, focusing on strategies and policy reforms to improve health care, including such areas as accountable care, better evidence from real-world practice, and more effective drug and device innovation. Dr McClellan is a former administrator of the Centers for Medicare & Medicaid Services (CMS) and former commissioner of the US Food and Drug Administration (FDA), where he was responsible for overseeing the Medicare prescription drug benefit, the FDA's Critical Path Initiative, and public–private initiatives to develop better information on the quality and cost of care.

Bin Wang Bin Wang is the deputy director of the Disease Control and Prevention Department in the National Health and Family Planning Commission of the Ministry of Health of the People's Republic of China, in Beijing, where, among other public health efforts, she oversees initiatives to control and prevent non-communicable diseases. She has a doctorate in public health from Peking University.

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