Ministry of Health, Welfare and Sport

*Report*

# The benefits of responsible use of medicines

Setting policies for better and cost-effective healthcare

*Ministers Summit, 3 October 2012, Amsterdam, The Netherlands*

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*"Responsible use of medicines will yield benefits to individuals, to society and to our healthcare budgets. These should be aims for countries attending this Summit and for the global community as a whole. For example, better use of antibiotics has been made possible in the Netherlands through comprehensive policy action."*
**Edith Schippers**, Minister of Health, Welfare and Sport, The Netherlands

*"Better use of medicines is imperative. It requires sustained leadership, political will and commitment, as well as alignment of all stakeholders within a whole systems approach."*
**Carissa Etienne**, Assistant Director-General for Health Systems and Services, World Health Organization, Switzerland

"*The IMS Institute identified an opportunity to avoid almost 500 Billion USD in annual global health spending by using medicines more responsibly worldwide. Over half of this cost can be avoided by improving adherence."*
**Murray Aitken**, IMS Institute for Healthcare Informatics, USA

*"The evidence shows that doing nothing is not an option. There is a timely opportunity to use available data and apply current knowledge to better use existing medicines."*
**Bert Leufkens**, Utrecht University / Utrecht WHO Collaborating Centre for Pharmacoepidemiology and Pharmaceutical Policy Analysis & Medicines Evaluation Board, The Netherlands

*"There is a central opportunity to make better use of the full capacity of all resources to improve the responsible use of medicines, particularly the underutilised skills of the pharmacist and the expertise of the behavioural scientists."*
**Harvey Fineberg**, President, Institute of Medicine, USA

"*The challenge is to consider alignment from a policy perspective, to understand patient behaviour and to fundamentally rethink remunerations and incentives and thus enact a change agenda to make the best use of available resources*."
**Sir Andrew Witty**, GlaxoSmithKline and European Federation of Pharmaceutical Industries and Associates (EFPIA), United Kingdom / Belgium

*"Pharmacists, if used to their full potential, can provide valuable solutions to support patients in adhering to their medicines."*
**Michel Buchmann**, International Pharmaceutical Federation, Switzerland

*"Patients organisations can often be a very valuable interface in empowering and supporting patients to meet with governments and health stakeholders to make sure that patients are engaged at all levels of care."*
**Durhane Wong-Rieger**, Institute for Optimizing Health Outcomes/ International Alliance of Patients Organizations, Canada

*"In considering trust between patients and their environment, communication is important. If there is only critique and bad press about medicines and medication errors, patients will lose trust in medicines and in doctors and pharmacists."*
**Otmar Kloiber**, World Medical Association, France

*"It is very timely that we are now engaging in this global effort to renew commitment to the responsible use of medicines. Many experiences have been shared to enable progress, with a focus on alignment of stakeholders, adherence and antimicrobial resistance. This is the beginning of a process that will continue through stimulating follow-on activities and discussions."*
**David Byrne**, former EU commissioner for Health and Consumer Protection

## Background

The Minister of Health, Welfare and Sport of the Netherlands, Mrs Edith Schippers, hosted a Ministers Summit on the theme of "The Benefits of the Responsible Use of Medicines - setting policies for better, cost-effective healthcare" [1] with the aim:

- to explore and identify solutions to improve outcomes for patients in the use of medicines and
- to support sustainable and cost-effective healthcare around the world.

Responsible use of medicines implies that health-system stakeholder activities and capabilities are aligned to ensure that patients receive the right medicines at the right time, use them appropriately, and benefit from them. Bringing the right medicines to patients who need them requires the engagement of all actors, including governments, and a vision on how to integrate public and private interests and mobilise resources.

The focus of this Summit was on three of the five areas indicated in Figure 1 [2]. While there are major challenges in equitable medicines access, there are opportunities for improving health outcomes and systems efficiency by improving the use of the medicines that are available.

