insurance is too low. We recommend that professional counselling services for carers be developed, although not necessarily within the LTCI framework.

Second, carers would benefit from closer ties to neighbours and local people in similar situations, and some long-term care programmes would be more effective if channelled through community organisations. Recent initiatives include small-scale multifunction centres, which combine day care, respite care, and limited home help to a group of recipients living in a small area, with family members and other residents involved. Community comprehensive assistance centres deal broadly with ageing and caring issues, including care management for lightcare cases, dealing with elder abuse, and linking with local social organisations: these centres should be developed further.25 Public and community leaders have been mobilised to form so-called dementia supporter networks in many localities. We recommend more communitybased efforts.

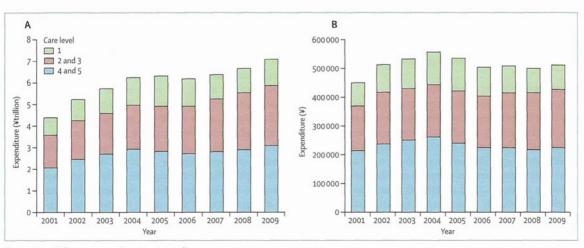
Our analysis showed that the introduction of LTCI led to more jobs and increased work hours for carers in upper-income households, but not middle-income and lower-income households even though the time devoted to caring decreased. Women from lower-income households worldwide face barriers to getting the best jobs, but this tenet has been especially true in Japan.64 Although long-term care policy cannot have a major effect on labour market inequalities, modest reforms can be helpful in some cases. For women who want to build a career, specialised employment training should be made available, perhaps coordinated with the older person's day-care schedule. Such training might be crucial when the older person dies or is institutionalised. The more typical middle-aged and older-aged family carers need more opportunities to get good part-time jobs. The LTCI system itself has been a major provider of jobs for women, many of whom have trained for certification as careworkers and other roles. From 2000

to 2010, the number of certified careworkers increased from 210 000 to 900 000, and that of certified social workers from 24 000 to  $134\,000$ .

Japan's comprehensive LTCI programme is necessarily expensive, and keeping costs manageable has been a constant preoccupation of the government. Figure 3 shows that total spending rose rapidly in the first 5 years. By 2005, yearly expenditure (excluding the 10% client co-payment) had risen to about \$5.5 trillion (US\$44 billion at purchasing power parity), roughly 20% higher than originally forecast. The larger than expected increase was due to greater than expected enrolment as a result of the liberal eligibility criteria (two-fifths of those certified would not have been eligible if German enrolment criteria had been applied). This trend was unsustainable, but the most direct remedy, tightening eligibility standards to lower enrolment, was not politically feasible.

The government's solution was to introduce a scheme to place the lowest need people (about 25%) into a new programme of preventive caring, with various restrictions that made it both less expensive for the government to provide services and less attractive for recipients to use them. <sup>25</sup> As a result, both enrolment and spending in low-care groups, which had been growing rapidly, decreased slightly in 2006, and then remained about level. The core of the LTCI programme was not changed much: people with the greatest care needs living at home were not affected at all, and those in nursing homes took on a bigger share of room and board costs than before (although many were exempt because of low incomes). <sup>25</sup>

After 2006, total enrolment and expenditure began to increase again (figure 3). This trend was inevitable, because the proportion of older people continued to increase while the benefit structure and eligibility criteria stayed the same. However, the 2006 reform seems to have achieved a successful structural change (figure 3).



Spending per person aged 75 years or older (the highest users) decreased from 2004 to 2006, and then plateaued. Growth in spending was now the sole result of increases in the size of this age group. Constraining spending more severely would require cutting coverage, benefits, or both, which would be quite difficult. An effort to distribute the burden differently between age groups or between tax and premium revenues is more likely.

Although the percentage of older people in the population will continue to rise until the mid-21st century, because of the shrinking younger population, the absolute number of people aged 65 years and older will level off in around 2015 and from around 2025 for those 75 years and older. Thus, the next 15 years are a crucial period, when the direct costs of supporting older people will grow rapidly. Note that total government revenue (mainly taxes and social insurance premiums) in Japan was 33.5% of gross domestic product in 2007, which was lower than the USA (34.0%) and well below the UK (41.4%), Germany (43.9%), France (49.6%), and Sweden (56.3%). The key to dealing with the costs of long-term care and other supports for older people, not to mention quite a few additional national problems, is for Japan's public financing to become more in line with other developed countries.

Other problems, although serious, are more or less the same in Japan as elsewhere. The first problem is Japan's over-reliance on institutions, which are expensive and are regarded as offering poor quality of life; specialised housing (assisted living) can help but is only now gaining credence in Japan. 25,29 The second is human resources: careworkers everywhere have lower pay, more difficult working conditions, and lower chances of promotion than do workers in other specialties. More careworkers are needed every year but they are difficult to recruit and retain. Third, coordination needs to be improved between the quite different sectors of long-term care and medical care, from the level of serving individual clients or patients, through to institutions such as hospitals and nursing homes, up to national planning and management. Both sectors are crucial for provision of good care, but cooperation is hard to achieve. Specialists in all countries can learn from each other about solutions to these common problems.

#### Lessons for other countries

Policy makers in both developed and developing nations can benefit from Japan's experience in initiating one of the world's most comprehensive long-term care systems to cope with the world's most rapidly ageing population. South Korea and Taiwan have started or planned long-term care programmes largely on the basis of the Japanese approach, and specialists from countries with developed systems have been looking into specific Japanese innovations.

Unlike nations that rely on cash for care in long-term care policy, Japan provides formal services only, on the grounds that family carers benefit most by direct help with their tasks, and that quality of care is best assured by relying on trained, licensed, and supervised careworkers. In particular, with extensive day care, many frail older people regularly get out of the house, socialise with peers. participate in activities beneficial to health, and are monitored by staff while their family carers have some time off. Evidence from Europe indicates that nations that provide only services have a more egalitarian or progressive pattern of care provision than do nations that rely on cash allowances.26,36 Although cash for care is often regarded as cheaper, Japan, even with its far higher coverage and benefit levels, spends only about 30% more on home-based care than does Germany (figure 1).28 The South Korean Government essentially opted for a services-only strategy after careful investigation of longterm care systems around the world, and specialists in Taiwan hope to implement a similar system. 68,69

