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Original Article

ASHA based Surveillance for Leprosy Suspects (ABSULS): An Innovation for Enhancing Active Case Search of Leprosy at Community Level

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National Leprosy Eradication Programme (NLEP), India, witnessed the successful implementation of several innovations since 2015 in phased manner such as Leprosy Case Detection Campaign (LCDC), Focussed Leprosy Campaign (FLC), Sparsh Leprosy Awareness Campaign (SLAC) etc. In the series, to strengthen the routine case detection and to address the need for quality surveillance for leprosy in the community, ASHA Based Surveillance for Leprosy Suspects (ABSULS) introduced in year 2017. Under this unique approach to detect cases early, Accredited Social Health Activist (ASHA), locally recruited community health worker, accountable for the health conditions of approximately two hundred households', report the number of suspects or nil suspects identified during the previous month with signature in the monthly meetings. The information submitted by ASHAs is compiled by supervisors and submitted in hierarchy which is validated through field visits by health system functionaries at each level in hierarchy. This active surveillance by the community itself and validation even of nil cases by health system is the gold standard to ensure early detection of leprosy cases in routine mostly without disability.

Keywords : Leprosy, ASHA, ABSULS, Surveillance, Suspects, NLEP, LCDC

Introduction

The ASHA programme was introduced as a key component of the community processes intervention under National Rural Health Mission in 2005 (NRHM 2013). The Accredited Social Health Activist (ASHA) is selected from the community where she resides. In order to improve the community's health status via ensuring accessibility to health services, the deployment of ASHAs done after capacity building (NRHM 2011). The ASHAs in the community have to perform several roles such as health activist, healthcare services facilitator and service provider. These activists from community like other health functionaries provide basic curative, preventive and promotive services. They are supposed to educate and mobilize community especially marginalized

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community for adoption of healthy behaviours. They have to spread awareness on social determinants, advocate for enhanced utilization of health services, participate in various health campaigns/missions and enable community to claim entitlements of various health schemes (NRHM 2013). They are provided with incentives for promotion activities under universal immunization programme, referral/ escort services under Reproductive & Child Health (RCH) programme and other healthcare programmes (NHM website).

Support system for ASHAs : NHM has also established a support system for ASHAs which is depicted in Fig. 1.