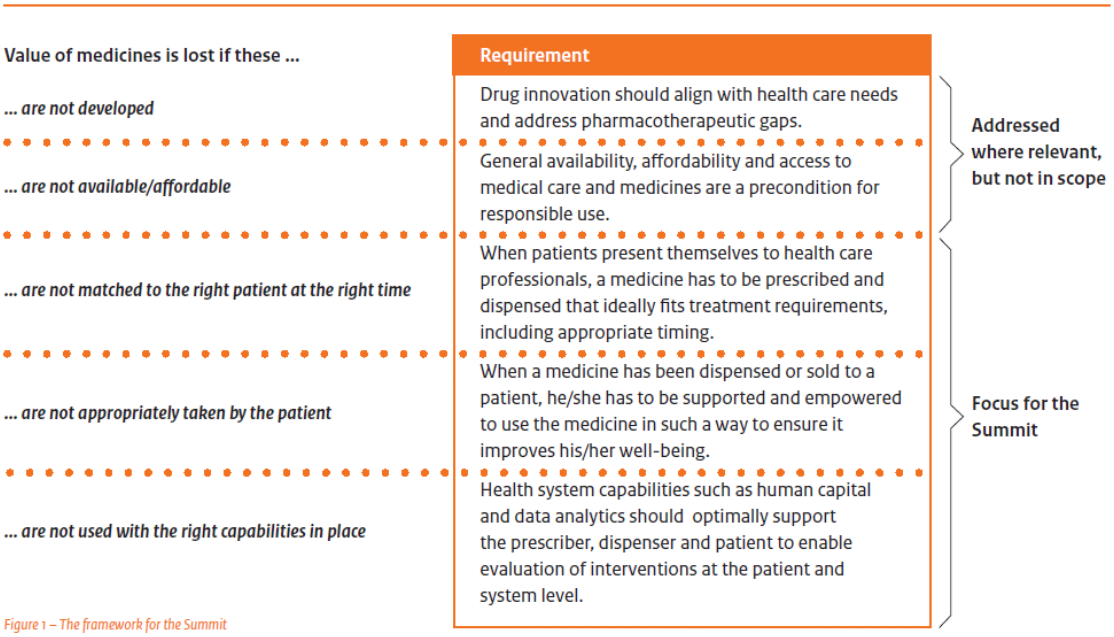

Figure 1 – The framework for the Summit

The Summit enabled participants to define **key opportunities** where governments could maximise health benefits and optimise spending of health budgets, for example via:

a. matching medicines to the right patient at the right time – optimising antibiotic use, preventing medication errors, using generic medicines and managing polypharmacy;
b. increasing adherence, especially in chronic care, and reducing medicines abuse;
c. supporting systems-based capabilities – harnessing the power of information and health informatics, and ensuring robust national medicines policies.

This Summit was held in Amsterdam, the Netherlands on 3 October 2012 and organised on the occasion of the Centennial Congress of the International Pharmaceutical Federation (FIP), the global federation representing pharmacists and pharmaceutical scientists.

Low-, middle- and high-income countries from all six World Health Organization (WHO) regions participated in the Summit: Australia, Colombia, France, India, Iran, Ireland, Morocco, The Netherlands, Oman, El Salvador, South Africa, Tanzania, and the United States of America. In addition, a number of representatives from the WHO and other stakeholders participated in the discussions. See the participants list in Annex I.

As a starting point for discussion, two technical reports [3,4] prepared for the Summit were presented by the WHO and by the IMS Institute for Healthcare Informatics. See Annex II for key recommendations from these reports. In addition a Briefing Paper [2] was prepared by the Utrecht WHO Collaborating Centre for Pharmacoepidemiology and Pharmaceutical Policy Analysis in collaboration with the Ministry of Health of The Netherlands.

Prior to the Summit, a series of high-level stakeholder roundtables were hosted by FIP, with the conclusions and recommendations [5] being presented to Summit participants.