In Japanese home-based care, recipients choose the services that they want, up to a limit determined by the level of physical and mental impairment, and they also choose providers. Providers are licensed and supervised by local government, but the main mechanism for quality control is consumer choice, since providers can easily be changed. Nearly all recipients choose to have a care manager, who can provide expert advice at no out-ofpocket cost. Care managers come from related occupations, and must pass an exam and complete a 44 h training course. They are employed by a specialised agency or, more often, a service provider; despite early worries about conflicts of interest, most seem to serve the clients' interests well in practice. Their main tasks are to coordinate with other providers (particularly family physicians and hospitals), manage service provision and reimbursement, and help recipients and carers to make decisions. Care managers are not trained for counselling and, with a normal caseload of 30 clients, they do not have much time for it, but qualitative research suggests that many carers share their individual problems with their care managers and value the interaction.70 In July 2008, Germany started a programme of care management partly based on Japan's experience.30,68

The fact that Japan's LTCI system has performed well for more than a decade with few changes in its basic design is indicative of the careful preparation by the government. Since the programme is comprehensive, systematic data gathering can facilitate comparisons of effectiveness and cost across regions and programmes (although such analysis could be improved if the data were in a more usable form). Having many functions under one programme allows effective supervision. Municipal officials manage the system and have some scope to balance the services that they offer against the premiums paid by their older residents (a sixth of their expenditure). Every 3 years each municipality has to draw up a work plan, which has also become the occasion for national reassessment and reforms, accompanied increasingly by debate among practitioners, experts, and

interested citizens. This triennial cycle has allowed many small adjustments, such as balancing the fee schedule for services, and even as big a structural reform as the lower-cost preventive care system initiated in 2006.

Most long-term care programmes also cover younger disabled people. A so-called age-blind policy is attractive in principle, and if the programme centres on cash allowances young and old can be treated similarly without many difficulties. However, the needs and preferences of most frail older people and their families are quite distinctive; most younger disabled people want employment training, a normal independent life, and control over the organisations serving them. The Japanese approach, with formal services designed specifically for older people (with separate programmes to serve younger disabled people), is more effective and efficient, and is the direct solution to the difficulty that governments most worry about: how to deal with the increasing numbers of frail older people.

#### Contributor

All authors contributed to the study concept, design of the report, data analysis, and interpretation of the results. NT, HN, JCC, and AN provided the outline and JCC drafted the report. HN, NT, and AN were responsible for empirical analysis and synthesis of findings. HH, MRR, KS, NI, and IK contributed to drafting and critical revision. All authors contributed to the discussion and have seen and approved the final version of the report.

#### Conflicts of interest

We declare that we have no conflicts of interest.

#### Acknowledgments

This work is in part funded by the generous support from the Bill & Melinda Gates Foundation and the China Medical Board, partly by a research grant from the Ministry of Health, Labour and Welfare (H22-seisaku-shitei-033), and partly by a research grant from Pfizer Health Research Foundation to NT. AN acknowledges support from the Nakajima Foundation in Japan for his academic endeavours at Harvard University. We thank Keizo Takemi, Thomas Inui, Yan Guo, Bong-Min Yang, and Hidehiko Ichimura for their valuable comments; Masayo Kashiwagi, Mikiya Sato, Li-Mei Chen, Hideto Takahashi, Gohei Kato, Pedro Olivares-Tirado, Tomoko Ito, and postgraduate students in the Department of Health Services Research, University of Tsukuba, for their academic support; Susan Hubbard for her technical edits; Hiyuko Fujita, Tomoko Suzuki, and Tadashi Yamamoto (Japan Center for International Exchange) for their administrative support; and Ruth Campbell for steady support. The views and opinions expressed by the independent authors in this report are provided in their personal capacity and are their sole responsibility.

#### References

- 1 UN Population Division. World population prospects: the 2010 revision population database. http://esa.un.org/unpd/wpp/index. htm (accessed Aug 1, 2011).
- National Institute of Population and Social Security Research (IPSS). Population statistics of Japan 2008. http://www.ipss.go.jp/p-info/e/psj2008/PSJ2008.pdf (accessed July 25, 2011).
- 3 Cabinet Office. Executive summary on an international comparison of life and attitude survey among old people (Dai 6 kai koureisha no seikatsu to ishiki ni kansuru kokusai hikaku chosa). http://www8. cao.go.jp/kourei/ishiki/h17\_kiso/19html/1mokuteki.html (accessed July 25, 2011).
- 4 Organisation for Economic Co-operation and Development (OECD). Pension at a glance 2009: retirement-income systems in OECD countries. Paris: OECD Publishing; 2009.
- 5 Horioka CY, Okui M. A US-Japan comparison of the importance and determinants of retirement saving. Econ Lett 1999; 65: 365-71.
- Hayashi F. Understanding saving; evidence from the United States and Japan. Cambridge: MIT Press, 1997.

