

QUALITY ASSURANCE MECHANISM FOR ITNS: AN EXPERIENCE FROM PAKISTAN

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SEQUENCE OF PRESENTATION

- **Malaria in Pakistan**
- **Use of ITNs in Pakistan**
- **Quality Assurance (QA) mechanism at national level**
- **Out of specification (OOS) OR faulty nets during 2020**
- **Challenges with nets during 2023**
- **Recommendation**

MALARIA IN PAKISTAN

- Despite **remarkable reduction** in malaria burden (40% estimated caseload WHO 2020), **30%** of pop. lives in highest risk transmission area.
- Around **376,000 confirmed malaria** cases has been report in 2021 (PHFs)
- During recent floods (2022), all 60 high burden sharing districts were **badly affected**. Resultantly, a marked rise in malaria cases from July in country reaching an “**State of Emergency**” in August. **1.78 Million** cases reported from PHFs. **Actual almost 3.0 Million cases**
- Current outbreak has been ranked as the **heaviest resurgent** during last 50 years.
- The WHO expert expected an **extended and intense transmission** season beyond December 2022 after the recession of flood water
- Malaria elimination roadmap (2021-2035) has been developed in 2020 targeting “**Malaria Free Pakistan 2035**”
- Regardless of theses challenges, NMCP-Pakistan still believe to achieve this goal. At first phase (2027) country has the target to declare “**Elimination/zero malaria**” in Punjab, AJK, BG, and Islamabad territory. These provinces constitute **70% population** of the country.
- All Provincial Malaria Control Prog. have been transferred to “**Regular side**” of the provincial governments

MALARIA IN PAKISTAN (CONT..)

- Main Transmission Period: **Post Monsoon (Aug-Nov)**
- Annually the clinical M. Cases Treated As Malaria Infections at Public Health Facilities **HF: 4 – 4.5 M**
- Vivax & falciparum Malaria: **78% and 21% (1% Missed infection)**
- Key P. Measure: Indoor Residual Spraying (**IRS**), **LLINS** & Larval Source Management (**LSM**)
- Vector Species: ***An. culicifacies*. *An. stephensi***
- Flood affected areas: **100%** samples of mosquitoes were identified as ***An. pulcherris***
- Not a **single specimen** of traditionally believed vector *An. culicifacies*
- On other hands **20 times** more malaria cases in these areas
- Under investigation that change of spp. composition due to **Climate Change** and also the **potential role** of *An. pulcherrimus* in malaria transmission in Pakistan.
Note: *An. pulcherrimus* is confirmed vector spp. in Iran and Afghanistan
- If proven in, might be **the entire strategy** for malaria control has to be revised



USE OF ITNs IN PAKISTAN

- Pakistan is using ITNs since 2005 using a **Rolling Approach** for covering a district over several months by program itself or implementing partners.
- Pakistan is relatively newer into MD campaigns.

Year	No. of Nets (Million)	Target Districts	IP	Remarks
2018	2.5	11	WFP	Fixed site & two phase distribution i.e. HHR followed by distribution.
2019	2.4	14	IFRC & PRCS	
2020	1.5	9	Program itself	1 st campaign by program itself under classic example of COE or humanitarian emergencies & COVID Pandemic
2021				Postponed due to COVID-19
2022	3.5	14	MERF	Conducted under humanitarian emergencies setting of massive floods in the country.
2023	6.1	20	In Process	The biggest MD campaign
	9.9 + 6.1 = 16M			

QUALITY ASSURANCE MECHANISM FOR ITNS IN PAKISTAN

- **100% ITNs** through The Global Fund (TGF) support
- However, the NMCP as Principal Recipients (PR) only have **post shipment** inspection of nets when received in regional/provincial warehouses
- PR(s) do **not** have any involvement in **Pre-shipment** of nets in country
- However, procurement through **Domestic Resources**: pre-shipment inspection is **mandatory**
- Inspection at **port of arrival**
- **Bio-efficacy/Chemical Contents** (Dose) also mandatory
- **> 5%** faulty material/Samples, The entire consignment is rejected AND/OR Replaced at the cost of supplier
- Repeated faulty material resulted in “**Black listing**” of firm 3-5 years/Permanently
- However, none of these condition for Donor supply at country level