## Key outcomes

Participants acknowledged the value of the WHO [3] and the IMS Institute [4] technical reports and the recommendations from the FIP high-level stakeholder roundtables [5]. All recognised the diversity of country circumstances and discussed current challenges and examples of policies and practice. Above all, participants expressed an openness, willingness and urgent need to improve responsible use of medicines.

The recommendations from the reports were summarised into **four** principles in the Briefing Paper [2] and are presented below. These principles helped to frame the discussions and were generally supported. Given its importance, the learning on antimicrobial resistance is included separately below.

### 1. Coordinate and incentivise better alignment between healthcare professionals to foster continuity of care and better management of medicines.

Partnership approaches aim to involve all stakeholders in developing and implementing medicines strategies towards making optimal use of the capabilities of healthcare professionals and other stakeholders. There was agreement that medicines policies should align the roles of healthcare professionals through supporting collaboration and creating incentives for healthcare professionals.

**Promote collaboration between healthcare professionals**
The roles, responsibilities, and competencies should be defined for all stakeholders. It was noted that in limited resource settings, shifting roles and responsibilities and increasing competency-based training are utilised to address healthcare professional shortages. Several models of cooperation and collaboration between healthcare professionals were shared, for example:

- collaborative management of chronically ill patients by pharmacists and nurses in France to decrease the burden on physicians;
- support from pharmacists to improve physicians' prescribing in Switzerland;
- advocacy by the World Health Professions Alliance for local multi-professional training.

**Create incentives**
Reorganising financing, remuneration and incentives presents a significant opportunity for healthcare systems, as highlighted in the discussion. Healthcare systems often do not incentivise collaborative practice; for some professionals, such as pharmacists, financial incentives are almost solely linked to providing products and not to patient care services. Innovation in this area is necessary to change behaviours and allocate funds to reinforce effective interventions. The Pharmacy Practice Incentive programme in Australia is such an example. Pharmacists participating in the programme are being rewarded for delivering quality services, information and advice to improve health outcomes, avoid medication errors, misuse and associated hospitalisations.

### 2. Ensure patient needs determine policies to manage key usage issues, such as non-adherence, the single largest cause of suboptimal use of medicines.

The patient should be a real partner, particularly when it comes to tackling the critical issue of adherence. Non-adherence provides the single biggest opportunity for addressing responsible use of medicines. As the chronic disease burden grows worldwide, non-adherence will challenge all countries, highlighting the need for global sharing and insight on successful strategies and interventions to improve adherence. Discussions during the Summit focused on the provision of adequate support, education and timely reminders.

**Provide patient education**
The community pharmacy is often the first point of contact between patients and the healthcare system, providing education and pharmaceutical care [6] to support patients to understand and use medicines responsibly.
Patients' motivations and trust in doctors, pharmacists and other professionals, in their medicines and in the healthcare system as a whole should be explored in detail. Additionally public education tools as methods to improve adherence are of value. TV and public media can be beneficial and are used in India

and Iran to educate the public on issues such as adherence. Providing information in local languages is also an effective means to build understanding of medicines use across diverse populations.

**Utilise tools to support adherence**
A significant challenge is in chronic diseases, such as diabetes, where it is necessary for patients to continue to take their medicines over prolonged periods, often without experiencing any symptoms of the disease. Experience was shared of the pharmacists' role in providing practical solutions to monitor and support adherence, including using dose administration aids and staged supplies of medicines.
Electronic reminders and using cell phone technology are mechanisms that have been used to provide on-going reminders to patients at high risk of non-adherence. Further sharing is needed of methods used, experiences and outcomes attained. This can be of value in resource-limited settings. For example to learn more about the use of cell phone technology that enables direct contact at low cost.

## 3. Show commitment to successful initiatives in innovation and learning.

Pharmaceutical innovation goes beyond developing new medicines, it encompasses learning in and from practice. For a true learning environment, policy makers should be committed to:

- obtaining success at the national level;
- flexibility in rules and regulations;
- an attitude that enhances reporting of 'errors'.