- 7 Jones R. Inequality, poverty and social spending in Japan (No. 556). Paris: OECD Publishing, 2007.
- 8 Murozumi M, Shikata M. The structure of income in elderly households and relative poverty rates in Japan from the viewpoint of international comparisons. http://www.lisproject.org/ publications/liswps/483.pdf (accessed July 25, 2011).
- WHO. World Health Statistics 2010. Geneva: World Health Organization, 2010.
- 10 Muennig PA, Glied SA. What changes in survival rates tell us about US health care. Health Aff (Millwood) 2010; 29: 2105–13.
- Organisation for Economic Co-operation and Development (OECD). OECD Health Data 2011: statistics and indicators. Paris: OECD. 2011.
- Ministry of Health, Labour and Welfare (MHLW). Comprehensive Survey of People's Living Conditions (CSPLC; Designated Statistical Survey) (Kokumin Seikatsu Kiso Chosa). http://www.mhlw.go.jp/ toukei/list/20-19-1.html (accessed July 25, 2011).
- 13 Department of Economic and Social Affairs of the United Nations. World Economic and Social Survey 2007: development in an ageing world. Department of Economic and Social Affairs of the United Nations. http://www.un.org/en/development/desa/policy/wess/ wess\_archive/2007wess.pdf (accessed July 25, 2011).
- Ministry of Internal Affairs and Communications, Statistics Bureau, Director-General for Policy Planning (Statistial Standards) & Statistical Research and Training Institute. A Bulletin Board from Census 2010. (Heisei 22 nendo kokusei chosa sokuho shukei). http://www.e-stat.go.jp/SG1/estat/GL08020103.do?\_toGL08020103\_&tclassID=000001032402&cycleCode=0&requestSender=search (accessed July 25, 2011).
- 15 Hashizume Y. Gender issues and Japanese family-centered caregiving for frail elderly parents or parents-in-law in modern Japan: from the sociocultural and historical perspectives. Public Health Nurs 2000; 17: 25–31.
- 16 Asai MO, Kameoka VA. The influence of Sekentei on family caregiving and underutilization of social services among Japanese caregivers. Soc Work 2005; 50: 111–18.
- 17 Long SO, Harris PB. Gender and elder care: social change and the role of the caregiver in Japan. Soc Sci Japan J 2000; 3: 21.
- 18 Christensen K, Doblhammer G, Rau R, Vaupel J. Ageing populations: the challenges ahead. *Lancet* 2009; 374: 1196–208.
- 19 Kögel T. Did the association between fertility and female employment within OECD countries really change in sign? I Pop Econ 2004; 17: 45–65.
- 20 Campbell JC, Ikegami N. Long-term care insurance comes to Japan. Health Aff (Millwood) 2000; 19: 26–39.
- 21 Campbell JC. How policies change: the Japanese Government and the aging society. Princeton: Princeton University Press, 1992.
- 22 Yoshihara K, Wada M. The history of Japanese health policies (Nihon Iryo Hoken Seido Shi). Tokyo: Toyo Keizai Shinpo Sha, 2008.
- 23 Ministry of Justice. Long-term Care Insurance Act (Kaigo hoken hö) 1997. http://www.japaneselawtranslation.go.jp/law/detail\_ main?vm=&id=94 (accessed July 25, 2011).
- 24 Campbell JC. How policies differ: long-term care insurance in Japan and Germany. In: Luetzeler R, Conrad H, eds. Aging and social policy: a German-Japanese comparison. Munich: Iudicium, 2002.
- 25 Tsutsui T, Muramatsu N. Japan's universal long term care system reform of 2005: containing costs and realizing a long-term vision. J Am Geriatr Soc 2007; 55: 1458–63.
- Rodrigues R, Schmidt A. Paying for long-term care. Vienna: European Centre for Social Welfare Policy and Research, 2010.
- 27 Campbell JC, Ikegami N. Japan's radical reform of long-term care. Soc Pol Admin 2003; 37: 21–34.
- 28 Campbell JC, Ikegami N, Gibson MJ. Lessons from public long-term care insurance in Germany and Japan. Health Aff (Millwood) 2010; 29: 87–95.
- 29 Colombo F, Llena-Nozal A, Mercier J, Tjadens F. Help wanted? Providing and paying for long-term care. OECD Publishing. http://www.oecd-ilibrary.org/social-issues-migration-health/help-wanted\_9789264097759-en (accessed July 25, 2011).
- 30 Rothgang H. Social insurance for long-term care: an evaluation of the German model. Soc Pol Admin 2010; 44: 436–40.

- 31 Ministry of Health, Labour and Welfare (MHLW). Report on various current states around LTCI (Kaigo hoken seido wo torimaku genjo). http://www.mhlw.go.jp/stf/shingi/2r985200000123iu-att/ 2r985200000123se.pdf (accessed July 25, 2011).
- 32 Ministry of Health, Labour and Welfare (MHLW). Monthly report on long-term care benefit expense (Kaigo kyufuhi jittai chosa geppo). http://www.mhlw.go.jp/seisakunitsuite/bunya/hukushi\_ kaigo/kaigo\_koureisha/topics.html (accessed July 25, 2011).
- 33 Swedish Association of Local Authorities and Regions. Care of the elderly in Sweden today. Stockholm: Ordförrådet AB, 2006.
- 34 Tamiya N, Noguchi H, Hashimoto H, Shibuya K, Nishi A. An empirical analysis of the impacts of LTCI on people's quality of life Based on scientific evidence from Comprehensive Survey of People's Living Conditions (CSPLC) from 1998 and 2004 (Koteki kaigo hoken no donyu koka ni kansuru jisshoteki kenkyu kokumin seikatsu kiso chosa ni motozuku kagakuteki ebidensu no kochiku e mukete). In: Shibuya K, ed. Comprehensive assessment of the health system in Japan (Wagakuni no hoken iryo seido ni kansuru hokatsuteki jisho kenkyu). Tokyo: Ministry of Health, Labour and Welfare, 2011.
- 35 Price Policy Division, Quality-of-Life Policy Bureau, Cabinet Office. Report on the long-term care market (Kaigo service shijo no isso no koritsuka no tame ni). Government of Japan. http://www.caa.go.jp/ seikatsu/2002/0807kaigo/a-1.pdf (accessed July 25, 2011).
- 36 Theobald H. Conditions and challenges of Germany's long-term care insurance: care policies and inequalities based on gender, socio-economic class and ethnicity. J Asian Women's Studies 2010; 18: 1–23.
- 37 Kuzuya M, Masuda Y, Hirakawa Y et al. Day care service use is associated with lower mortality in community-dwelling frail older people. J Am Geriatr Soc 2006; 54: 1364–71.
- Nishi A, Tamiya N, Kashiwagi M, Takahashi H, Sato M, Kawachi I. Mothers and daughters-in-law: a prospective study of informal care-giving arrangements and survival in Japan. BMC Geriatr 2010; 10: 61
- 39 Kato G, Tamiya N, Kashiwagi M, Sato M, Takahashi H. Relationship between home care service use and changes in the care needs level of Japanese elderly. BMC Geriatr 2009; 9: 58.
- 40 Nishiwaki T, Ueno K, Hasegawa M, Nakamura K. The usefulness of day-service in maintaining general nutritional status in elderly Japanese: a longitudinal study. *Tohoku J Exp Med* 2007; 211: 15–21.
- 41 Ishibashi T, Ikegami N. Should the provision of home help services be contained?: validation of the new preventive care policy in Japan. BMC Health Serv Res 2010; 10: 224.
- 42 Tomita N, Yoshimura K, Ikegami N. Impact of home and community-based services on hospitalisation and institutionalisation among individuals eligible for long-term care insurance in Japan. BMC Health Serv Res 2010; 10: 345.
- 43 Sugisawa H, Nakatani Y, Sugihara Y. Evaluation on long-term care insurance: perspective of older care recipients and their family (Kaigo hoken seido no hyoka: koureisha kazoku no siten kara). Tokyo: Sanwa Shoseki, 2004.
- 44 Kumamoto K, Arai Y, Zarit S. Use of home care services effectively reduces feelings of burden among family caregivers of disabled elderly in Japan: preliminary results. Int J Geriatr Psychiatry 2006; 21: 163–70.
- 45 Arai Y, Kumamoto K. Caregiver burden not 'worse' after new public long-term care (LTC) insurance scheme took over in Japan. Int J Geriatr Psychiatry 2004; 19: 120–26.
- 46 Hirakawa Y, Kuzuya M, Enoki H, Hasegawa J, Iguch A. Caregiver burden among Japanese informal caregivers of cognitively impaired elderly in community settings. Int J Geriatr Psychiatry 2008; 46: 367–74.
- 47 Freeman S, Kurosawa H, Ebihara S, Kohzuki M. Caregiving burden for the oldest old: A population based study of centenarian caregivers in Northern Japan. Arch Gerontol Geriatr 2010; 50: 282–91.
- 48 Hirakawa Y, Masuda Y, Uemura K, Kuzuya M, Iguchi A. Effect of long-term care insurance on communication/recording tasks for in-home nursing care services. Arch Gerontol Geriatr 2004; 38: 101–13.
- 49 Suzuki W, Ogura S, Izumida N. Burden of family care-givers and the rationing in the Long-Term Care Insurance benefits of Japan. Sing Econ Rev 2008; 53: 121–44.

