4.3 Tools for Quantifying Needs and Setting Targets

Here are some examples of applying the CoC when designing interventions targeted at primary, secondary and tertiary care levels.

For Primary Prevention Interventions:

CoC4 Diagnosis

**Intervention:**
Create and implement a community or facility-based RHD awareness campaign in a district and/or facility. Supplement the Awareness Campaign by providing training to Community Health Workers and/or Nursing Staff training for Sore Throat case identification. This campaign and/or training programme could be added on to an existing health awareness campaign; likewise, the RHD training material could be incorporated into an existing training curriculum.

**Measurement:**
How many workers were trained during the target period?  
How many sore throat cases are identified post training against the number of sore throat cases identified before training?  
Has the awareness campaign become part of the annual budget for health services?  
Has an RHD Training/Awareness module been incorporated into the CHW and/or Nursing continuing education curriculum?

CoC6 Treatment for strep throat

**Intervention:**
Create and implement a programme to monitor and report the availability of medicines (including penicillin) on hand at primary healthcare facilities. Monitor the availability of penicillin during peak seasonal sore throat incidence to proactively manage stock outs.

**Measurement:**
How many doses of penicillin were given to sore throat cases?  
How many clinics were appropriately supplied with penicillin during peak seasonal sore throat incidence periods?  
Have the reports been adopted for use by local health officials to plan and monitor allocation of resources/medicines?

For Secondary Prevention/Prophylaxis:

CoC1 Identified Socio-Economic Conditions

**Intervention:**
The cost of travel to a health care facility for secondary prophylaxis has been identified as being prohibitive. Clusters or groupings of RHD patients have been identified that may benefit from secondary prophylaxis delivery at outlying sites. Create and monitor a secondary prophylaxis programme that is more accessible to patients. This medicines delivery programme could serve other medical populations.

**Measurement:**
How many RHD patients are served by the programme?  
How many RHD patients are served by the intervention that did not receive regular prophylaxis before the programme?  
Have permanent staff and resources been allocated (budgeted) for this programme?  
Survey to find out why some clinic patients may not be taking part in the programme.
CoC3 Entry into health system

Intervention:
Create and implement an awareness campaign in a district and/or facility on the need and benefits of secondary prophylaxis for RHD patients among Community Health Workers and/or Nursing Staff. Providing these training opportunities will increase the numbers of Community Health Workers who have been educated about the benefits of secondary prophylaxis adherence; this will facilitate entry into the health system for RHD Patients.

Measurement:
How many workers were trained during the target period?
How many new RHD patients are on secondary prophylaxis post training against the number of those on secondary prophylaxis identified before training?
Has the awareness campaign become part of the annual budget for health services?
Has an RHD Training/Awareness on the benefits of secondary prophylaxis module been incorporated into the CHW and/or Nursing continuing education curriculum?

CoC7 Secondary prophylaxis Adherence

Intervention:
Fear of anaphylaxis among front line health workers has been identified as a barrier to adherence. Provide training and supplies (kits) to front line staff for managing anaphylaxis.

Measurement:
How many front line health care workers attended the training sessions?
How many anaphylaxis kits were distributed?
Have funds for making these kits available been budgeted on a permanent basis?
Has a module on managing prophylaxis been incorporated into a front line health worker training curriculum?

For Tertiary Prevention:

CoC9 Management of tertiary interventions

Intervention:
Introduce Point-of-Care INR machines and measure the impact of patient compliance and bleeding outcomes.

Measurement:
How many POC INR machines have been placed in the lab or outpatient clinic?
How many healthcare staff have been trained to use the machines?
How many RHD patients got POC INR testing in a given period?
How many more INR tests have been performed since their placement in the facility than over a given period prior to their placement?
Have POC INR machine purchases and distribution to lower level facilities been approved by local health officials?

CoC10 Rehabilitation, recovery and palliation

Intervention:
When surgical options are available to RHD patients, assemble a team to design, disseminate and follow-up care plans post-surgery with families. Work with the surgical team to piggy back these post op care plans with other existing protocols when possible or appropriate.

Measurement:
How many post-surgical RHD patients and/or their families received post-op care plans upon discharge to home?
Has the protocol been adopted for use by the facility?
Have personnel been allocated to deliver the post op care plans to these patients?
<table>
<thead>
<tr>
<th>Step</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of cases identified during needs assessment</td>
<td>20 persons aged 5-39</td>
</tr>
<tr>
<td>Number of at-risk persons in catchment area (site)</td>
<td>40,000 persons aged 5-39</td>
</tr>
<tr>
<td>Empirical “prevalence” ratio</td>
<td>$\frac{20}{40,000} = 0.0005$</td>
</tr>
<tr>
<td>Expected prevalence ratio (based on systematic review)</td>
<td>0.00175</td>
</tr>
<tr>
<td>Expected total number of cases</td>
<td>$0.00175 \times 40,000 = 70$</td>
</tr>
<tr>
<td>Targeted number of new cases to be identified and/or for outreach</td>
<td>70 – 20 = 50</td>
</tr>
</tbody>
</table>

Note: Consider using a range of targeted number of cases rather than point estimate. For example, the upper and lower bounds of expected prevalence ratios from the literature rather than mean estimates.

As the interventions themselves will be specific to each sites, the instruments illustrated in this section are based on example interventions to give the user some guidance for content, objectives and approaches.