A healthcare system should be made adaptable to changing circumstances, to incorporate and continue to support evidence-based and successful initiatives. Cross-cutting learning – between countries, between health systems, between diseases or between therapies – is described in both reports. The variability between countries, and health care settings, provides a special opportunity for learning. Examples presented during the Summit focused on the opportunities from building patient-centered partnerships and using technology.

**Partner with patients**
A focus on patient centred care and partnership with patients resonated throughout the Summit discussions. Patients in Africa for example, are being supported to form patient groups and to partner with governments to share their voice in the development of patient-centred policies and interventions. Patients, when empowered, can support other patients to engage in their care in innovative ways. For example, the use of community volunteers as partners in improving awareness and provision of care helped the government to achieve widespread immunisation against polio in India [3/p.56].

**Resource allocation and innovation**
Oman raised concern about the increasing demand for newer and more expensive medicines that can severely affect health budgets. Australia shared the same concern, however, stated that its Pharmaceutical Benefits Scheme (PBS) is widely acknowledged and accepted by the public to ensure that medicines subsidies decisions are based on sound, independent evidence. Support from the public is of key importance to effectively allocate resources with such a system.

## 4. Support evidence-driven policymaking by investing in healthcare data to plan and evaluate effective intervention policies.

Several countries are considering how to obtain the best available information for decision-making. During the Summit examples of how to assess this information were shared. Reliable healthcare data can assist in responding to real-world information needs about medicines, in prioritising interventions, and in supporting behaviour change among healthcare stakeholders and patients.

**Leverage information technology**
Greater sharing of best practices is needed in:

- building patient registries;
- linking electronic health records;

- enabling health data capture and analysis;
- using innovative ways to inform patient care and health decisions.

Through sustained long-term public-private partnerships the right infrastructure can be built to, for example, reduce medication errors and improve compliance, as well as provide better data on medicines use and the effect of policy interventions. The recent roll out of e-health technology in Australia allows physicians to review two years of patient prescription records to inform patient care and practice. In limited resource settings, the power of mobile technology is bringing timely and useful information to local healthcare professionals, patients and policy makers.

## Follow-up Initiatives

Through this Ministers Summit, the Ministry of Health, Welfare and Sport of the Netherlands has taken action to bring to light new evidence, insight into the challenges faced and, most importantly, opportunities available to promote the responsible use of medicines.

The challenges discussed may not be new, however, new evidence presented at the Summit indicates that the status quo is no longer an option given the almost 500 billion USD annual avoidable cost to healthcare due to the lack of responsible use of medicines. Furthermore, the continuing uncontrolled use of antibiotics and persistent rise in antimicrobial resistance, require renewed political commitment, research and concerted global action on antimicrobial resistance.

This timely event enabled representatives from Ministries of Health, healthcare professional organisations, industry, academia, civil society and patient organisations to express their common concern but also their willingness to act. There are opportunities in all healthcare settings. To make responsible use of medicines a reality, learning is a key element, learning that is based on data, on best practices and on experiences from others.

The dialogue sparked during this meeting will continue to stimulate thinking and policy actions through various forms, including through dissemination of:

- the Summit Report and translations by the Ministry of Health, Welfare and Sport [10];
- additional input received from Ministries of Health after the Summit [11];
- the WHO report and recommendations [3];
- the IMS report, recommendations and online sharing platform [4];
- the FIP stakeholders' roundtables report and recommendations [5];
- the European Directorate of the Quality of Medicines & Healthcare report [6].

As well as, a follow-up high-level forum for healthcare policy makers and stakeholders, organised and co-hosted by the Department of Health of Ireland, the Pharmaceutical Society of Ireland and FIP, on 29-30 August 2013.

The time to take action is **now**. The cost to people's lives and to healthcare systems resulting from sub-optimal medicines use cannot be afforded. Sustained government commitment and leadership is key to foster engagement of all stakeholders, to draw common goals towards improving the responsible use of medicines and, ultimately, better patient health.