- 50 Kubota M, Babazono A, Aoyama H. Women's anxiety in old age and long-term care provision for the elderly. Acta Medica Okayama 2000; 54: 75–83.
- 51 Yamamoto N, Wallhagen M. The continuation of family caregiving in Japan. J Health Soc Behav 1997; 38: 164–76.
- 52 Shimizutani S, Noguchi H. What accounts for the onerous care burden at home in Japan?: evidence from household data. The Keizai Bunseki (The Economic Analysis) 2005; 175: 1–28.
- 53 Ministry of Health, Labour and Welfare (MHLW). The 2005 survey on employment management for women (Heisei 17 nendo josei koyo kanri kihon chosa). http://www.mhlw.go.jp/houdou/2006/08/ h0809-1/index.html (accessed July 25, 2011).
- 54 Iwamoto Y, Kohara M, Saito M. On the consumption insurance effects of long-term care insurance in Japan: evidence from micro-level household data. J Japanese Intl Economies 2010; 24: 99–115.
- 55 Weiner J. The role of informal support in long-term care. In: Brodsky J, Habib J, Hirschfeld M, eds. Key policy issues in long-term care. Geneva: World Health Organization, 2003.
- 56 Long SO, Campbell R, Nishimura C. Does it matter who cares? A comparison of daughters versus daughters-in-law in Japanese elder care. Soc Sci Japan J 2009; 12: 1–21.
- 57 Houde SC, Gautam R, Kai I. Long-term care insurance in Japan: implications for U.S. long-term care policy. J Gerontol Nurs 2007; 33: 7–13.
- 58 Huber M, Rodrigues R, Hoffmann F, Gasior K, Bernd M. Facts and figures on long-term care: Europe and North America. Vienna: European Centre for Social Welfare Policy and Research, 2009.
- 59 Nichibei LTCI Kenkyuukai. Elders and Families in Home Caregiving: Comparative Analysis of Urban and Rural Data (Zaitaku Kaigo ni okeru Koureisha to Kazoku: Toshi to Chihou no Hikaku Bunseki). Kyoto: Mineruba Shobou, 2010.
- 60 Cabinet Office. International comparison survey in life and way of thought among the elderly (Koreisha no Seikatsu to Ishiki Chosa). http://www8.cao.go.jp/kourei/ishiki/h22/kiso/gaiyo/ index.html (accessed July 25, 2011).
- 61 Watts J. Chaos greets birth of insurance system for Japan's elderly. Lancet 2000; 355: 1249.
- 62 Sorensen S, Pinquart M, Duberstein P. How effective are interventions with caregivers? An updated meta-analysis. Gerontologist 2002; 42: 356–72.
- 63 Dolores GT, Coon DW. Evidence-based psychological treatments for distress in family caregivers of older adults. *Psychol Aging* 2007; 22: 37–51.
- 64 Tachibanaki T. The new paradox for Japanese women: greater choice, greater inequality. Tokyo: I-House Press, 2010.
- Ministry of Health, Labour and Welfare (MHLW). Data on social welfare policies, certified social worker and care worker (Shisaku Joho, Shakaifukushishi Kaigofukushishi to). http://www.mhlw.go. jp/bunya/seikatsuhogo/shakai-kaigo-fukushi7.html (accessed July 25, 2011).
- Ministry of Health, Labour, and Welfare (MHLW). Annual report on LTCI (Kaigo hoken jigyo jyokyou houkokusho). http://www.mhlw. go.jp/topics/kaigo/osirase/jigyo/m10/1003.html (accessed July 25, 2011).
- 67 Jackson R, Howe N, Nakashima K. The global aging preparedness index. Washington: The Center for Strategic and International Studies. 2010.
- 68 Campbell J, Ikegami N, Kwon S. Learning and cross-national diffusion in social long-term care insurance: Germany, Japan, and the Republic of Korea. Int Soc Sec Rev 2009; 62: 63–80.
- 69 Wang C, Kuo N. Implications of German and Japanese long-term care insurance systems on development of long-term care insurance law in Taiwan. Gerontologist 2008; 48: 548.
- 70 Yamada M, Hagihara A, Nobutomo K. Coping strategies, care manager support, and mental health outcome among Japanese family caregivers. *Health Soc Care Community* 2008; 16: 400–09.

## Japan: Universal Health Care at 50 years 5



# Re-invigorating Japan's commitment to global health: challenges and opportunities

Rayden Llano, Sayako Kanamori, Osamu Kunii, Rintaro Mori, Teiji Takei, Hatoko Sasaki, Yasuhide Nakamura, Kiyoshi Kurokawa, Yu Hai, Lincoln Chen, Keizo Takemi, Kenji Shibuya

Over the past 50 years, Japan has successfully developed and maintained an increasingly equitable system of universal health coverage in addition to achieving the world's highest life expectancy and one of the lowest infant mortality rates. Against this backdrop, Japan is potentially in a position to become a leading advocate for and supporter of global health. Nevertheless, Japan's engagement with global health has not been outstanding relative to its substantial potential, in part because of government fragmentation, a weak civil society, and lack of transparency and assessment. Japan's development assistance for health, from both governmental and non-governmental sectors, has remained low and Japanese global health leadership has been weak. New challenges arising from changes in governance and global and domestic health needs, including the recent Great East Japan Earthquake, now provide Japan with an opportunity to review past approaches to health policy and develop a new strategy for addressing global and national health. The fragmented functioning of the government with regards to global health policy needs to be reconfigured and should be accompanied by further financial commitment to global health priorities, innovative non-governmental sector initiatives, increased research capacity, and investments in good leadership development as witnessed at the G8 Hokkaido Toyako Summit. Should this strategy development and commitment be achieved, Japan has the potential to make substantial contributions to the health of the world as many countries move toward universal coverage and as Japan itself faces the challenge of maintaining its own health system.