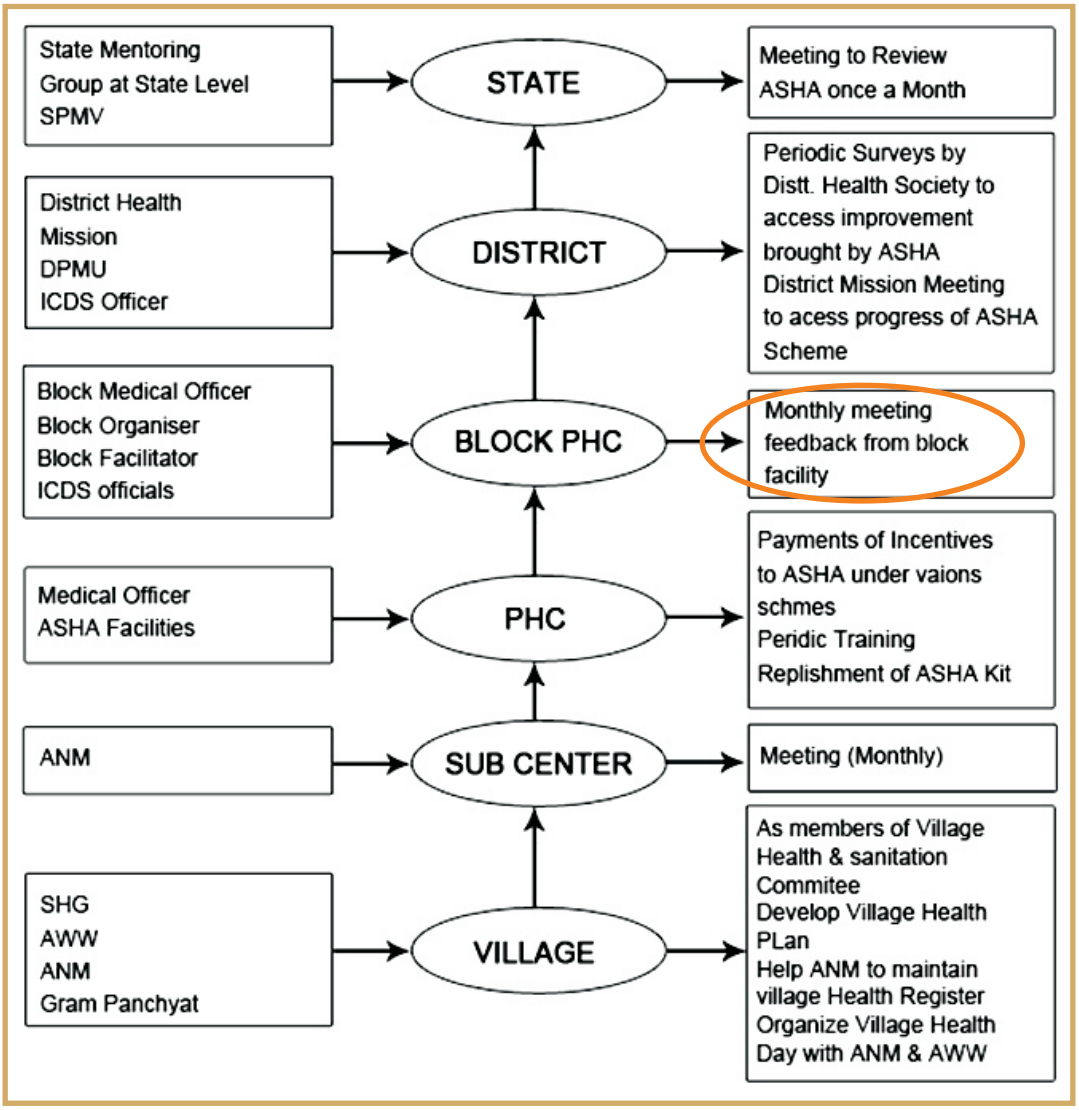

Fig.1 : Flow Chart of Support Mechanism for ASHAs

Under the support mechanism provided by National Health Mission (NHM) to ASHAs, it is mentioned that in rural settings, Primary Health Centre (PHC), is an ideal venue to conduct the monthly meeting and in urban areas, these meetings to be conducted in urban health centre. Medical Officer (MO) PHC is accountable to call monthly meetings, which is attended by Auxiliary Nursing Midwifery (ANM)s, ASHAs, Lady Health Visitor (LHV)s, Block Facilitator, Block Community Mobilizer (BCM) and Block Programme Manager (BPM). In the monthly meetings, performance review along with capacity building of ASHAs is done. In these meetings ASHAs are also given opportunity to share their experiences, problems and the issues regarding payment of incentive (NRHM 2014).

Under National Leprosy Eradication Programme (NLEP), ASHAs are instructed to bring out leprosy suspects from villages for diagnosis and confirmation at PHC and follow up of confirmed cases for treatment completion. Incentive being paid to ASHAs after leprosy case confirmation is Rs. 250. In addition, they are supposed to follow up the confirmed case for treatment completion and incentives being given for same are Rs. 400 for PB case and Rs. 600 for MB case follow up (PIP 12th Plan). However, it has been found in most of the studies conducted on ASHAs that awareness regarding their roles and responsibilities for various National programs is limited. They spend less time on low incentive-based programmes. In addition, lack of concurrent supervision, effective training/ orientation, excessive workload etc. leads to ignorance of various health programmes including leprosy (Guha et al 2018).

