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**SPEECH BY MR KHAW BOON WAN, MINISTER FOR HEALTH
AT THE OPENING CEREMONY OF THE 6TH HEALTH TECHNOLOGY
ASSESSMENT INTERNATIONAL ANNUAL MEETING
ON MONDAY, 22 JUNE 2009 AT 8.30 AM
AT SUNTEC CONVENTION CENTRE, THEATRE**

"COSTLIER CARE, BETTER HEALTH?"

Professor Harvey Fineberg, President of the U.S. Institute of Medicine of the National Academies,

Dr Laura Sampietro-Colom, President-elect of Health Technology Assessment International,

Dr Jason Cheah, Chair, Local Organising Committee,

Distinguished guests, ladies and gentlemen,

1 Singapore is honored to host the HTAi Annual Meeting. Let me join the organizing committee to bid a warm welcome to all participants, and especially to our foreign guests and speakers.

Double-Edged Sword

2 When I was born, life expectancy here was about 60 years. More than 20 years have since been added to it. This is a great achievement and there are many

contributing factors: economic growth, better education, clean water, good doctors. In particular, advances in medical science and technology deserve significant credit for this success.

3 However, progress in medical technology is a double-edged sword. It creates new problems and has attracted its fair share of critics. For instance, it has been blamed for escalation in healthcare cost, especially in the US. Since 1980, US health spending has outpaced the rise in all other consumer spending by nearly a factor of three. Every attempt to arrest this climb has failed: wage and price controls in the 70's, "voluntary efforts" by the insurance industry in the 80's, managed care in the 90's. Hopefully, President Obama can be more successful.

Dysfunctional Market

4 The US President's Council of Economic Advisers (CEA) has just published a report, estimating the economic impact of the proposed health care reform. The report noted that while the American health care system has many virtues, "it is also plagued by substantial inefficiencies and market failures". There is a large body of evidence showing that utilization of specific procedures and per capita health care spending vary enormously by geographic region. In many cases, these variations are not associated with any substantial differences in health outcomes. Large variations remain even after adjusting for differences in age, sex, and race across states.

5 These large differences in spending suggest to the President's Council that nearly 30 percent of the US healthcare cost could be saved without adverse health consequences. The report went on to identify the inefficiencies behind the empirical estimates:

- Americans spend a substantial amount on high cost, low-value treatments.
- Patients obtain too little of certain types of care that are effective and of high value.

- Patients frequently do not receive care in the most cost-effective setting.
- There is extensive variation in the quality of care provided to patients.
- There are many preventable medical errors that lead to worse outcomes and higher costs.
- The US system is complex and has high administrative costs.

6 Almost all of these factors pertain to medical technology: its abuse, overuse, or underuse. Practices vary widely, even among hospitals in the same city. Why should this be the case?

7 For many medical conditions, a patient may have a choice of several methods of treatments, each having different benefits or risks. But most patients do not know enough to make a rational choice. They rely on their doctors to help them make the choice. In any case, if the bills are paid by a third party, like the Government or an insurer, the patients have no incentive to choose the most cost-beneficial treatment. They simply assume that costlier care must be better. The situation is compounded when the doctors and the hospitals are reimbursed on a fee-for-service basis, as they will then also not have any incentive to help the patients economise.

Buyers know more?

8 At a fundamental level, the inefficiencies stem from the fact that the health care market is a classic example of a market with asymmetric information, where the seller knows much more than the buyer. Information asymmetry then leads to moral hazard, where insurance coverage or Government subsidy may insulate patients from cost consciousness and promote unnecessary care.

9 Actually, information asymmetry is not unique to the healthcare market. In most commercial transactions, say, buying a car, a digital camera, or a hand phone or investing in a corporate bond, there is also information asymmetry. Very few car buyers are engineers who know the mechanics and power specifications of the car they are buying. They end up choosing their car based on looks, styling, comfort and

are often vulnerable to persuasion by car dealers. To reduce information asymmetry, an entire industry emerges to support the consumers, by employing knowledgeable writers who regularly review and publish their expert opinions on the range of models available in the market, comparing and ranking the competing models based on cost, reliability and value. In the financial sector, we have credit rating bureaus such as Moody's and Standard & Poor's, to help investors navigate the mine field. With the Internet and Wikimedia, consumers have also joined in to publish their opinions and share their personal experience about the products and services they have used. Just google and search, there is no shortage of opinions on the quality and services of restaurants, hotels, tour agencies, or book titles. Not all these opinions are trustworthy or objective assessments, but over time, credible sites emerge which guard zealously their reputation by ensuring that their articles are fair, objective and authoritative. This is how the market responds to this problem of information asymmetry in many economic sectors. It is not fool proof as shown by the limitations of the credit rating agencies which led to the recent financial crisis. But by and large, these independent entities play a useful role in narrowing the information gap between buyers and sellers.

Costlier care, poorer health

10 The healthcare market has been much less developed in this regard. As a result, it has benefited less from market competition. In most fields, technological progress is generally cost-reducing as companies compete to discover more effective ways of accomplishing things that were already being done, and are rewarded for doing so. In medicine, however, technological progress in recent decades has been almost exclusively cost-increasing, without generating a commensurate increase in value.

11 Look at the recently launched iPhone. It has more functions and capabilities than the previous version, and Apple has indicated that they will not raise the retail price. In healthcare, new drugs, new medical devices often come with a higher price tag, displacing existing drugs and devices for very marginal, and sometimes, no improvement in health outcome.

