Elimination efforts in Bangladesh: lessons learned and challenges remaining

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MoU was signed in 2005 and VL Elimination Activities had started in 2006-2007 when:
- 45 districts were VL endemic
- 40 million people in 134 sub-districts were at risk for VL
- Estimated annual VL burden was about 24,000
- SSG was the only available drug for treatment of VL and AT was the only serological test for diagnosis.
- National Guideline for VL case Management and Vector Control was under preparation
- No trained medical officers, nurses and laboratory technicians for VL and PKDL on modern case management in rural health facilities (upazila health complex / sub-district hospital).
- There was no VL vector control activities, infrastructure for IRS and BCC/IEC activities on VL
- A specialized center for management of complicated cases with VL and PKDL was not there.

However, Communicable Disease Control Unit, DGHS, GoB had passive disease (VL) surveillance in the country since 1994.
- IEDCR and icddr,b had generated knowledge on VL epidemiology in the country which subsequently was useful for the program.
Insights into the VL Elimination Program Activities

Therefore, the National VL Elimination Program, CDC, DGHS, GoB:

- Formed National Technical Advisory Group on VL elimination
- Set up strategies for VL elimination in the light of RTAG recommendation
- Trained hundreds of medical officers, nurses and lab technicians of the UHC
- Ensured rK39 rapid test in UHC
- Ensured “Miltefos” and later introduced “Impivado” for VL and PKDL case treatment. In 2014, introduced Single Dose AmBisome as the first choice for treatment of VL
- Placed billboard, distributed leaflets and conducted folksongs campaigns as BCC/IEC activities
- Build up infrastructure for IRS which has been going on till now and also distributed LLIN to the VL affected families
- Integrated into the program the useful operational research findings for improving active case finding, case management, disease surveillance, vector control, pharmacovigilance and Surja Kanta Kala-azar Research Center (SKKRC).
- Developed new concept for “Zero Transmission, named as “No Kala-azar Transmission Activity (NKTA)”
### Faced challenges and contribution of the partner(s) to solution

<table>
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<th>Challenges</th>
<th>Development Partner</th>
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<tr>
<td>Continuation of training of MO, nurses and lab technicians</td>
<td>World Health Organization</td>
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<tr>
<td>Improved treatment of VL and PKDL cases and introduction of Multi-dose Ambisome Monotherapy for VL and PKDL</td>
<td>MSF, Holland</td>
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<td>Stimulated Disease Surveillance</td>
<td>World Health Organization</td>
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<td>Effective Disease Surveillance (web-based)</td>
<td>TDR/ WHO, KalaCORE, UKAid</td>
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<td>Improved VL and PKDL case management and ensured their follow up</td>
<td>KalaCORE, UKAid</td>
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<td>Scale up BCC / IEC and advocacy activities for VL</td>
<td>KalaCORE, UKAid, PATH (iOWH)</td>
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<td>Improved diagnostic, drug and logistic management</td>
<td>KalaCORE, UKAid</td>
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<td>Set up SKKRC and its better functioning</td>
<td>DNDi, JICA, icddr,b, KalaCORE, UKAid</td>
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<td>Operational Research</td>
<td>CDC, USA; TDR/WHO; NTD/WHO; DNDi; PATH; FIND; UBS Foundation; Thrasher Research Funds; UKAid</td>
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<td>Scale up VL Pharmacovigilance</td>
<td>PATH</td>
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Trend of VL in Bangladesh (1994-2016)

In 2016 all VL endemic Upazila is going to have VL case number less than 1<10,000 people in Bangladesh
Lessons Learned

- VL is a controllable disease in Bangladesh
- Country specific strategies for achieving the target of the VL elimination were correct
- The Program successfully convinced the national policymakers to generate funds, logistics and human resources for deploying program activities in the affected areas
- VL and PKDL case management with sophisticated drug such as AmBisome is effective and feasible in the rural health facilities of the country
- Program needed support from national and international stakeholders and development partners to implement strategies of the elimination program
- Program successfully integrated, coordinated and led these activities by the different partners
- Program faced obstacles with drug and logistic supplies which delayed treatment of patients, in particular treatment of patients with PKDL
- Program had challenges with counterfeit drug
- Rapid turnover of trained personnel especially medical officers in UHC
Challenges Remaining

✓ **Current definition of the VL Elimination**: The post elimination phase needs new definition to reduce / stop transmission. Because if we consider that 100 UZ is VL endemic and average population of an UZ is 300,000 people, then Bangladesh still can enjoy achieving of VL Elimination even having an annual number of 2900 VL cases in the country.

✓ **Lack of strategy**: There is no defined / specific Regional / National strategy for sustaining the target of the VL elimination.

✓ **Slackness of partners**: National and International policymakers, development partners and stakeholders are already showing their less interest in VL elimination program, because VL related mortality is close to zero and VL burden brought down by 20 times compared to its burden in 2006.

✓ **Achieved expertise is under threat**: The SKKRC, the only specialized VL center in the country and also the excellent expertise in public and private sector which has been build up in the last decade are under threat because of reducing trend of the national and international support.

✓ **Insufficient advocacy in favor of the elimination program**

✓ **Hard to reach most important drugs for VL and PKDL case management**

✓ **Standard guideline for treatment of pregnant women with VL and children under age 5 with VL**
Challenges for stopping transmission

✓ New VL endemic areas are coming up
Challenges for stopping transmission

- Research for development of an effective vaccine against VL is neglected
- Transmission potential of VL relapse and PKDL is unworn
- Biomarker(s) for prediction of PKDL and VL relapse is missing
- Biomarker for development of symptomatic disease among asymptomatics is also poorly investigated
- Molecular point-of-care diagnostic for VL, VLR, PKDL at field level
- Except vector control methods, other ways for prevention of transmission and development of symptomatic disease is poorly explored
- Back up insecticide / alternative strategy for vector control is not available
- Community people awareness about VL and VL vector control fades with reduction of the disease burden in the community
THANK YOU