Further, situational analysis of NLEP indicators in 2015, revealed that Grade 2 Disability (G2D) percentage among new cases detected increased from 1.87% to 4.61% in 2005-06 to 2014-15 respectively with stable trend of Prevalence Rate (PR) and Annual New Case Detection Rate (ANCDR). This scenario suggest that cases are being diagnosed after considerable delay and disease transmission is continued along with possibility of undetected cases in community (Kumar et al 2019).

Hence, in order to interrupt the transmission of Leprosy in the community through establishing an active surveillance system which will catch & report even a single occurrence of leprosy disease event in the community, and to prioritize the leprosy case detection duty by ASHAs, ASHA based Surveillance for Leprosy Suspects (ABSULS) is designed (Guidelines for ABSULS). Under ABSULS the opportunity of existing monthly meeting of ASHAs to be utilised to collect the data on number of suspects or nil suspect identified & referred by ASHA during previous month with signature. Further, transmission of data submitted by ASHAs is ensured after compilation by supervisors in hierarchy for analysis and interpretation at District, State and Centre level. The information is also to be validated through field visits by health system functionaries at each level in hierarchy.

The objectives of **ASHA Based Surveillance for Leprosy Suspect (ABSULS)** are :

1. To conduct active surveillance of leprosy suspects including NIL reporting.
2. To prioritise leprosy case detection by ASHA.
3. To improve monitoring and supervision of leprosy cases detection activities at village level.

Methodology

In order to record suspects systematically total four formats are designed, which are to be filled and compiled by designated personnel. In ABSULS S1 format, name of ASHAs with areas assigned to them is filled by ANM/ MPW of Sub Centre (SC) and suspects identified & referred during the

month are filled by ASHAs with signature. The ANM/ MPW has to encircle the name of ASHA on ABSULS S1 whose area is randomly selected for the visit by ANM/MPW and submit the same to Medical Officer, PHC (MOPHC). In ABSULS S2 format all suspects identified & referred during the month to PHC are filled by MOPHC after the compilation of all ABSULS S1 formats submitted to MOPHC and submit the same to district leprosy office with signature. In ABSULS S3 format all suspects identified & referred during the month in the district are filled by District Leprosy Officer (DLO) after the compilation of all ABSULS S2 formats submitted to district leprosy office and submit the same to state leprosy office with signature. In ABSULS S4 format all suspects identified & referred during the month in State/UT are filled by State Leprosy Officer (SLO) after the compilation of all ABSULS S3 formats submitted to state leprosy office and submit the same to Central Leprosy Division (CLD) with signature.

All the formats are to be filled in duplicates, one copy to be retained at the level where it is filled and the other copy to be forwarded to higher level in hierarchy.

Surveillance of suspects in community : The steps to be followed for the surveillance of suspects in community under ABSULS are shown in Fig. 2.