12 In a recent commentary in the Lancet (May 23), Dr Richard Kahn, an American specialist in diabetes expressed his frustration in diabetes care: "despite all the technology available, the quality of diabetes care is still unsatisfactory, which suggests that either the technology is not "right" or is not being used effectively. I believe the answer is both." For drugs, the expenditures for diabetes in the USA increased by 87% from 2001 to 2007, yet improvements in haemoglobin A1c concentrations have been more modest. Of the 9 available drug classes, those introduced in the past 10 years are 8 to 10 times more costly than the drugs available 25 years ago, but the older drugs are arguably still more powerful in reducing HA1c concentrations. Dr Kahn lamented that "Often, the lure of using a new heavily promoted drug supersedes the imperative to effectively and aggressively use the generic mainstays".

13 What was described for diabetes care is also observed in the care of many other medical conditions. Clearly, we need more and better evidence of medical benefit for what we have now, and solid evidence that what is coming will provide greater benefit at lower cost. As Dr Kahn wrote, "such imperatives do not disparage technology nor slight its contribution, they simply hold it to a standard it should achieve." This is what health technology assessment aims to achieve, by asking four fundamental questions:

- Does the intervention work?
- For whom?
- At what cost?
- How does it compare with the alternatives?

14 The focus is on increasing value for patients — the health outcomes achieved per dollar spent. As escalating healthcare cost becomes a bigger political concern, the call for health technology assessment becomes louder. The UK has led the way with its National Institute of Health and Clinical Excellence (or NICE), producing rigorously developed guidance on public health, health technologies and clinical practice. In Singapore, we regularly study the NICE recommendations and draw guidance from them. In the US, the recent economic stimulus package included a budget for comparative effectiveness research on healthcare technologies.

Not re-inventing the wheel

15 Asians welcome such objective, authoritative assessments of health technology. Many do not have as much resources for such research, but this is where the global collaborative approach can benefit us. We can adapt your technology assessments for our local context. And for some Asian countries in a position to do so, they should also contribute to this body of knowledge. I hope that this conference will be a useful forum for mutual learning in developing and enhancing decision-making systems which integrate evidence from HTA, that are sensitive to local factors.

16 In similar vein, the WHO has also initiated a project "The Global Initiative on Health Technologies (GIHT)", to select proposals for innovative technologies relevant to the key health problems of the day. The First Technical Advisory Group (on Innovative Technologies for Resource Scarce Settings) Meeting was held here over the weekend. Their objective is to challenge industries to identify and adapt innovative technologies that can have a significant impact on public health in developing countries. This is a worthwhile initiative as access to health technologies is one of the most distinct differences between rich and poor countries.

17 And there is great demand for such innovations. I have just read a report of the good work by GE Healthcare at its Bangalore R&D centre in India. Its focus is on developing low-cost products for emerging markets. With 1,100 people, it is GE's second biggest healthcare research site in the world. Its recent achievement is an electrocardiogram that weighs only 1.1 kg and costs around US\$800 and requires less than an hour's training to operate. GE has already sold 6,000 such devices. Their next target is to knock off another 200 gm from the machine and to provide a USB port so that data can be transported. The world badly needs such "frugal innovations", cost-reducing medical technology to benefit more patients.

Back to basics

18 At the end of the day, some basics remain. First, medicine remains both a science and an art and we must not unwittingly undermine the sacred doctor-patient

relationship. Given the diversity of patients, there will always be a diversity of treatment modes. Ultimately, it is the attending physician who has to advise the best course of action for a particular patient, bearing in mind the evidence-base. But regulators have a duty to measure and report the achievements of the doctors and the clinics in managing their groups of patients. Do their conditions improve, stabilise or deteriorate over time? If so, why? As Harvard Professor Michael Porter advocated in a recent commentary: "Results data not only will drive providers to improve outcomes and efficiency but also will help patients choose the best provider teams for their medical circumstances." This is however a complex exercise as outcomes are not easily defined and measured. To be useful and objective, they must be measured over the full cycle of care for a medical condition, not separately for each intervention. They are inherently multi-dimensional, including not only survival but also the degree of health or recovery achieved, the time needed for recovery, the sustainability of recovery. They must also be adjusted for patients' initial conditions to eliminate bias against patients with complex cases. Clearly, much work needs to be done in this area of analysis and research.

19 In Singapore, we are promoting systematic management of the common chronic diseases. Three years ago, we allowed Medisave, a national health savings account, to be used for disease management at outpatient level for diabetes, hypertension, lipid disorders and stroke. The purpose is to encourage patients with chronic conditions to work closely with their doctors to better manage their diseases to avoid, delay or reduce complications which could lead to costly hospitalisations. At the same time, doctors are encouraged to follow the evidence-based disease management protocols. We have now collected two full years of useful data. We are publishing the initial findings for general information.

20 Second, the best way to control healthcare cost is for us to all live healthily: stop smoking, eat less and exercise more. This is within our control and highly affordable: walking 3 km a day costs nothing, eating less and stop-smoking actually save us money. Indeed, the only way to truly contain costs in health care is prevention: it is cheaper to keep people healthy than to treat them when they are sick.

21 But consumers must become much more involved in their health and health care. Unless patients comply with care and take responsibility for their health, even the best doctor or team will fail. We need innovations in designing health insurance, employer medical benefits and reimbursement plans that reward healthy behavior. In the US, Safeway has reported success in reining in its healthcare cost through well-designed healthcare plans, recognizing that 70% of all healthcare costs are the direct result of human behavior. They built their plans on the insight that 74% of all healthcare costs are confined to 4 chronic conditions: heart disease, cancer, diabetes and obesity, with significant scope for prevention. 80% of heart disease and diabetes are preventable, 60% of cancers are preventable and 100% of obesity is preventable. Their employee health plans have distinct differences in premiums that reflect each employee's behavior. They focus on tobacco usage, healthy weight, blood pressure and cholesterol levels. We need more such innovations and success stories to ensure that we can maintain and afford a high standard of healthcare which our people deserve.

22 On this note, I wish you a successful conference.
