



Cost Effective Cardiovascular Interventions for low and middle income countries

Absolute Risk Approach to Management of Cardiovascular risk



Determinants of CVD Risk

Smoking

Physical inactivity

Unhealthy diet

**Intermediate
risk factors**



Determinants of CVD Risk

Intermediate risk factors

Hypertension

Hyperlipidemia

Diabetes Mellitus



Treatment Decisions Based on comprehensive CV risk

- **Cost-effective**
- **Efficient use of limited resources**
- **Better health outcomes**



Assessment of CVD Risk

Smoking, PI, Unhealthy diet

Age, Family history

HBP

Diabetes, High lipids (Lab. Assays)

ACC/TOD (retinopathy, LVH, renal function, ECG, Echo,)





Barriers in PHC

Competency of HCP

Weak infrastructure

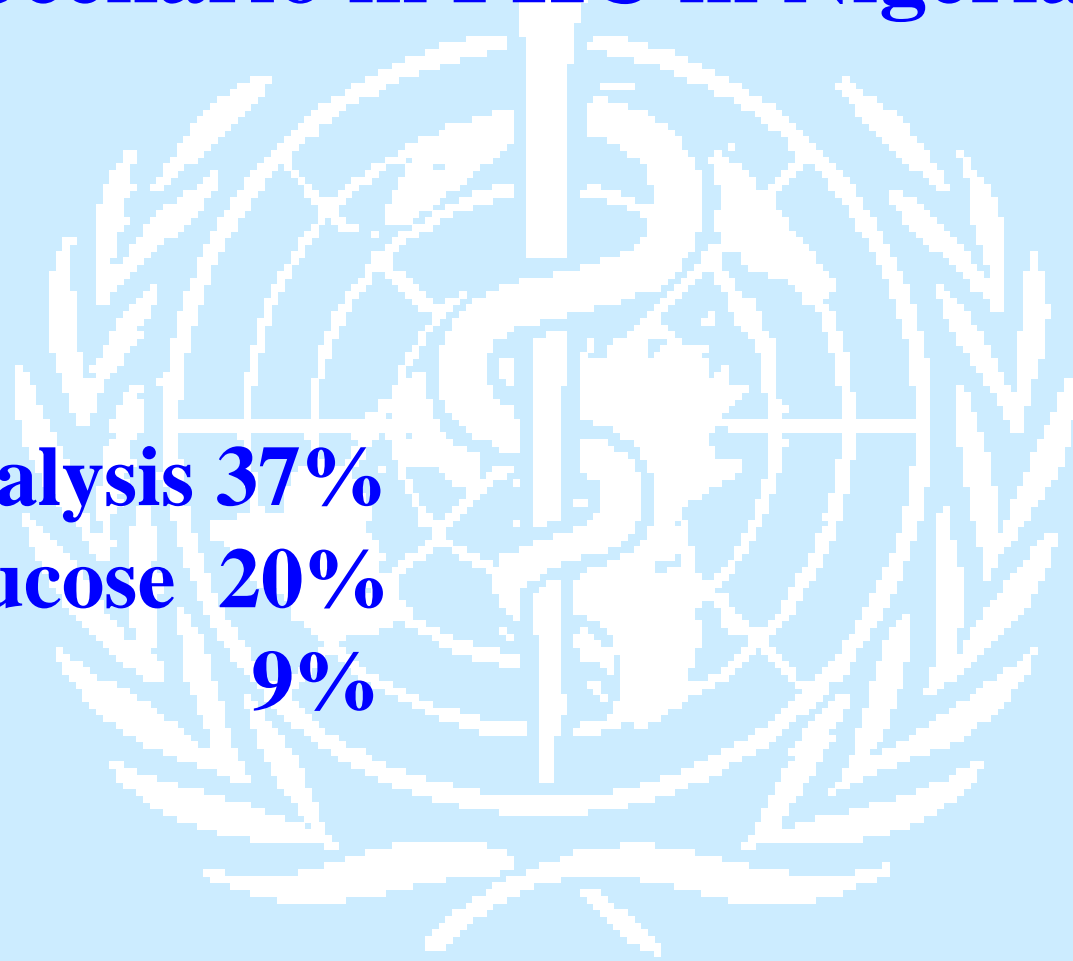
Limited financial resources

Disorganised referral systems



Scenario in PHC in Nigeria

Urine analysis 37%
Blood glucose 20%
Lipids 9%





Challenges

Evidence based

Safe

Flexible

Simple

Affordable/sustainable



WHO CVD- Risk Management Package

- ◆ Preparation 2001/ 2002
- ◆ Expert consultation- July 2002
- ◆ Publication-Dec 2002





Core Module

- Scenario 1: (PHC/Non Physician Health Care worker)
- Scenario 2: (Physician/ specially trained nurse)
- Scenario 3: (Physician/access to full specialist care)



WHO CVD-Risk Management Package

Uses hypertension as entry point

**Can be used for managing
hypertension and diabetes using
scenario 2/ 3 protocols**



Adaptation to settings/No blue print

BP measurement

SBP

Diet protocols

Follow up duration



Implementation Sites

Bangladesh

Chile

Egypt

Guinea

Indonesia

Sri Lanka

Benin

China

Ghana

India

Mozambique

Tunisia