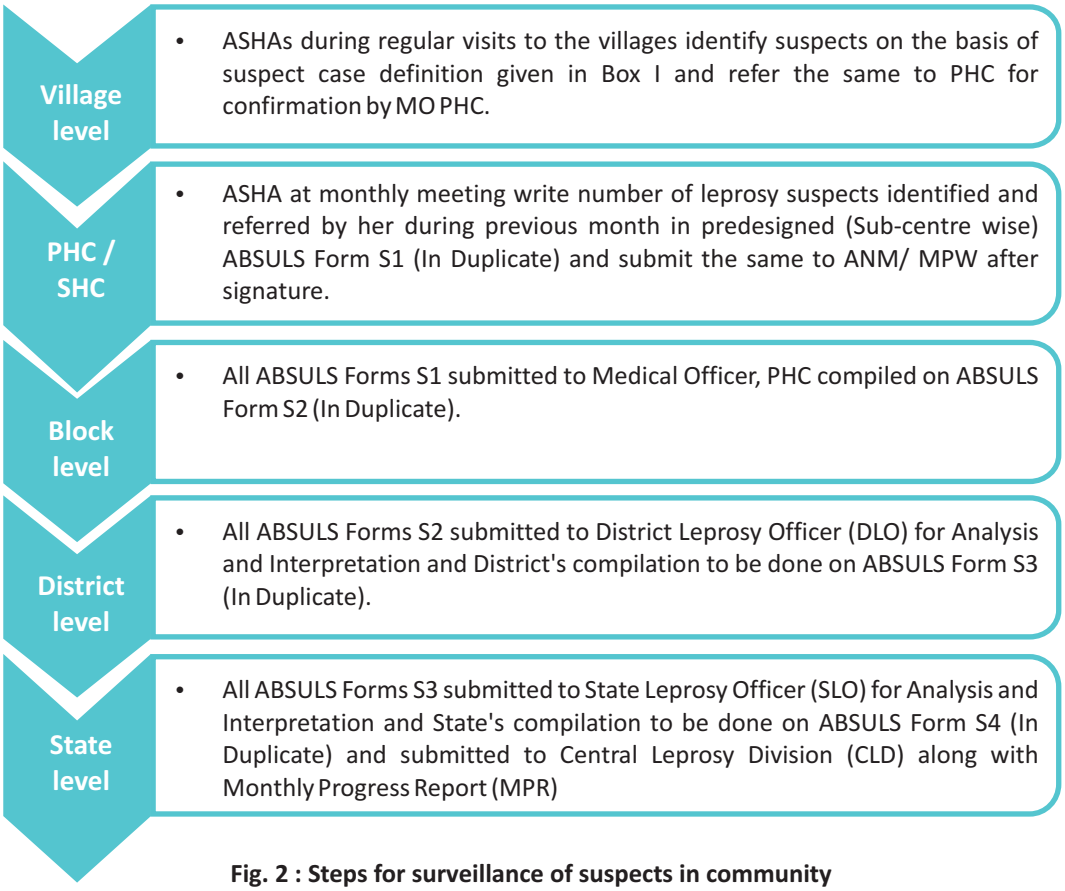

Fig. 2 : Steps for surveillance of suspects in community

The information submitted under ABSULS, is validated by immediate supervisors at each level. Three monitoring formats are designed for different health personnel, which is to be filled during the field visit only. These formats are to be filled in duplicates. One copy of filled in format is submitted as report to immediate reporting officer in hierarchy and one copy of same to be retained with oneself.

In ABSULS M1 format, information to be filled by ANM for each reporting month with signature and date of visit. Information includes name of village