## Global action against antimicrobial resistance – need for commitment and concerted action

There is long history of addressing problems of antimicrobial resistance. Although various government and industry initiatives [7,8] are underway to develop new antibiotics and build a comprehensive therapeutic arsenal, more needs to be done. During the Summit the importance for every country to better manage the use of antibiotics was stressed. Examples of strategies and interventions to engage and educate various stakeholders are stated below.

**Government**
Comprehensive information systems on the use of antibiotics and the levels of bacterial resistance are required. This information is needed for further action within a country and for coordination with other countries.

**Healthcare professionals**
Training and information is provided to prescribers in many countries. In India, for example, a taskforce promotes supervision, prescription audit and feedback to institutions to inform practice and encourage better management of antibiotics. Strategies to tackle antimicrobial resistance in fourteen European countries also highlight the importance of involving the pharmacist, as the pharmacy is often a first point of contact with the healthcare system.

**Patients and the public**
Patient information campaigns in France led to a significant reduction in antibiotic use. However, communication needs to be sustained over the long-term to maintain the decrease in antibiotic consumption [4/p.100]. In Australia, data on hygiene and resistance are publicly available through www.myhospitals.gov.au. Transparency measures, such as this public awareness campaign, have driven important hospital practice improvements.

**Private sector actors**
Distribution of antibiotics is mostly via the private sector. Experiences in implementing effective policies and interventions in this sector should be widely shared. Apart from new medicines, innovations in rapid diagnostic testing offered solutions in Tanzania and South Africa to diagnose tuberculosis and malaria, reducing healthcare spending on expensive last-line treatments.

**World Health Organization (WHO)**
WHO facilitation and support of antimicrobial resistance activities is critical. WHO provides global strategic coordination, supports global surveillance and sharing of evidence-based interventions, advocates for action, and shapes collaborative networks [9].

**NGOs and global networks**
Non-governmental organisations (NGOs) that focus on antibiotic use, such as ReAct http://www.reactgroup.org - an independent global network for concerted action on antibiotic resistance - can play an important role in global advocacy and bringing partners together towards preventing antimicrobial resistance.

**Non-health actors**
Policies need to reach beyond the health sector, as evidenced by vast antibiotic usage in agriculture. For example, the EU and Australia have ensured that antibiotics are banned for growth promotion of livestock. India has also adopted a new policy on prudent antibiotic use in animals. In The Netherlands, the use of antibiotics in livestock is monitored.

Participants to the Summit agreed that increased commitment and cooperation towards global policy and concerted action are necessary to tackle this global threat to the health of all.

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11. from: http://www.government.nl/ministries/vws
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# Annex I

