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DEMENTIA

The Global Fight Against Dementia

VERY FEW OF THOSE READING THIS EDITORIAL WILL HAVE HAD NO CONTACT WITH the devastating consequences of dementia. Dementia, caused by a variety of neurodegenerative conditions, including Alzheimer's disease, occurs in 35% of individuals over 80 years of age (1). The disease ravages cognitive abilities, affecting not only the person with dementia but also the lives of family members acting as their caregivers. Despite decades of research aimed at identifying the mechanisms underpinning the neurodegenerative processes causing dementia, and despite the fact that the cascade of events characterizing neurodegeneration is now known to occur decades before any clinical manifestations, there are still no therapies that can prevent or modify the course of dementia. The current health and welfare systems of the developed world are not adapted to deal with the huge health and social pressures wrought by dementia. Because of the aging of the populations in the developed world, the number of individuals with dementia is calculated to double by 2050 in Group of Eight (G8) countries (2). Furthermore, in low- and middle-income countries, the number of those affected by dementia is set to quadruple by 2050 as people live longer due to a decline in infectious diseases (2). The scale of this impending health disaster requires a concerted global effort to tackle dementia at all levels. The World Health Organization (WHO) is set to sponsor the First Ministerial Conference on Global Action Against Dementia in March 2015 in Geneva, Switzerland. The principal goal is to develop a global action plan to address the challenges of dementia using as a basis the discussions that have taken place in a series of events in the past year.

In 2012, WHO recognized dementia as a global public health priority (1). Until then, multiple actions were launched by national governments (such as those of France, UK, USA, and Canada) and by the European Union (for example, the Joint Programming Initiative on Neurodegenerative Diseases and the Innovative Medicines Initiative). Although some progress has been made, it is now clear that a coordinated global effort is needed. The first step toward a concerted global effort was taken by the UK's Prime Minister David Cameron in 2013, who as president of the G8 at that time, called for a G8 Summit on Dementia in December 2013 in London. It was at this summit that Global Action Against Dementia (GAAD) was launched (<http://bit.ly/12Fre3T>). Dennis Gillings, a consultant to the pharmaceutical industry, was appointed as the Global Dementia Envoy to coordinate the international efforts of GAAD. A World Dementia Council was appointed to support the Envoy and to oversee GAAD, with concurrent support from WHO and the Organisation for Economic Cooperation and Development (OECD). Composed of 18 members from nine countries representing funding agencies, governments, international organizations, industry, academia, and patients' associations, the Council met three times in 2014 with support from the UK government. Specifically, the Council is focusing on five priority areas: (1) integrated development (addressing the global regulatory barriers to drug development, encouraging innovative collaborative research, ensuring effective public policy-making governance), (2) financial innovations and incentives, (3) open science and data, (4) care of patients with dementia, and (5) dementia risk reduction (<http://bit.ly/12FsdRR>).

The G8 countries attending the 2013 London Summit also agreed to hold three Legacy events in 2014 to contribute to different components of a coordinated global action. Each of the three 2014 Legacy events focused on a different aspect of this coordinated action. The first Legacy event, organized by the UK government, took place in June 2014 in London. It focused on financial and social solutions to enhance innovation. Discussion centered on the barriers to investment in dementia research and the optimal level of risk management between industry and public investment in an area where the pharmaceutical industry has experienced major failures in the past decade. There was also discussion of new avenues to increase investment for collaborative research, including innovative financial mechanisms such as social investments similar to World War II bonds.

The second Legacy event, coorganized by Canada and France, took place in Ottawa, Canada, in September 2014. It focused on ways to enhance synergies between academia and industry. Approaches to support biotech and academic start-ups were also discussed, as

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were ways to change pharma's strategy in pursuit of successful treatments for dementia. The Legacy event delegates agreed that there was an urgent need for academia and industry to work much more closely together in an open environment and with a better adapted regulatory framework. Indeed, the European Medicines Agency recently launched the revision of its existing guidelines on medicinal products for the treatment of Alzheimer's disease and other dementias (<http://bit.ly/1s1qLFF>). Discussions are now occurring among major regulatory bodies worldwide to give pharma the confidence that successful drug development for dementia is possible and to provide incentives to make this happen. At the same time, OECD is supporting an important action aimed at identifying specific examples of global open access (e.g., sharing of big data and of compound libraries) to accelerate research on the causes of and treatments for dementia. Also discussed during the second Legacy event was the importance of the medical device industry and IT industry regarding their contributions to both the early detection of dementia and the care of those with dementia. For example, geolocation devices could help clinicians and caregivers to monitor patients with dementia in a noninvasive manner in order to curb wandering behavior.

The third Legacy event, organized by Japan in November 2014 in Tokyo, focused on the prevention of dementia and care of those with dementia. In the country where the first action was taken to lessen the stigma of dementia in society through the Dementia Supporter Program, discussions focused on innovative behavioral and social approaches for prevention and care. The different approaches to the care of patients with dementia by health services in different countries were discussed, contrasting between models based on specialized services and those where services are inserted into an existing primary health care system. In addition, there was discussion of a new generation of care robots to support caregivers of those with dementia.

After each Legacy event, the Global CEO Initiative on Alzheimer's Disease (www.ceoalzheimersinitiative.org) brought together corporate members of industry along with leading nongovernmental partners to help transform the Legacy event discussions into specific, implementable actions for all stakeholders to accelerate the discovery of disease-modifying drugs and solutions. Simultaneously, OECD is supporting GAAD by piloting a number of efforts including the handling of big data.

The efforts of the World Dementia Council and GAAD will culminate in March 2015 with the WHO-sponsored conference. The invitation by the WHO Director General, Margaret Chan, will extend beyond G8 countries to include low- and middle-income countries that are facing the same challenges regarding the increase in numbers of individuals with dementia. In fact, nearly half of individuals with dementia live in China and Southeast Asia. The Geneva conference will extend the plan for GAAD to all countries with the goal of enhancing awareness; deploying evidence-informed prevention, care, and services; boosting investment in research; and encouraging international collaborations. It is hoped that the Geneva conference will drive countries to move from commitment to action.

The UK-initiated GAAD, which began in December 2013, has already yielded international collaborative efforts. One example is the unique discussion among a number of the world's regulatory bodies with the goal of lowering regulatory barriers, stimulating industry to reinvest in dementia research and development, and promoting the sharing of clinical data. One lesson learned is that high-level political commitment does make a difference in the face of a major global health challenge. As the changing demographics make dementia a serious global health threat that is set to bankrupt the health economies of many, if not most, countries, a concerted global action plan for dementia has never been more necessary. Its success will depend upon the ability of all countries, sectors, pharma, industry, health care providers, and academia, along with patients and their families, to unite in a truly collaborative effort.

– Yves Joannette, Etienne C. Hirsch, Michel Goldman

1. WHO, *Dementia: A Public Health Priority* (WHO, Geneva, Switzerland, 2012).
2. Alzheimer's Disease International, *The Global Impact of Dementia 2013–2050—Policy Brief for Heads of Government* (Alzheimer's Disease International, London, UK, 2013).

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