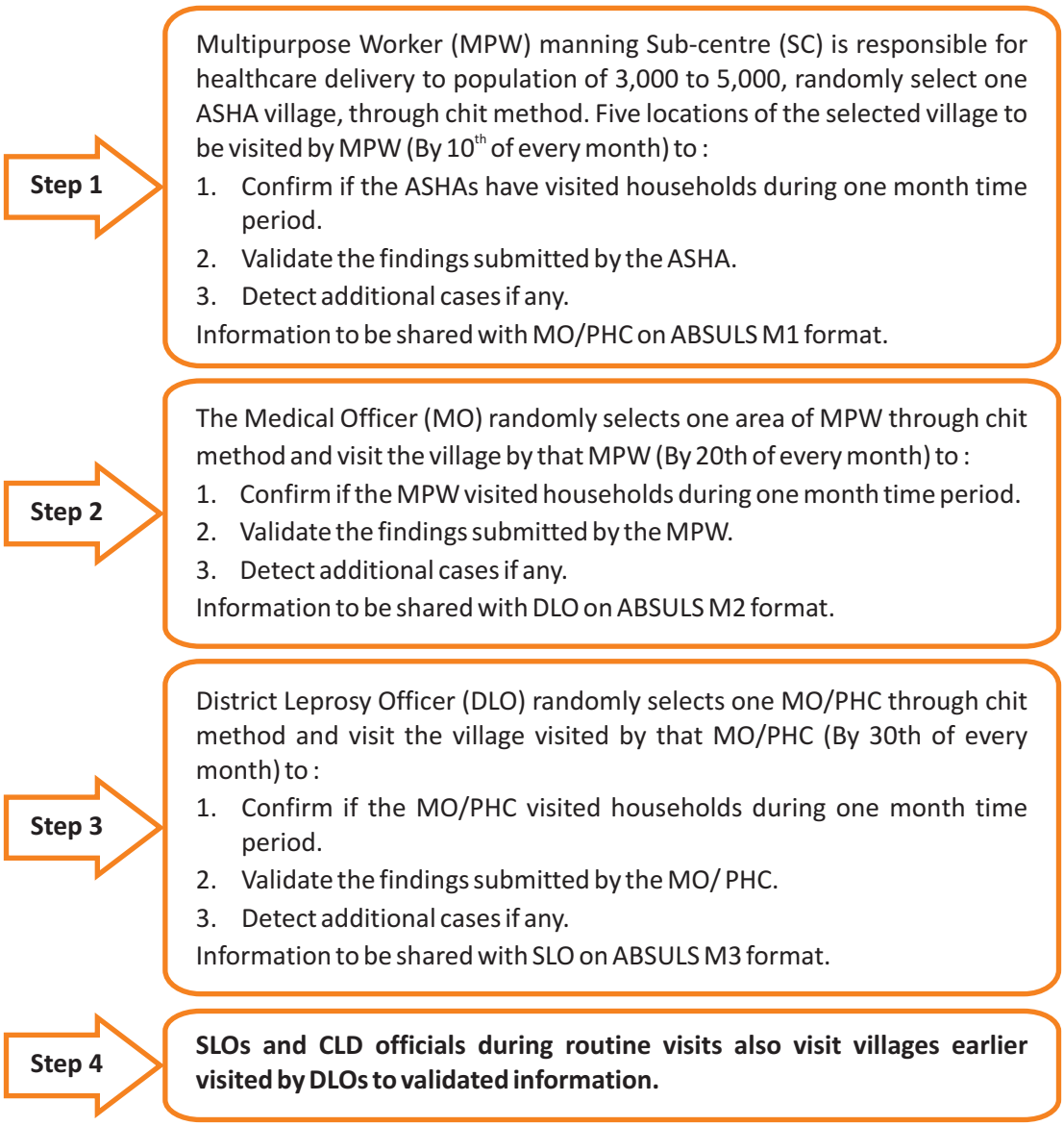

Fig. 3 : Mechanism for monitoring under ABSULS

& ASHA visited by ANM after random selection, status of previous month's visits conducted by ASHA specifically for leprosy in village after confirmation through interview of community members, confirmation if suspects were identified and referred by ASHA to PHCs and additional suspects identified during the visit by ANM.

In ABSULS M2 format, information to be filled by MOPHC for each reporting month with signature and date of visit. Information includes name of village & ANM visited by MOPHC after random selection, status of previous month's visits conducted by ASHA specifically for leprosy in village after confirmation through interview of community members, confirmation if suspects were identified and referred by ASHA to PHCs and additional suspects identified during the visit by MOPHC.

In ABSULS M3 format, information to be filled by DLO for each reporting month with signature and date of visit. Information includes name of village & MOPHC visited by DLO after random selection, status of previous month's visits conducted by ASHA specifically for leprosy in village after confirmation through interview of community members, confirmation if suspects were identified and referred by ASHA to PHCs and additional suspects identified during the visit by DLO.

Mechanism for monitoring under ABSULS : The mechanism to be followed for the monitoring under ABSULS is shown in Fig. 3.

This surveillance system which is meant for suspects only is one of the best surveillance mechanisms for leprosy suspect identification and referral, as it is active surveillance at village level. In addition, this system promises high quality surveillance as data is validated at each level by immediate supervisors (Fig. 4).

After the suspect referral to PHC, Medical officer will be the key person to confirm and classify the leprosy patients and after confirmation the patient information will be entered and registered in the health system as being followed under NLEP. The confirmation process, registration and treatment after confirmation will be followed as per the guidelines given under NLEP without modification.