**Ministers Summit Participants' and Speakers List**

| Name | Organisation | Country |
|---|---|---|
| Plibersek, Tanya | Minister for Health | Australia |
| Halton, Jane | Department of Health and Ageing | Australia |
| Kear, Trent | Department of Health and Ageing | Australia |
| Craig, Anne | Embassy of Australia in The Netherlands | Australia |
| Chan, Xuanhao | Clinton Health Access Initiative | Cambodia |
| Meek, Warren | C7 Consulting Limited | Canada |
| Wong-Rieger, Durhane | Institute for Optimizing Health Outcomes / International Alliance of Patients' Organizations | Canada |
| Gonsales, Ricardo | Embassy of Colombia in The Netherlands | Colombia |
| Pacheco Aldana, Elba Lucia | Embassy of Colombia in The Netherlands | Colombia |
| Desta, Abayneh Tamer | World Health Organization, Regional Office for Africa | Congo |
| Kristensen, Niels | Association of Danish Pharmacies | Denmark |
| Sautenkova, Nina | WHO Regional Office for Europe | Denmark |
| Menéndez, Rosibel | Mission of El Salvador in Geneva | El Salvador |
| Gal, Diane | FIP - International Pharmaceutical Federation | France |
| Houdry, Vincent | Permanent Representation of France at the EU | France |
| Keitel, Susanne | EDQM - Council of Europe | France |
| Kloiber, Otmar | World Medical Association | France |
| Azad, Ghulam Nabi | Minister of Health and Family Welfare | India |
| Chauhan, Sharat | Ministry of Health and Family Welfare | India |
| Holloway, Kathleen Anne | World Health Organisation, SE Asia Regional Office | India |
| Mehta, Vishwas | Ministry of Health and Family Welfare | India |
| Mukherjee, Bhaswati | Ambassador of India to The Netherlands | India |
| Prasad, Sanjay | Ministry of Health and Family Welfare | India |
| Sharma, Satish | Embassy of India in The Netherlands | India |
| Singh, Raj Kumar | Embassy of India in The Netherlands | India |
| Shirazi, Farshad | Association of Pharmaceutical Scientists | Iran |
| Brennan, Christine | Department of Health | Ireland |
| Byrne, David | Former EU Commissioner for Health and Consumer Protection | Ireland |
| Kinsella, Marita | Department of Health | Ireland |
| Nogimori, Masafumi | IFPMA | Japan |
| Bouazza, Omar | Ministry of Health | Morocco |
| Skah, Ali | Ministry of Health | Morocco |
| Schippers, Edith | Minister of Health, Welfare and Sport | Netherlands |
| Aalders, Regine | Ministry of Health, Welfare and Sport | Netherlands |
| Barnard, Herbert | Ministry of Health, Welfare and Sport | Netherlands |
| Besançon, Luc | FIP - International Pharmaceutical Federation | Netherlands |
| Bootsma, Peter | Ministry of Health, Welfare and Sport | Netherlands |
| Breimer, Douwe | Leiden University | Netherlands |
| Crommelin, Daan | Utrecht University | Netherlands |
| Hansen, Josée | Dutch Healthcare Inspectorate | Netherlands |
| Hartgerink, Jan Willem | Ministry of Health, Welfare and Sport | Netherlands |
| Heil, Ole | Ministry of Health, Welfare and Sport | Netherlands |