#### Introduction

With less than 5 years to achieve the Millennium Development Goals (MDGs) and an ever-increasing array of post-MDG challenges, such as a rising proportion of elderly people worldwide and the non-communicable disease epidemic, the worldwide community is in need of a new strategy for global health. Increasingly regarded as crucial to sustaining and expanding present global health efforts, the movement toward universal health coverage has been rapidly gaining traction in recent years, prompting WHO to make it the focal point of its 2010 world health report.<sup>2-4</sup>

However, seeking to provide affordable access to appropriate health services for all is an ambitious undertaking and will need a change in our understanding of global health, as recently put forth by Koplan and colleagues5 and Frenk.6 With restricted time and resources at our disposal, global health cannot simply be viewed as resource transfers from rich to poor countries. Instead, global health, defined as issues that directly or indirectly affect health but can transcend national boundaries, now needs real mutual partnership, a pooling of experience and knowledge, and a two-way flow between developed and developing countries. These needs are especially relevant if we are to successfully progress toward universal coverage, which will need the adoption of what Frenk calls "a process of shared learning among countries",6 whereby countries work together to expeditiously establish best processes for achieving universal coverage-a crucial effort that this Series in The Lancet aims to start through the lens of Japan.

#### Key messages

- Health is an important priority for Japanese people in domestic and foreign policy.
- There is a gap between the Japanese public's foreign policy priorities and how Japanese foreign assistance is allocated in reality. Although greater than 70% of the Japanese public rated health as the most important priority for Japanese foreign assistance, the Government of Japan only spends 2% of its total official development assistance on health.
- This priority gap exists because of substantial government fragmentation, a weak civil society, and a lack of transparency and assessment.
- Japan's health expertise in achieving some of the world's best health outcomes and universal coverage is underused in tackling global health challenges.
- Japan can overcome obstacles to effectively share and transfer its diverse national health expertise in pursuit of global health by establishing a high-level governmental global health committee, increasing its financial commitment to global health, promoting innovative initiatives in the non-governmental sector, increasing Japan's research capacity, and developing Japanese global health leadership.
- Japan should be more regionally engaged in helping developing Asian countries achieve universal health coverage and the Millennium Development Goals given its shared historical, geopolitical, and economic experiences.

Lancet 2011; 378: 1255-64

Published Online September 1, 2011 DOI:10.1016/S0140-6736(11)61048-9

This publication has been corrected. The corrected version first appeared at thelancet.com on September 30, 2011

See Comment Lancet 2011; 378: 1051

See Department of Error page 1218

See Series Lancet 2011; 378: 1106 and 1183

See Online/Comment DOI:10.1016/S0140-6736(11)61148-3

This is the fifth in a Series of six papers about Japan's universal health care at 50 years

Department of Global Health Policy, Graduate School of Medicine, University of Tokyo, Tokyo, Japan (R Llano BA, R Mori MD, H Sasaki MA, Prof K Shibuya MD); Global Issues Cooperation Division, International Cooperation Bureau, Ministry of Foreign Affairs of Japan, Tokyo, Japan (S Kanamori PhD); Institute of Tropical Medicine, Nagasaki University, Nagasaki, Japan (O Kunii MD): International Affairs Division Minister's Secretariat, Ministry of Health, Labour and Welfare of Japan, Tokyo, Japan (T Takei MD); Global Human Study, Graduate School of Human Sciences, Osaka University, Osaka, Japan (Prof Y Nakamura MD); The National Graduate Institute for Policy Studies, Tokyo, Japan (Prof K Kurokawa MD): Department of Oncology, Zhejiang University School of Medicine, Zhejiang, China (Prof Y Hai MD); The China Medical Board, Cambridge, MA, USA (Prof L Chen MD): and School of Political Science and

#### Economics, Tokai University, Kanagawa, Japan (Prof K Takemi MA)

Correspondence to:
Prof Kenji Shibuya, Department
of Global Health Policy, Graduate
School of Medicine, University of
Tokyo, 7-3-1, Hongo, Bunkyo-ku,
Tokyo 113-0033, Japan
shibuyak@m.u-tokyo.ac.jp

For data from the OECD see http://www.oecd.org

See Online for webappendix

As a healthy and prosperous country ranked first in the world in terms of life expectancy, Japan is uniquely positioned to share its technical expertise and experiences in domestic health provision with the global community in pursuit of better global and regional health outcomes. Although Japan's achievements in domestic health are not necessarily directly attributable to strategic, evidence-based policy making, much can be learned from Japan's accumulated experience over five decades of providing universal insurance coverage, long-term care, and some of the world's best maternal, newborn, and child health care. However, to convey these lessons to the worldwide community there is need for substantial funding, a rigorous system of assessment, developed

human resources in global health, and effective bridges between Japan's global health community and its domestic health experts—the gatekeepers of Japan's accumulated health knowledge and experience. However, so far, all of these inputs have been lacking in Japan's approach to global health.

Burdened with new domestic challenges such as a rapidly growing elderly population, soaring budget deficits, low economic growth, and a recent national disaster, <sup>12</sup> Japan is now at a turning point in terms of redefining its commitment to and strategy in global health. Will it be able to fulfil its responsibility as a citizen of the global community to share its vast knowledge and expertise in health care?

Our aim is to show how Japan can be a more effective contributor in the pursuit of global health. We recognise that, in the 21st century, addressing global health challenges increasingly needs attention to be paid to many issues beyond health care, ranging from environmental pollution to food safety. However, a discussion of Japan's engagement on such issues is beyond the scope of this Series, which focuses on the issue of universal coverage. Consequently, we will specifically address how Japan can more effectively leverage and transfer its accumulated expertise in domestic-health provision into the global health arena. We first review Japan's health diplomacy contributions up to now and assess Japan's core competencies and limitations in global health.13-15 We conclude with key recommendations on how Japan can strengthen its commitment to and effect on global health in addition to a new Japanese vision for regional and global health engagement.

#### Search strategy and selection criteria

To establish the nature and extent of Japan's commitment to global health, we used three separate but interlinked research strategies. First, we systematically reviewed published work to identify the key aspects of global health, Japanese policy in global health, and the level of public support in Japan. Our search terms included "Japan\*, Nippon, Nihon", "assistan\*, don\*, aid", "health\*, water, sanitation, hygien\*", "education", "view\*; opinion", "competen\*, limitation\*, advantage\*, disadvantage\*, strength, weakness", and "definition\*". Our search strategy involved keywords in both English and Japanese. We included any comparative study that included interventional and observational aspects of Japanese development assistance for health. We excluded published work that considered development assistance as a whole, by other countries, or both. Our search strategy involved a search of databases, including Medline, the Cochrane Library, Embase, POPLINE, African Health Line, and LILACS; a search of the websites of various Japanese ministries, the Organisation for Economic Co-operation and Development (OECD), the UN, other international organisations, bilateral agencies such as the Japan International Cooperation Agency (JICA), and other sites identified during the search process; a search of the bibliographies of research reports identified by the above methods for reference to other studies suitable for inclusion; contacting the authors of key reports for information about other studies missed by the above methods; and contacting known or recommended experts in the specialty. Published work we identified was critically appraised by RL, RM, and SK. All disagreements were resolved through a process of discussion with the other co-authors.

