## The role of access to affordable and quality assured blood and blood products for achieving Universal Health Coverage

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The theme of World Health Day 2018 is 'Universal health coverage: everyone, everywhere' under the slogan 'Health for All'. Universal Health Coverage (UHC), as pertains to blood and blood products, means that all individuals and communities have access to affordable and timely supplies of safe and quality-assured blood and blood products (1,2). Blood and blood products are essential components in the proper management of women suffering from bleeding associated with pregnancy and childbirth; children suffering from severe anaemia due to malaria and malnutrition; patients with blood and bone marrow disorders and immune deficiency conditions; victims of trauma, emergencies, disasters and accidents; and patients undergoing advanced medical and surgical procedures (3).

Globally, the World Health Organization (WHO) has been at the forefront of the movement to improve access to affordable and quality assured blood and blood products as mandated by successive World Health Assembly (WHA) resolutions, namely WHA28.72 'Utilization and supply of human blood and blood products' (4), WHA58.13 'Blood safety: proposal to establish World Blood Donor Day' (5), and WHA63.12 'Availability, safety and quality of blood products' (6). In line with these resolutions, blood and blood products (whole blood, red blood cells, platelets, frozen fresh plasma and plasma-derived medicinal products) were also added to the core list of the WHO Model List of Essential Medicines from 1979 to 2013 (7), and which is still currently valid.

At the regional level, the WHO Regional Committee for the Eastern Mediterranean, in its 63rd session in 2016, adopted resolution EM/RC63/R.5 that endorsed the Regional Strategic Framework for blood safety and availability 2016–2025. The Framework acts as a guide for countries to develop and strengthen national blood systems; improve access to affordable and timely supplies of safe and quality-assured blood and blood products to meet patients' needs; and contributing to achieving UHC (3).

About seven million units of blood are collected annually in the Eastern Mediterranean Region (EMR), with blood donation rates ranging widely among Member States, from 0.7 to 29 units per 1000 population.

Six countries have inadequate supply of blood, with blood donation rates less than 10 units per 1000 population. Only half of the total collection in the Region comes from voluntary, non-remunerated blood donors. Many countries still depend on family/replacement donations, as requested by some healthcare delivery institutions that are short of blood supplies, which compromise safety and sustainability of blood supply. Moreover, the quality and effectiveness of screening tools for detection of transfusion-transmitted infections, covering known and newly emerging pathogens, remain a concern. In addition, the majority of patients with blood, bone marrow disorders and immune deficiency conditions do not have access to life-saving plasma-derived medicinal products, which are often imported at huge cost to governments (8). Out of pocket payments and insufficient public financing of blood and blood products are also main barriers to access in most EMR Member States (9).

At the national level, blood systems are in place in all EMR Member States and have a vital role to play in the delivery on UHC. However, despite previous efforts, inadequate attention has been given to address challenges in meeting the increasing clinical needs of patients for blood and blood products through the establishment of an appropriately regulated, effective national blood supply and transfusion service, as part of the national health system. In some countries, the development of blood systems has been largely restricted to major cities and access is still not guaranteed for those in most critical need for these products.

In January 2016, the global development community committed to the 2030 Agenda for Sustainable Development Goals (SDGs). Those health targets for SDG 3 that pertain to blood and blood products challenge governments and partners to achieve UHC, reduce the global maternal mortality, end preventable deaths of newborns and children under 5 years of age, and end the epidemics of AIDS and hepatitis (10). The increasing global attention on the SDGs and the set targets provide much needed impetus to focus on proven interventions to achieve UHC and other health targets for SDG 3. These cannot be ensured without significant investment in access to affordable and quality assured blood and blood

products.

Ministries of health are responsible for meeting the clinical needs of patients for blood and blood products. These responsibilities include ensuring the quality, safety, availability and equitable distribution of these products through the establishment of an appropriately regulated and effectively managed national blood supply and transfusion services, with financial protection. This requires identifying gaps through in-depth analysis of factors affecting access to affordable and timely supplies of safe and quality-assured blood and blood products and implementing evidence-based interventions, in line with the priority interventions identified in the Regional Strategic Framework for blood safety and availability 2016–2025 (3).

The five priority interventions guiding countries to address gaps in the blood regulatory, supply and transfusion systems are, leadership and governance of the blood system; strategic partnerships and collaboration between concerned partners (blood donor organizations, patients' associations, academic institutions, among others); provision of safe blood and blood products; appropriate and evidence-based use of safe blood, blood products and patient blood management; and quality system management throughout the blood transfusion chain (3).

In conclusion, national governments and relevant partners must provide the necessary financial resources to address gaps in the blood regulatory, supply and transfusion systems. This is imperative in order to improve supply of blood and blood products that comply with quality standards, as well as ensure good practices from the vein of the blood donor to the vein of the patient (vein-to-vein). Member States need to make the long-term investments and structural changes required to build stronger national blood systems that can contribute towards meeting UHC and SDG commitments.

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