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|---|---|---|
| Hoek-Scholten, Wijnandien | VRA - Netherlands Society of Physical and Rehabilitation Medicine | Netherlands |
| Hurts, Hugo | Ministry of Health, Welfare and Sport | Netherlands |
| Joachimsthal, Marcel | GlaxoSmithKline BV | Netherlands |
| Kooimans, Stephanie | Ministry of Health, Welfare and Sport | Netherlands |
| Lesko, Myriah | FIP - International Pharmaceutical Federation | Netherlands |
| Leufkens, Bert | Utrecht University / WHO Collaborating Centre | Netherlands |
| Mantel-Teeuwisse, Aukje | Utrecht University / WHO Collaborating Centre | Netherlands |
| Raaijmakers, Jan | GlaxoSmithKline BV | Netherlands |
| Reed, Tim | Health Action International | Netherlands |
| Schakel-Taverne, Els | Ministry of Health, Welfare and Sport | Netherlands |
| Seeverens, Harrie | Ministry of Health, Welfare and Sport | Netherlands |
| Smits, Jan | KNMP - Koninklijke Nederlandse Maatschappij ter Bevordering der Pharmacie | Netherlands |
| Stolk, Pieter | Ministry of Health, Welfare and Sport | Netherlands |
| Swakhoven, Mireille | FIP - International Pharmaceutical Federation | Netherlands |
| Van den Berg, Seriana | Ministry of Foreign Affairs | Netherlands |
| Van den Bogert, Sander | World Health Organization | Netherlands |
| Van der Hoeff, Carola | FIP - International Pharmaceutical Federation | Netherlands |
| Van der Spek, Oliver | FIP - International Pharmaceutical Federation | Netherlands |
| Mohamed bin Saif Al-Hosni | Undersecretary for Health Affairs | Oman |
| Al Khabouri, Mazin | Ministry of Health | Oman |
| Al-Kharusi, Hamood | Ministry of Health | Oman |
| Suleiman, Batool | Ministry of Health | Oman |
| Tisocki, Klara | WHO Western Pacific Regional Office | Philippines |
| Malegwale Ramokgopa, Gwen | Deputy Minister of Health | South Africa |
| Hela, Mandisa | Department of Health | South Africa |
| Raphuti, Debbie D. | Department of Health | South Africa |
| Cars, Otto | Uppsala University / ReAct | Sweden |
| Buchmann, Michel | FIP - International Pharmaceutical Federation | Switzerland |
| de Joncheere, Kees | World Health Organization | Switzerland |
| Driece, Roland | Permanent Mission of Netherlands to the UN | Switzerland |
| Etienne, Carissa | Assistant Director-General, World Health Organization | Switzerland |
| Ondari, Clive | World Health Organization | Switzerland |
| Weerasuriya, Krisantha | World Health Organisation | Switzerland |
| Mwinyi, Hussein Ali | Minister of Health and Social Welfare | Tanzania |
| Khea, Akida | Tanzania Food and Drugs Authority | Tanzania |
| Majid, Amri | Ministry of Health and Social Welfare | Tanzania |
| Barra, Ornella | Alliance Boots | United Kingdom |
| Gorokhovich, Lyudmila | IMS Institute for Healthcare Informatics | United Kingdom |
| Kennerley, Tricia | Alliance Boots | United Kingdom |
| Pessina, Stefano | Alliance Boots | United Kingdom |
| Strutt, Christopher | GlaxoSmithKline | United Kingdom |
| Witty, Sir Andrew | Summit Panel Speaker/ GlaxoSmithKline | United Kingdom |
| Aitken, Murray | IMS Institute for Healthcare Informatics | United States |
| Andrews, Emma | Pfizer Inc. | United States |
| Castro, José Luis | Pan American Health Organization | United States |
| Clarke, Elana | Department of Health and Human Services | United States |
| Fineberg, Harvey | Summit Panel Speaker/ Institute of Medicine | United States |
| Fitzgerald, James | Pan American Health Organization | United States |
| Gertler, Nicholas | Tapestry Networks | United States |

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|---|---|---|
| Giberson, Scott | Department of Health and Human Services | United States |
| Rex, John H. | AstraZeneca | United States |
| Watters, Jack | Pfizer Inc | United States |
| Wilson, Mary | Harvard School of Public Health | United States |
| Wuliji, Tana | Summit Rapporteur / University Research Co., LLC | United States |

## Annex II

**Technical report key recommendations [2,3]**

**WHO Report [3] Strategic recommendations** to create the policy framework for responsible use of medicines**:**

1. Develop and mandate a national essential medicines list to inform reimbursement decisions and ensure access to essential medicines.
2. Invest to ensure national medicines procurement and supply systems are efficient and reliable.
3. Promote a shift in focus to early screening and accurate diagnosis to guide/inform medicines prescription and avoid overuse, underuse and misuse of medicines.
4. Facilitate the implementation of evidence-based treatment guidelines; remove regulatory or administrative barriers and directly target all key stakeholders: prescribers, dispensers and patients.
5. Promote initiatives that put patients at the centre of treatment in order to maximise adherence to therapy.
6. Monitor medicine use, from purchase to health outcome, to evaluate real-world efficacy of treatment and guide evidence-based policy making.
7. Ensure sustained, top-down commitment of national authorities and promote active, bottom-up engagement of prescribers, patients and dispensers to responsible use of medicines principles and policies.

**IMS Report [4] Top five recommendations** with high health outcome, rapid time-to-impact and low spend**:**

1. Support greater role of pharmacists to own medicines management for patients and collaborate with physicians for revision.
2. Invest in medical audits targeting elderly patients as more likely to be taking multiple medicines.
3. Implement mandatory reporting of antibiotic use by provider.
4. Encourage positive attitude and culture towards error reporting by reducing punitive measures against providers who commit errors.
5. Support targeted disease management programmes for prevalent NCDs such as diabetes to ensure timely therapy initiation: focus on patients at highest risk.