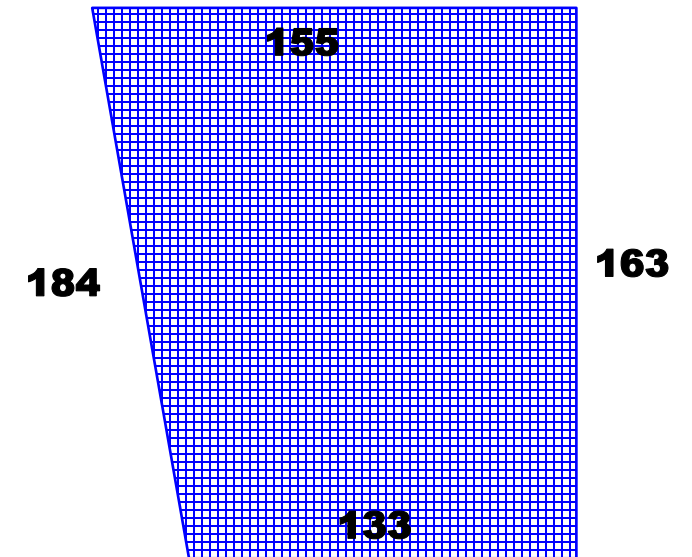


OUT OF SPECIFICATION/FAULTY NETS DURING 2020

- During 2020 DoMC received **2.1 M** nets
- Net were **provided through IDA** (Procuring Agent of TGF)
- **Pre-shipment** inspection done by Crown Agent (CA)
- Post-shipment inspection, both PRs identified **serious issues** with dimension of nets & **possible chemical contents**
- Sample size: **1000** (As per IDA guideline for sampling)
- **Not any side** of eighth length or width was **same**
- Stitching quality: Very poor and like **zigzag**
- **Not A Single net** according required specification



Dimension (Cm)	Required	Min	Max	Av
Length	180	163	203	185
Width	160	133	155	141
Height	150	138	180	161

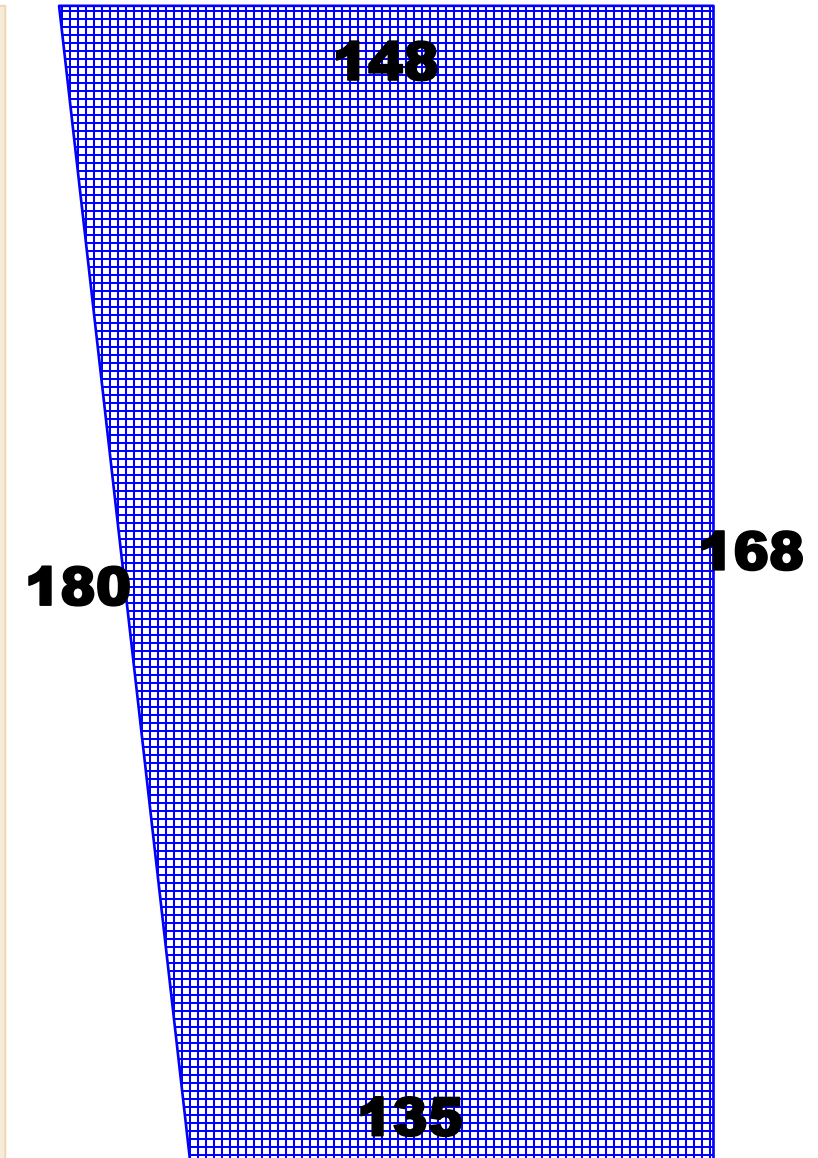


OUT OF SPECIFICATION/FAULTY NETS DURING 2020 Contd..

