# CHAPTER V CONCLUSIONS AND POLICY IMPLICATIONS

#### 5.1. Conclusions

This study aims to analyze the prices, availability and affordability of 50 essential medicines in six states in Sudan crosses three sectors public, private and Revolving Drug Fund (RDF), and assess factors affecting medicine price ratio between capital and other states. 99 medicine outlets were surveyed to get data regarding prices, availability, medicines source and type (IB, LPG).

The price of lowest price generic medicines paid by patient in Sudan is high in public sector, where the pharmacies are controlled by NHIF, medicines were price 2.98 times international reference prices, while the retail price of the OB was 2.67 times their IRPs. Private sector is low when compared to the public sector on the retail prices, on average, 20% and 5% for OB and lowest price generic respectively.

In the private the sector LPG were priced at 2.9 times their international reference prices and the OBs were priced at 4.24 times their international reference prices. However the private sector retail prices on average, 34.5% and 9.9% more for the OBs and LPGs respectively when compared to RDF sector.

The retail prices of medicines in the significantly vary among states, in private sector, in West Darfur the patient paying 3.71 times international reference prices, while in Khartoum where minimum retail prices set at only 2.61 times their international reference prices.

In public sector 50% of LPG medicines were priced between 1.66 (25 percentile) and 4.69 (75 percentile) times their IRPs. While 50% of the OBs were lay between 1.68 to 3.24 times IRPs respectively. In the private sector 50% of LPPGs were lay between 2.01 and 5.81 times IRPs and 3.32 to 8.18 for the OB medicines times their IRPs respectively. Given these variations, many factors were found to affect these disparities.

Generally the availability of lowest price generic medicines given by this study is good in public sector (68.2%), fair in RDF sector (53.4%) and very good in the public sector (83.9%). However the availability of originator brand medicines was very low, the highest availability of OB medicines found in the public sector

(14.30%). Medicines with particular low availability in the public sector include Simvastatin 20 mg (0.0%), Salbutamol inhaler (14.30%) and Salbutamol syrup (14.30%).

Given fair availability in RDF where the medicines retailed at lower prices compared to the two other sectors, patients forced to buy their medicines in prices little bit higher from public and private sectors.

Affordability of medicines in Sudan is poor, given the common conditions assessed for affordability, only five conditions were found to cost less than 1 days' wage for lowest paid unskilled government workers 12 SDG (local currency) in the three sectors includes; Diabetes treated with Glibenclamide 5mg tablet, Hypertension treated with atenolol 50mg tablet, Respiratory tract infection in children treated with Co-trimoxazole suspension, Anxiety treated with Diazepam 5mg tablet and Pain/inflammation in children using Paracetamol syrup.

# 5.2. Policy implications and recommendations

# 5.2.1. Dissemination results of this study

This study will be disseminated through different means to attain maximum benefits; it will contribute to increase HAI prices data base, where other countries can compare to it is results and findings

### 5.2.2. Policy options

#### Medicines prices:

The prices disparities among states need to be regulated and controlled, meanwhile, medicines prices in Sudan need to be adjusted to the international reference prices to improve medicines affordability

- (1) Control medicines prices
- Enforce price regulations at the states level, through State Miniseries of Health pharmaceutical directorates.
- More studies should be conducted on overhead cost variation among states, to set-up clear markups and profit margin in all states.
- Assess the pricing policy in Sudan, and consider international reference pricing (benchmarking) as tool to adjust and control generic prices.

- Continuous monitoring of medicines prices to evaluate the effect of any interventions.
- (2) Improve government procurement and retail prices
- Enforce public sector group purchasing of medicines, including all stakeholders.
- The pricing policy in the public sector need to be evaluated, specifically, those for National Health Insurance Fund.

### Availability

Regarding the low retail price found in Revolving Drug Fund medicine outlets, this sector need to be strengthened and reorganized to achieve their missions toward improve access

- Essential medicines should be on the top of priorities when supplying medicines in RDF and public sectors.
- Medicines regulatory authorities if necessary to encourage local pharmaceutical agencies, local manufacturers and medicines suppliers to ease have stores in at least each state capital.

## **Affordability**

To improve affordability, many factors can be considered. However, in this study, only medicine prices were assessed, there for options and opportunities to improve affordability can be summarized in:

- Exempt essential medicines from government fees.
- Dissemination of medicine prices to public will increase prices transparency.
- Generic promotion, through public sectors including social health insurance scheme