Second, we did a descriptive analysis of Japan's development assistance for health with data from the ministries of foreign affairs, health, labour and welfare, finance, and education, science, and technology; JICA; Japan Federation of Economic Organisations; the MOFA-NGO Regular Meeting Network on the Global Issues Initiative on Population and AIDS and the Okinawa Infectious Diseases Initiative; and other agencies. We reviewed and assessed the datasets rigorously for their quality, consistency, and comparability within the framework of internationally comparable development assistance for health. We also used other publicly available data from the Institute for Health Metrics and Evaluation and the OECD Development Assistance Committee to assess trends and make international and intersectoral comparisons.

Finally, we supplemented our search with results from a new national survey on general official development assistance, which sought information about public attitudes toward Japanese global health policy. This survey was administered by the Cabinet Office between June 17 and 27, 2010. We employed a two-stage stratified random sampling process to obtain a nationally representative sample with the most recent national census. Face-to-face interviews were done by members of a research firm with experience in public-opinion polls. The survey included a module about the public's view of Japan's contributions to global health (webappendix).

#### Japan's global health framework Origins of global health diplomacy

After the end of World War 2, Japan was left in search of a new foreign-policy direction. No longer able to maintain military forces because of the constraints imposed by its pacifist constitution after the war, the Japanese Government decided "to contribute to the peace and development of the international community". This foreign policy shift was both motivated by humanitarian considerations as well as an understanding that, in our interconnected world, Japanese security and prosperity is invariably tied to the development and stability of developing countries. Since then, Japan has pursued peacetime development through its official development assistance programme (ODA), which has been used to serve varying Japanese interests over the years. Description of the constraints of the serve varying Japanese interests over the years.

While Japan was developing economically in the 1950s and 1960s, Japanese ODA was tied to the purchase of Japanese products, thereby expanding Japan's export market while simultaneously providing assistance to developing countries.<sup>21</sup> However, starting in the late 1970s and progressing into the 1990s, Japan began using its ODA to promote closer ties with its Asian neighbours

and to increase Japan's power and influence in the world at large, much like China is doing now.<sup>20,22</sup> These efforts were characterised by a substantial increase in ODA in the 1980s and 1990s, which ultimately led Japan to become the largest ODA donor in the world between 1991 and 2000.<sup>20</sup>

For many years, Japanese ODA was geared towards peace building and geopolitical activities. <sup>21</sup> However, in 1998, realising that sustainable "economic growth and human development require not only political stability but other favourable...social factors as well," <sup>23</sup> the Japanese Government adopted human security as the cornerstone of its foreign policy, which expanded the scope of Japan's ODA to other humanitarian concerns. Seen as an integral part of promoting one of the fundamental tenets of human security—freedom from want—health came to be viewed as an indispensable part of Japan's development assistance.<sup>24</sup>

#### Players in global health

Less than a decade after the devastation of World War 2, in 1954, Japan emerged as an ODA donor country on joining the Colombo Plan, an intergovernmental initiative that provided aid to developing Asian countries. At the time, the country was fragile, the economy had still not recovered, and Japanese society was tirelessly rebuilding itself. With most of the country's attention focused on its own domestic development, the Japanese Government emerged as the dominant player in implementing Japan's global health agenda, coordinating primarily with major international organisations, such as UNICEF and the World Bank.

Japan's own bilateral development agency, the Japan International Cooperation Agency (JICA), was established in 1974 to address global issues, reduce poverty through equitable growth, improve governance, and achieve human security around the world. In 2008, JICA merged with the Japan Bank for International Cooperation. This merger enabled the new JICA to use the loan scheme for aid and become the second largest overseas assistance agency after the World Bank. Until then, JICA's assistance scheme was confined to technical cooperation and grant aid, which severely restricted the size and scale of the development assistance projects that Japan could undertake.

Despite the rapidly changing landscape of the global health community, Japan's government-dominated, ODA-focused development framework is still in place today. Even though the number of non-governmental organisations (NGOs) contributing to global health has increased since the 1980s, Japanese civil society remains small, fragmented, and still primarily dependent on government funding because of the historical lack of charitable contributions and lack of tax exemptions for private donations.<sup>26</sup> The contributions of academic institutions and independent think tanks to global health is also slight. Although there are more than

80 departments of public health in medical schools and three schools of public health in Japan, only a handful of them are actively engaged in global health research and education. As for Japan's for-profit sector, although there have been a few exceptions, Japanese companies have remained largely uninvolved in global health efforts despite being uniquely positioned to make important contributions through their comparative advantages in technology and technical expertise. Central to this ongoing lack of engagement has been a concerning unawareness of global health problems among the Japanese public, which can be explained at least in part by insufficient Japanese media coverage of global health issues.

#### Guiding principle of aid

Japan's foreign assistance policy is to a large extent shaped by Japan's view of assistance as part of a partnership with developing countries. To It follows then that Japan's assistance approach focuses on the requests of recipient countries, according to the tenet of self-help and country ownership. To this end, Japan has focused its health ODA on capacity building and sustainability, which is unique among major donors. With few exceptions, Japan's emphasis on self-reliance also keeps the Japanese Government from providing general, unspecified budget support to the recipient country's health sector—a practice that has become popular among European donors. To

The principles of demand-driven assistance, however, have not always worked out in practice as the demands of recipient governments and the actual needs of beneficiaries are not always consistent. The potential pitfalls of this approach are readily evident in Japan's health assistance to Sri Lanka between 1978 and 1988. At the request of the Sri Lankan Government rather than an objective assessment of Sri Lanka's health needs, the Japanese Government funded the construction of a large tertiary hospital. Despite accounting for more than a third of all Japanese health aid to Sri Lanka between 1978 and 1988, the 1001-bed hospital was severely underused, with only 66% of the beds being commissioned 3 years after it opened—a clear indication that the project did not adequately consider Sri Lanka's health priorities and the health sector's absorptive capacity.29

To be fair, the donor-driven approach of recent global health initiatives has also been the subject of some debate, most notably because global health initiatives tend to focus on their own specific targets, sometimes to the detriment of other health needs identified by the recipient country. In view of this focus, Japan's willingness to consider the requests of recipient countries is potentially advantageous. However, for this development approach to be effective, objective assessments of the recipient countries' health needs are essential to guide Japan when considering ODA requests in addition to rigorous monitoring and assessment.

