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# REPORT ON THE PREPARATIONS FOR THE ROUNDTABLE ON ANTIMICROBIAL RESISTANCE

#### **Containing Antimicrobial Resistance**

#### Introduction

### The problem: antimicrobial resistance hinders the control of infectious diseases

- 1. The Region of the Americas is currently facing a crisis created by the growing resistance of microorganisms to antimicrobial drugs. At one time, it was thought that antimicrobials would keep communicable diseases under control, eliminating them as a public health concern. However, their effectiveness has been steadily waning in recent years, as strains of bacteria emerge that are resistant to multiple drugs and, in some cases, have become nearly "pan-resistant". Antimicrobial resistance can jeopardize the achievement of MDGs 4, 15, 2 and 6.3 Nosocomial infections caused by resistant strains were once confined to hospitals, but new community-acquired infections pose an ominous threat. The selective pressure that triggers bacterial mutations is complex, but the responsibility can be shared by healthcare workers, hospitals, long-term care facilities, the agriculture industry, and even healthcare consumers themselves.
- 2. Antimicrobial resistance is also imposing an immense burden on health costs, doubling the length of stay, and more than doubling the costs per hospital admission. The economic, social, and emotional costs for the patients are large but unmeasured. Hospitals are incurring expensive risk-reduction efforts to limit the spread of the resistant pathogens.

<sup>3</sup> MDG 6: Combat HIV/AIDS, Malaria and other diseases.

<sup>&</sup>lt;sup>1</sup> MDG 4: Reducing under-five mortality by two-thirds.

<sup>&</sup>lt;sup>2</sup> MDG 5: Improve Maternal Health.

# Antimicrobial resistance and the consequences for public health in the Americas: higher mortality; higher morbidity, and higher health expenditure<sup>4</sup>

- 3. In Guatemala, for example, the excess cost of treating a single case of ventilator-associated pneumonia in adults was US\$ 1,500, and for neonatal pneumonia, \$1,200. During the study year, the hospital where the study was conducted had 60 cases of ventilator-associated pneumonia among adult patients, which raised the cost of patient care due to a single nosocomial infection by \$90,000 in a single year<sup>5</sup>. The following topics will be expanded in the background paper for the debate that will be added for discussion during the Directing Council.
- (a) Extent and trends in antimicrobial resistance in the Americas. Data from the "Latin American Antimicrobial Resistance Network" for 2000-2009 showed an increase in the resistance of both community and nosocomial pathogens, such as methicillin-resistant *Staphylococcus aureus* (MRSA), Streptococcus pneumoniae, Escherichia coli, Haemophilus influenzae, Acinetobacter, Enterobacter, Shigella, and Pseudomonas aeruginosa.
- (b) Factors related to the development of antimicrobial resistance:
- quality of drugs;
- improper use of antibiotics by prescribers, dispensers, and consumers/community;
- misuse of antibiotics in agriculture and other areas of the food industry, such as aquaculture.
- (c) Association with poverty. In low-resource settings, factors such as inadequate access to effective drugs, the unregulated dispensing and manufacture of antimicrobials, and truncated antimicrobial therapy due to cost considerations are contributing to the surge in multidrug resistant organisms. In the Americas, poverty-driven practices such as self-medication (e.g. medication-sharing, the use of "leftover" antibiotics), and the purchase of drugs of questionable quality are likely contributing to antimicrobial resistance.
- 4. PAHO, in support to the countries to address the problem of antimicrobial resistance has adopted a multifaceted approach: (a) surveillance of resistance; (b) hospital infection surveillance and control; (c) strengthening of country capacity to contain

<sup>5</sup> Idem.

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<sup>&</sup>lt;sup>4</sup> Pan American Health Organization. Costo de la infección nosocomial en nueve países de América Latina (Cost of nosocomial infections in nine countries in Latin America). Salvatierra-González, MR, editor [Internet]. Washington (DC), US: PAHO; 2003 (Document OPS/DPC/CD/271/03) (In Spanish) [cited 2011 April 1]. Available from:

http://www.paho.org/Spanish/AD/DPC/CD/eer-amr-costo-infecc-hospital.pdf.

antimicrobial resistance in the health care setting and control healthcare- associated infections; and (d) promotion of the rational use of medicines, including antimicrobials.

5. This Roundtable is a response to the need to facilitate and promote a broad, indepth discussion with the health authorities of the Member States on the socioeconomic impact, lessons learned, and successful strategies for meeting the goal of containing antimicrobial resistance, which will allow for more cost-effective control of communicable diseases and decrease the infectious risks associated with health care.

