

GLOBAL OBESITY PREVENTION CENTER AT JOHNS HOPKINS

A GROWING GLOBAL EPIDEMIC

Obesity is a true global epidemic, affecting over 1.5 billion people and continuing to spread across countries of all income levels. Obesity touches every age group, including an estimated 42 million children younger than 5. The psychological, behavioral, social, economic and health effects are far-reaching—including, but not limited to lowered self-esteem, decreased quality of life, chronic diseases such as heart conditions, premature death and higher costs to health care, businesses and many other sectors of society.

NEW APPROACHES NEEDED

The obesity epidemic is too complex for isolated interventions to be effective. Policy, economic, environmental, social, behavioral and physiological factors and relationships can all contribute to the development of obesity. Tackling obesity, like any complex global challenge—whether financial, environmental, technological or health-related—requires innovative, dedicated approaches and solutions that address the whole system.

Changing a person's diet, for example, is difficult without access to readily available healthy food. A person's peers, school, job and neighborhood, as well as the media and culture, greatly influence eating habits. Moreover, stakeholders such as food manufacturers and suppliers may hesitate to change without proper incentives. In fact, well-

meaning efforts may have unintended consequences. For instance, simply promoting vigorous exercise or lowcalorie foods can actually lead to greater overall food consumption.

Combating obesity requires a new way of thinking and an integrated, comprehensive strategy addressing multiple systems. Cooperation and buy-in from key stakeholders are critical. A given stakeholder worried about the effects of policies and interventions designed by others may resist change. A catalyst for new approaches is needed.

OUR SYSTEMS APPROACH

The Global Obesity Prevention Center (GOPC) aims to be this catalyst. Our center brings to the obesity epidemic the same systems approach that transformed many other fields. Consider some major challenges overcome in the last century: connecting the world by air travel and communications, revolutionizing manufacturing and agriculture production, establishing meteorological warning systems, eradicating smallpox. These transformations did not result from single interventions. Each change required a unified, strategic, systems approach with the following steps: (1) mapping and fully understanding the system creating the challenge (2) uniting key stakeholders (3) bringing new minds to the table (4) determining an intervention's potential consequences (direct and indirect; global and local; intended and unintended; immediate and future) (5) developing innovative, systems-oriented solutions with all stakeholders and (6) implementing these solutions in an organized, strategic manner.









A GLOBAL CATALYST

Global problems require global approaches. Communities and countries are increasingly interconnected via food systems, businesses, transportation, media and the Internet. Any factor or change can have worldwide reverberations. Tackling such far-reaching challenges requires stakeholders everywhere to cooperate and learn from each other. The GOPC serves as a catalyst for convening experts, stakeholders and projects around the world.

UNITING SCIENCE, EDUCATION AND ACTION

The GOPC integrates research, innovation, education, policy and action. These elements shouldn't be separate or isolated. For instance, developing the right solutions requires knowledge of decision makers' needs and constraints and involving them throughout the process. Stakeholders need to see how an intervention may benefit them. Examples of the GOPC's integrated efforts include:

 A systems science team that translates engineering, computer and mathematical methods and tools to the obesity arena.

- New interventions addressing policy, environmental, social and behavioral factors such as B'More Healthy Communities for Kids in Baltimore.
- Education and training that integrate research and action such as courses, seminars, conferences and programs for trainees, researchers, educators, practitioners, policymakers and other stakeholders.
- Awards to fund time-sensitive pilot projects that evaluate emerging policies and programs around the world, such as introducing physical education classes for girls in Saudi Arabian schools.

MERGING THE NEW WITH THE TRADITIONAL

Our systems approach connects disciplines and experts who have not traditionally worked on obesity (from the computer science, mathematics and engineering worlds, for example) to researchers with decades of obesity-related experience and expertise. This collaborative model will help to develop state-of-the-art approaches and methods (computer simulation models, big data techniques, geospatial tools and social media technology among them) to control the global obesity epidemic.

No other advocacy group, government agency or academic center can match the GOPC's scope of expertise. The Bloomberg School of Public Health was among the first academic institutions to recognize and leverage the symbiotic relationship between health research and its practical application. Our Center will build on this legacy by working at the intersection of policy, research and education to understand and control this global epidemic. In addition to the leading public health researchers at the Bloomberg School, the Center draws on top faculty from across the University, ranging from the Whiting School of Engineering to the Johns Hopkins Medical Institutions.

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