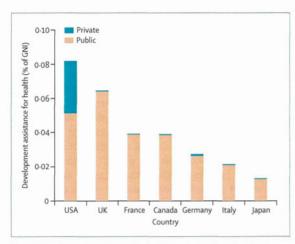


Figure 1: Development assistance for health as a proportion of national income by channels of assistance, 2008<sup>14,35</sup> GNI=gross national income.

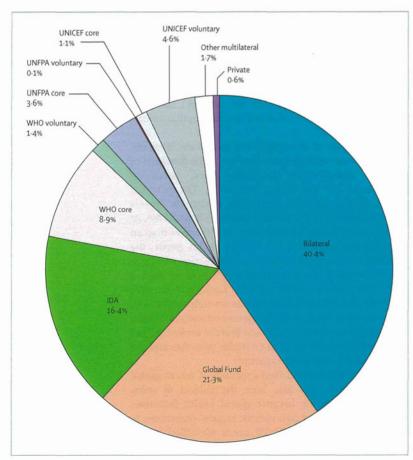


Figure 2: Allocation of Japanese development assistance in health, 2008<sup>14</sup>
Data also from Ministry of Foreign Affairs; Ministry of Health, Labour and Welfare; Ministry of Finance; and Ministry of Education, Science, and Technology; the Japan International Cooperation Agency; Japan Federation of Economic Organisations; and the MOFA-NGO Regular Meeting Network on the Global Issues Initiative on Population and AIDS and the Okinawa Infectious Diseases Initiative, 2010 (unpublished). UNFPA=United Nations Population Fund. IDA=International Development Association. Global Fund=Global Fund to Fight AIDS, Tuberculosis and Malaria

However, so far, investigation of the effect of Japanese ODA has been limited by resistance from bureaucrats to independent assessment.<sup>31-33</sup> It was only in 2008 that an ODA advisory committee assessed Japan's development assistance for health for the first time. The positive side of the assistance was characterised in terms of the elaborateness of follow-up activities, consistency, and elaborateness in planning. The weaknesses included slow decision making, rigid financial scheduling, lack of flexibility at the community level, and lack of integration between bilateral and multilateral assistance.<sup>31</sup> These findings are limited, however, by the fact that the review was qualitative in nature and ad hoc.

#### Recent trends in assistance for health

Although the Ministry of Foreign Affairs sets Japanese global health policy, the lack of rigorous reporting and assessment makes it difficult to track and assess Japan's development assistance for health (DAH), which includes both public and private sources of funding. So far, there have been no comparative studies on DAH in Japan, and discrepancies exist in the DAH data available from different organisations. Moreover, the classification system and definition of financial data on Japanese ODA has varied over the past 15 years. As a result, it is difficult to assess trends across Japan's three major global health initiatives (Global Issues Initiative on Population and AIDS, 1994–2000; Okinawa Infectious Diseases Initiative, 2000–05; and Health and Development Initiative, 2005–10).

Because of these limitations, we assessed trends in Japanese DAH with available data from the Organisation for Economic Co-operation and Development (OECD) Development Assistance Committee and the Institute for Health Metrics and Evaluation in addition to a newly constructed dataset for this study. Figure 1 shows DAH in 2008 in G7 countries as a percentage of the country's gross national income (GNI) in the same year, ranked from highest to lowest. In this context, Japan contributes the smallest share of DAH as a percentage of GNI (0.013%), whereas the USA contributes the largest share (0.082%), followed by the UK, France, and Canada. Japan has also been the only OECD country to sustain a decline in DAH in recent years while the US Government, civil society, philanthropic foundations, and various European countries, notably France and the UK, have substantially increased their DAH since the MDGs were declared in 2000.

Several factors contribute to Japan's disappointing performance. First, Japan's stagnating economy has inevitably led to reductions in the Japanese Government's DAH contributions, also known as health ODA. Second, Japan's health ODA is set at only 2% of its total ODA, which is substantially lower than the average for OECD countries at 15%. Further to this, Japan's nongovernmental sector only accounts for less than 1% of Japan's total DAH by contrast with the USA where the

non-governmental sector contributes 37·3% of the USA's total DAH. This shows that Japan has not yet effectively mobilised the resources of its private sector in global health, which has hindered Japan's ability to achieve higher levels of DAH.

In terms of channels of assistance, figure 2 shows that Japan channels 40.4% of its DAH through bilateral mechanisms and 59.0% through multilateral mechanisms, with close to half of its DAH going to the Global Fund to Fight AIDS, Tuberculosis and Malaria, the World Bank International Development Association, and WHO. Meanwhile, the USA directs only 9.7% of its DAH through multilateral mechanisms, with the largest share channelled through NGOs and other private organisations. When donor contributions to WHO are disaggregated further as core or voluntary funding, it is clear that most of Japan's contribution is classified as core funding (86.8%)—an inevitable consequence of UN funding rules, which dictate core contributions on the basis of the country's GNI. Unfortunately, donors cannot determine how core funds are used, thus preventing Japan from playing a more prominent part in setting the global health agenda within WHO. By contrast, 64.2% of the UK's funding to WHO is in the form of so-called voluntary contributions, which enables the UK to actively participate in managing funding allocation.

#### Global health priorities

In terms of financial contributions, Japan has been largely directing its DAH toward infectious disease control including HIV/AIDS, tuberculosis, and malaria control (figure 3). It also directs its DAH toward improvements in health policy and administrative management, such as institutional capacity building as well as basic health care and medical services such as primary health-care programmes and improvements in laboratories including equipment and supplies. Meanwhile, Japan allocates a small proportion of its DAH towards health-personnel development (1·9%) and research and development (2·5%).

