Community based health education by CVD nurses (whole district)

Community based screening and monitoring of blood pressure by licensed chemical sellers (LCS) and Community Health Officers (CHOs) (whole district)

Community based diagnosis, counseling, follow up by CVD nurses (whole district)

Automatic ICT referral of patients with severe hypertension or co-existing conditions to a physician

SMS (Text or Voice-3 language choices) for health education, treatment adherence support, treatment refill, and appointment reminders

Cloud based health records system linking SMS for treatment, reminders and health messaging

Supplementary figure 1) components of the ComHIP Programme

| Visit Number | When? | Activity | | |
|-----------------------|---|--|--|--|
| I | After patient has been screened and referred by LCS, CHO | CVD Nurse to recheck BP | | |
| 2 | Two weeks after visit I | CVD Nurse to recheck BP and confirm diagnosis Enroll patient, perform risk assessment, perform anthropometric measurements Refer to Referral SOP for CVD nurse for all patients that should be referred to Physician. Initiate treatment Order laboratory investigation as needed Perform Hypertension counseling | | |
| 3 | 6 weeks after visit 2 | Re-check BP Assess treatment, perform counseling | | |
| 4 | 6 weeks after visit 3 | Review treatment plan until goal is reached Perform anthropometric measurements every 3 months after enrollment | | |
| 5 & subsequent visits | Every 3 months for patients with Mild Hypertension (treated by CVD nurse) | Re-check BP, review treatment, assess for risk factors, perform Hypertension counseling | | |
| | Every 2 months for patient with Moderate Hypertension (treated by CVD nurse) Monthly for Patients with High (treated by Physicians only) | Conduct follow up assessment every 6 months after enrollment | | |

Supplementary Figure 2. guidelines for patient visits

| Phase | Activity | Community Health Officer | Licensed Chemical Seller | CVD Nurse | Physician |
|---|---|--------------------------------|--------------------------------|--------------|-----------|
| Phase 1: Screening | Community BP screening | Yes | Yes | No | No |
| | Screening referral | Yes | Yes | No | No |
| Phase 2: Diagnostic Evaluation | Confirmation of BP (HTN) diagnosis | No | No | Yes | Yes |
| | Staging of degree of HTN | No | No | Yes | Yes |
| | Assessment of other CVD risk factors | No | No | Yes | Yes |
| | Assessment of prevailing CVD symptoms | No | No | Yes | Yes |
| | Overall risk assessment/ Stratification | No | No | Yes | Yes |
| | Assessment of family history of CVD | No | No | Yes | Yes |
| | Laboratory investigation | No | No | Yes | Yes |
| | Assessment of target organ complication | No | No | Yes | Yes |
| | Assessment of Lifestyle Issues | No | No | Yes | Yes |
| | Diagnostic referral | No | No | Yes | No |
| | Baseline Anthropometry | No | No | Yes | Yes |
| Phase3: Management, Monitoring & Follow Up | Recommendation for drug treatment | No | No | Yes | Yes |
| | Medication Dispensing | No | Yes | No | No |
| | Recommendation for Non-drug treatment | Yes | Yes | Yes | Yes |
| | Evaluation of drug side effects | No | Yes | Yes | Yes |
| | Monitoring of BP response to treatment | No | Yes | Yes | Yes |
| | Adherence Counselling | No | Yes | Yes | Yes |
| | Anthropometric monitoring | No | No | Yes | Yes |
| | Regular follow up and interaction | No | No | Yes | No |
| | Management referral | No | No | Yes | Yes* |

Supplementary Table 1) Summary of roles of various service delivery personnel

- I. Diuretic: Bendroflumethiazide. –initial dose, 2.5mg daily. Maximum dose of 5mg daily.
- II. Beta-blocker: Atenolol-initial dose of 50mg daily. Maximum dose of 100mg daily provided the heart rate is greater than 60/min on the lower dose.
- III. Calcium channel blocker: Nifedipine retarde or XL -initial dose 30mg daily. Maximum dose of 60 to 90 mg daily.

Supplementary Table 2) Recommended medications and dosages

^{*}In rare instances, certain patients may be referred by the Physician to a hypertension specialist