#### Background

- 6. The 41st Directing Council adopted Resolution CD41.R14 (1999) on *Emerging and Reemerging Infectious Diseases and Antimicrobial Resistance*, which resolves in paragraph 1: "To urge the Member States to review the policies and legal mechanisms governing the rational use of antimicrobials, with a view to introducing changes aimed at controlling the growth of resistance to these drugs."
- 7. The World Health Assembly, in resolution, WHA.58.27 (2005), requested the Director-General to expand and strengthen the provision of technical support to Member States in order to accelerate the implementation of resolutions WHA51.17 (1998), and WHA54.14 (2001) concerning the containment of antimicrobial resistance. It also noted that the strategy for the containment of antimicrobial resistance had not been widely implemented and reemphasized the need for a comprehensive, integrated national approach to promoting the containment of that resistance.
- 8. This year's World Health Day is devoted to antimicrobial resistance to offer a valuable conduit for ensuring that measures that can reduce and prevent the spread of often lethal drug-resistant forms of disease are established and enforced.

#### **Objectives**

- To analyze and assess the socioeconomic impact of antimicrobial resistance and healthcare-associated infections on health and identify strategies and sources of financing to reduce risks in hospitals and communities.
- To share lessons learned in the surveillance and containment of antimicrobial resistance in the Member States.
- To strengthen coordination and cooperation among the health sector, technical, and financial partners, nongovernmental organizations, professional associations, civil society, and other sectors to tackle antimicrobial resistance.

## **Roundtable Structure**

Containing Antimicrobial Resistance	
<b>Keynote Address:</b> Antimicrobial Resistance: Implications for Global Health Speaker (to be determined) (20 minutes)	
	<b>Discussion Panels</b> : (90 minutes)
Discussion Group 1	
Subject:	The Health, Social, and Economic Impact of Antimicrobial Resistance
Moderator:	President, Directing Council
Presentation of the Discussion Item	TBD*
Discussion Guide:	<ul> <li>Burden of healthcare-associated infections.</li> <li>Cost-effectiveness analysis.</li> <li>Indirect consequences of AMR in health care (treatment of oncology patients, use of second-line antibiotics).</li> </ul>
Discussion Group 2	
Subject:	The extent of antimicrobial resistance in the Region and its trends: Data for action
Moderator:	Vice President, Directing Council
Presentation of the Discussion Item	TBD*
Discussion Guide:	<ul> <li>Challenges for antimicrobial resistance surveillance.</li> <li>Reliability of the data: quality of microbiology laboratories.</li> <li>Data sharing: from local to global scenarios.</li> <li>Use of data for policy—and decision-making.</li> <li>Preventing healthcare-associated infections.</li> </ul>
Discussion Group 3	
Subject:	Towards a multifaceted approach to contain antimicrobial resistance
Moderator:	Vice President, Directing Council
Presentation of the Discussion Item	TBD*
Discussion Guide:	Analysis of the different stakeholders: a richer discussion

<sup>\*</sup> To be determined.

environment.

- Integrating surveillance and defining common actions with other sectors.
- Role of consumers and civil society in antimicrobial use.
- Availability and quality of drugs: the first step in addressing antimicrobial resistance containment.
- National strategies for the rational use of medicines.
- Improving prescribing practices.

#### **Reports**

**Rapporteur Reports:** The three rapporteurs from the three *discussion groups* meet and prepare a joint report.

Presentation of the Report in the plenary session (10 minutes) Dr. Marcos Antonio Espinal, Manager, Health Surveillance, Disease Prevention and Control Area, presents the report to the plenary session of the Directing Council.

#### **Participants and Guests**

- Official Member State delegates to the Directing Council.
- Organization of American States (OAS).
- Inter-American Development Bank (IDB).
- Pan American Development Foundation (PADF).
- Inter-American Institute for Cooperation on Agriculture (IICA).
- Economic Commission for Latin America and the Caribbean (ECLAC).
- World Bank.
- Centers for Disease Control and Prevention (CDC).
- Institute of Medicine.
- Cooperation agencies: Canadian International Development Agency (CIDA); U.K.
  Department for International Development (DFID); Swedish International
  Development Cooperation Agency (SIDA); Spanish International Development
  Cooperation Agency (AECID); European Commission Humanitarian Aid Office
  (ECHO), among others.
- Partners and allies: Alliance for the Prudent Use of Antibiotics (APUA); Center for Global Development; Instituto Carlos G. Malbran (Argentina); Management Sciences for Health; ReAct Ecuador; Asociación Panamericana de Infectología; and Sociedad Latinoamericana de Infectología Pediátrica.
- Members of the Technical Advisory Group on Antimicrobial Resistance and Infection Prevention and Control will be co-facilitating the discussions.

#### Presentation

- 9. Member States are invited to discuss successful initiatives and experiences on antimicrobial resistance containment.
- 10. Graphics, printed materials, and audiovisual material will be exhibited in the areas contiguous to the Directing Council session rooms.

### **Action by the Executive Committee**

11. The Executive Committee is invited to take note of this report and offer any comments it may have.

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