In terms of regional priorities, Asia has always been the largest beneficiary of Japan's foreign development assistance because of Japan's political and economic relations with other countries in the region. However, the proportion of ODA to Asia declined from 65.7% in 2000 to 20.1% in 2008, as Japan shifted its geographical focus for assistance, partly because of economic growth in Asia. Japan is now enhancing its support to Africa and the Middle East (mainly Afghanistan and Iraq), which shared the largest proportion of Japanese assistance in 2008, 44.5% and 26.2%, respectively. Central to the rationale for this shift in geographical focus has been Japan's commitment to peace-building efforts, the poor progress achieved in improving health outcomes in sub-Saharan Africa,36 and Japan's strongly held belief that there will be "no stability or prosperity in the world unless the problems of Africa are resolved".37 This strong

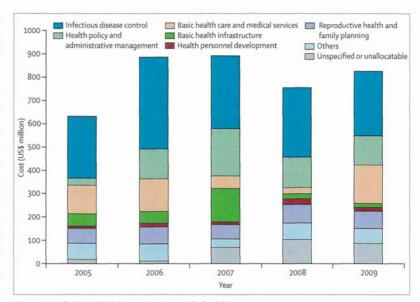


Figure 3: Distribution of development assistance for health in Japan, 2005–09

Data from Ministry of Foreign Affairs; Ministry of Health, Labour and Welfare; Ministry of Finance; and Ministry of Education, Science, and Technology; the Japan International Cooperation Agency; Japan Federation of Economic Organisations; and the MOFA-NGO Regular Meeting Network on the Global Issues Initiative on Population and AIDS and the Okinawa Infectious Diseases Initiative, 2010 (unpublished).

commitment to Africa's development can be traced back to the 1990s when Japan launched the First Tokyo International Conference on African Development at a time when Africa was not at the forefront of the worldwide community's development efforts.<sup>37</sup>

#### Japan's untapped potential

Thus far, this Series in *The Lancet* has showcased the wealth of knowledge and expertise on health that Japan has accumulated over 50 years in its own quest to improve the health and wellbeing of its people. As shown in the first report of this Series, "Japan reduced child mortality rates substantially by scaling up key child-survival interventions and developing an effective link between community-based and facility-based care for maternal, newborn, and child health during the 1960s. Japan also effectively reduced adult mortality rates through public subsidies for treating tuberculosis, provided universal access to basic medical services, and reduced inequities in co-payments across different insurance plans over time.8

These experiences and expertise are highly relevant in an era of scaling up interventions to achieve the health-related MDGs, and Japan's experience and knowledge of health insurance<sup>9,10</sup> and long-term care<sup>8</sup> will also be a huge asset in the post-MDG movement towards long-term care in societies where the proportion of elderly people is increasing. As a citizen of our increasingly interconnected and interdependent world, Japan should be actively sharing these accumulated insights with the international community and using them to strengthen national health around the world in pursuit of progress in global health.

To Japan's credit, the Japanese have in many instances shown substantial leadership in global health initiatives, such as in the eradication of smallpox. As the chief of the WHO Smallpox Eradication Unit between 1977 and 1985, Isao Arita was responsible for overseeing the WHO's efforts to eradicate smallpox—achieved under his leadership in 1980.<sup>38</sup> Similarly, Arata Kochi, a Japanese public health physician, directed the WHO's tuberculosis programmes for 10 years and was instrumental in promoting the worldwide implementation of the Directly Observed Treatment Short course strategy to treat tuberculosis in the 1990s, which the WHO Director-General declared in 1994 as the most important public health breakthrough of the decade.<sup>39</sup>

At the intergovernmental level, the Japanese Government has also successfully raised the issue of global health as a major agenda item in two of the recent G8 summits it hosted in Kyushu-Okinawa and Hokkaido Toyako. De pemploying a participatory process of multiple stakeholders, the Japanese Government was able to effectively facilitate the development of strategic public–private partnerships, most notably the Global Fund. This approach made it possible to reach high-level policy makers and bureaucrats and to put the strengthening of health systems high on the G8 agenda. A2.45

Although these successes in global health have been under-recognised, because Japan has traditionally adopted a low profile, our analyses show that Japan has not yet achieved its full potential to affect global health. Perhaps the most visible sign of Japan's untapped potential is its low financial commitment to global health. Further to this, the absence of a long-term, evidencebased global health strategy is prominent because of a lack of rigorous assessment by health experts. Japan's contribution in terms of human resources to develop global policies is disappointing despite its breadth of expertise in domestic health issues. A recent analysis by the UN,46 for instance, showed that UN staff of Japanese origin are under-represented. Furthermore, only one staff member with an advanced health degree is employed by the Ministry of Foreign Affairs and an estimated 29 by JICA-a clear indication that there is insufficient emphasis placed on the development and recruitment of Japanese global health experts.

#### Re-invigorating Japan's commitment

In view of the fast-approaching MDG deadline and the emergence of increasingly complex post-MDG health-care challenges, global health, now more than ever, should be a priority for Japan. Loudly echoing this sentiment are the Japanese people themselves. In a public opinion survey undertaken in 2010 by the Cabinet Office, 15 greater than 70·0% of the Japanese general public rated health as the most important priority for the government to invest in of all the potential priorities for which development assistance could be provided. This

survey also showed that 58.0% of respondents thought that the government should increase its health ODA despite economic setbacks, whereas only 28.7% thought that it should be reduced. Clearly there is a wide gap between what Japan is currently contributing to global health and what the Japanese public thinks Japan is capable of contributing. Such overwhelming public support represents a viable window of opportunity to enact reform at a time when the world so urgently needs greater global health engagement.

#### Recommendations for reform The opportunity for change

In 2009, the Ministry of Foreign Affairs announced a revised ODA policy direction, which emphasised achieving the MDGs, multistakeholder partnerships, and more effective assistance.<sup>36</sup> Although the proposed reforms by the Ministry of Foreign Affairs represent a step in the right direction, substantial changes to Japan's present global health framework are desperately needed. In the present period of political transition and widespread public backing, Japan has the opportunity to prepare for radical, not incremental, change.<sup>47</sup> We recommend bold actions to start this process of reform.

### Government agencies and a global health committee

The greatest barrier to reform is Japan's antiquated but deeply entrenched institutional mechanism for global health policy making. It is characterised by fragmented relations between the different ministries and agencies tasked with global health initiatives. In the present fragmented framework, the lack of consensus and coordination between the Japanese Diet; the Ministry of Foreign Affairs; the Ministry of Health, Labour and Welfare; the Ministry of Finance; and Japan's bilateral development agency, JICA, greatly slows, if not completely stifles, progress. Against this backdrop, how can Japan transfer its accumulated domestic health knowledge into relevant global health strategies?

We recommend the creation of a global health committee in the highest level of Japan's Government, consisting of policy makers, bureaucrats, academics, and civil society representatives both from within and outside Japan. Such a process was successful in surmounting substantial fragmentation and lack of coordination at the time of the G8 Hokkaido Toyako Summit in 2008. That one-off exercise needs to be renewed and sustained institutionally. Moreover, the implementing agencies, namely JICA, the National Institute of Public Health, the National Institute of Infectious Diseases, and the National Centre for Global Health and Medicine, also need to be consolidated and equipped with stronger technical expertise and capacities.

This restructuring of the interactions of Japanese global health participants would greatly facilitate efforts to tackle one of the country's greatest obstacles: its low spending on global health. The proposed consolidation