Survey on the availability of essential equipment, guidelines and medications for cardiovascular disease in primary health care facilities in nine African countries

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AIM
• To assess the availability of equipment for diagnosis of CVD at PHC level.
• To assess the availability of guidelines for management of CVD at PHC level.
• To assess the availability of medicines for CVD and diabetes at PHC level.

METHODS
• The survey was coordinated and funded by the African Heart Network (a WHF affiliate).
• The survey was conducted in 9 countries.
• Random selection of government health centers at primary health care level (i.e. not hospitals) with at least 3 health centers in urban areas & 3 in smaller cities/rural areas.
• Approval was obtained from appropriate health authorities in each country.
• Data were collected between 2014-2016.
• Assessment was conducted in each of the selected health centers.
• Information on the equipment and guidelines available at the health centers was based on a structured questionnaire administered to 2 senior managers of the health center.
• Health centers were informed of the visits by survey officers.
• 2 survey officers administered a structured questionnaire to 2 senior staff members in each health center (i.e. no contact with patients).
• Information on medications available in the health center was based on counting all CVD medications available in the dispensary of the health center during the survey visit.

RESULTS
Table 1. Characteristics of health centers (HC)
• Countries are ranked along GDP/capita (int $): Burundi (BIR), Niger (NIG), Uganda (UGA), Benin (BEN), Kenya (KEN), Sudan (SUD), Tunisia (TUN), South Africa (RSA) and Seychelles (SEY).
• In each country, HC were staffed with at least 1 doctor on average.
• HC reported 13-233 patients/day.
• All countries reported to provide care to hypertensive or DM patients.

Table 2. Proportion of health centers (HC) with guidelines
• A list of essential meds. was found in nearly all HC in all countries.
• Guidelines for hypertension and diabetes were found in a majority of HC in most countries except in countries with lowest GDP.
• Guidelines for other CVD conditions (MI, cholesterol) were found mostly in the few countries with the highest GDP.
• WHO PEN Guidelines were found only a few HC in few countries.

Table 3. Proportion of health centers with basic equipment
• A device for BP measurement was found in nearly all HC in all countries.
• A large cuff was found in only a few HC in few countries of higher GDP.
• A glucometer was found in a majority of HC in most countries.

Table 4. Proportion of health centers with CVD medications
• Furosemide was found in most HC in most countries (of note furosemide is not suitable for hypertension treatment in most patients).
• The availability of other classes of antihypertension medications was low in low GDP countries and high in higher GDP countries.
• The availability of glucose lowering medications in HC, including insulin, increased largely with a country’s GDP.
• A same strong GDP gradient was found for aspirin and statins.

CONCLUSION
• Basic equipment, guidelines and medications for CVD were largely inadequate at primary health care level in a majority of countries in the African region, but the situation was adequate in a few countries with higher GDP in the region.