- Joint report from both PRs with clear decision “**Not to Accept**” these OOS or Faulty nets
- A **series of discussion** with donor, Procuring agent (IDA), CA
- Again Crown Agent (CA) assigned **Third Party** inspection by donor
- Same CA **100% cleared** these nets at the time of pre-reshipment
- Both PRs raised the severe concern of “**Conflict of interest**”
- **Not agreed** by donor
- Both PRs and LFA were invited as **observer**
- **Many limitations** for both PRs during 3rd inspection by CA
- Both PRs were committed “**Not to Compromise**” on quality of nets

OUT OF SPECIFICATION/FAULTY NETS DURING 2020 Contd..

- 148 cm & 168 cm were decided the **acceptable range** ($\pm 7\%$ margin or error)
- The CA inspectors used an anonymous formula (**self satisfaction practice SSP**) for section of side(s) for measurements
- CA inspectors did not follow SOPs developed by IDA for measurements rather try to measures the nets for **qualification/passed.**
- If 1st measurement is >148 cm or 170 cm, **no more reading** and net qualify
- If 1st measurement is <148 cm or 170 cm, took the reading of other side to make the net qualify
- Counter measurements by PRs & **100%** nets were again **disqualified**



OUT OF SPECIFICATION/FAULTY NETS DURING 2020 Contd..

- **As confirmatory test**, Fitting on metallic frame (180x160x150 cm)
- *None* of sample net **“Fit-On”** the melodic frame due to its smaller size
- After 3rd party inspection, CA concluded that **about 50%** nets were smaller in size as compared to what was ordered
- Counter measurements by PRs. PRs declared **100% nets faulty** or OOS
- PRs suggested **chemical/insecticides analysis** of supplies nets
- **Not allowed/agreed** by donor
- If PR do the chemical analysis at their own cost, the results will **not** be accepted
- New guideline by TGF (2023): **no post delivery inspection by PRs**
- However, this is under discussion by Program Management



WET BALES 2020

- it was noticed in one regional (Bannu) warehouse
- 5 containers having 5650 bales were **totally wet**
- **Abundant water** was there at the time of opening of containers
- **No sample** for measurements was taken from these wet bales
- Insurance was claimed by PR (TIH)
- All parties (DoMC+TIH+TGF) **agreed on companion**
- Distribution in 2020 (campaign 2020); 2021 (ANC) and 2022 (near to complete their life!!!!)
- Though PRs still suggested the chemical analysis of nets before distribution



CHALLENGES FOR ITNS DURING 2023

- Under the global fund UQD approved grant, DoMC **ordered 6.1 Million** nets to be distributed during 2023
- Based on NMCP inability to import Indian origin nets, TGF contacted WHO to import these nets from India
- However, following main challenges were identified:
 - Origin of nets was from '**India**, Trade is **banned** due to some political reasons
 - Manufacturing date: Oct-2022, if distributed around Aug 2023 nets will have only **two years** left for expiry
 - Supply in Trenches. 1st trench has 375,000, Next expected 1.0 M
 - Very unstable political situation between Pakistan and India
- Program **suggested** to consider procurement of ITNs from locally manufacturing WHO PQ Listed brand which can save the huge cost and time of delivery

RECOMMENDATION

- PRs should **only accept** the shipment only as per required specifications
- The **donor should consider** the program feedback/findings
- For future procurement, **no relaxation of +/- 7.5 %.**
- PRs/Program **must be the part** of Post delivery inspection.
- Program **enhance its capacity** for operational research which includes durability study, bio-efficacy study and community-base surveys etc
- **Shelf life** should be consider while finalizing the manufacturer & supply
- Lead-time should be shorter, otherwise distribution of nets during Non-Transmission season
- The manufacturer/Procuring Agent & Supplier must be **Black-Listed** both by donor as well as by program in case of OOS/Faulty supply

Thank You All