Suspects who are not confirmed by MO PHC are completely ruled out on examination. The suspect case definition is very broad and has been designed keeping in mind the ability of ASHA to detect. In most of the cases it is easy for MO to

Fig. 4 : Data validation at village level by Central level supervisors

rule out leprosy. In case of any doubt cases are referred at secondary or tertiary care level.

Preparatory activities : The preparatory activities undertaken to establish ABSULS were the following :

1. Sensitization of ASHAs (Fig. 5) in monthly meetings (block level) on suspect case definition as given below :

   Provision of referral slips to ASHAs as given below: The referral slip for each suspect is to be filled in duplicates. One portion of the referral slip is to be retained with the ASHA and one to be provided to suspect. The ASHA must ensure the examination of all suspects identified during the month by MO PHC and crosscheck with the referral slips available with her. (template of referral slip given in BOX II).

The case definition to be followed for suspect identification in the field is :	कुष्ठ रोग के संदेह वाले व्यक्ति की पहचान के लिये केस की परिभाषा इस प्रकार है :
"Any person with discoloration of skin and/or thickened and/or shiny and/or oily skin and/or nodules and/or inability to close eyes and/or ulceration in hands and/or feet and/or clawing of fingers and/or foot drop.	''कोई व्यक्ति जिसकी चमड़ी बदरंग हो और/या चमड़ी में मोटापन हो या चमक अथवा दाने हो और/या आँख बंद करने में कठिनाई हो , कहीं हाथ या पैर में छाले हो और/या उंगलियों में टेढ़ापन या पैर में लकवा हो।
And/or informs tingling and/or numbness in hands and/or feet and/or loss of sensation in palms and/or soles and/or inability to feel cold or hot objects and/or weakness in hands and/or feet for holding/ grasping objects."	और/या हाथ पैरों में झुनझुनी या सुनपन बताता हो और/या जिसकी हथेली या तलवों में सुनपन हो और/या ठंडी या गरम वस्तु का अनुभव न हो पा रहा हो और/या हाथ या पैर में कमजोरी हो जिससे पकड़ कमज़ोर हो या चलने में कठिनाई हो।''

BOX I Suspect case definition under NLEP

Fig. 5 : Picture of ASHA training regarding ABSULS

In addition, before implementation of ABSULS at Pan India level, the pilot of ABSULS was implemented in Amod Taluka of Bharuch District of Gujarat State in June 2017 in target population of 1, 16, 822 and 73 ASHAs. Further, from 1st July, 2017 onward it was introduced in all States / Union Territory (UT)s of India.

National Leprosy Eradication Programme **Suspect referral slip** **(to be retained by ASHA)**	**National Leprosy Eradication Programme** **Suspect referral slip** **(to be provided to Suspect)**
Month/ Year : _____ _____/ _____ _____	**Month/ Year :** _____ _____/ _____ _____
S. No. for month _____	S. No. for month _____
Date: _____	Date: _____
Name of suspect:_____	Name of suspect:_____
Age: _____	Age: _____
Sex (F/M)_____	Sex (F/M)_____
Father's/ Husband's name:_____	Father's/ Husband's name:_____
Address:_____ _____ _____ _____	Address:_____ _____ _____ _____
Mobile No.:_____	Mobile No.:_____
Sub Centre:_____	Sub Centre:_____
Primary Health Centre:_____ _____	Primary Health Centre:_____ _____
Name and signature of ASHA: _____	Name and signature of ASHA: _____

BOX II – Referral slip template

Results

As on 31st March, 2019, ABSULS is successfully implemented in 25 States / UTs wherein capacity building of ASHAs is done to identify suspect leprosy cases. The map of 25 States / UTs is given below (Fig. 6) :

Around 2,40,000 suspect cases of leprosy were identified under ABSULS by ASHA's during 2018-2019.

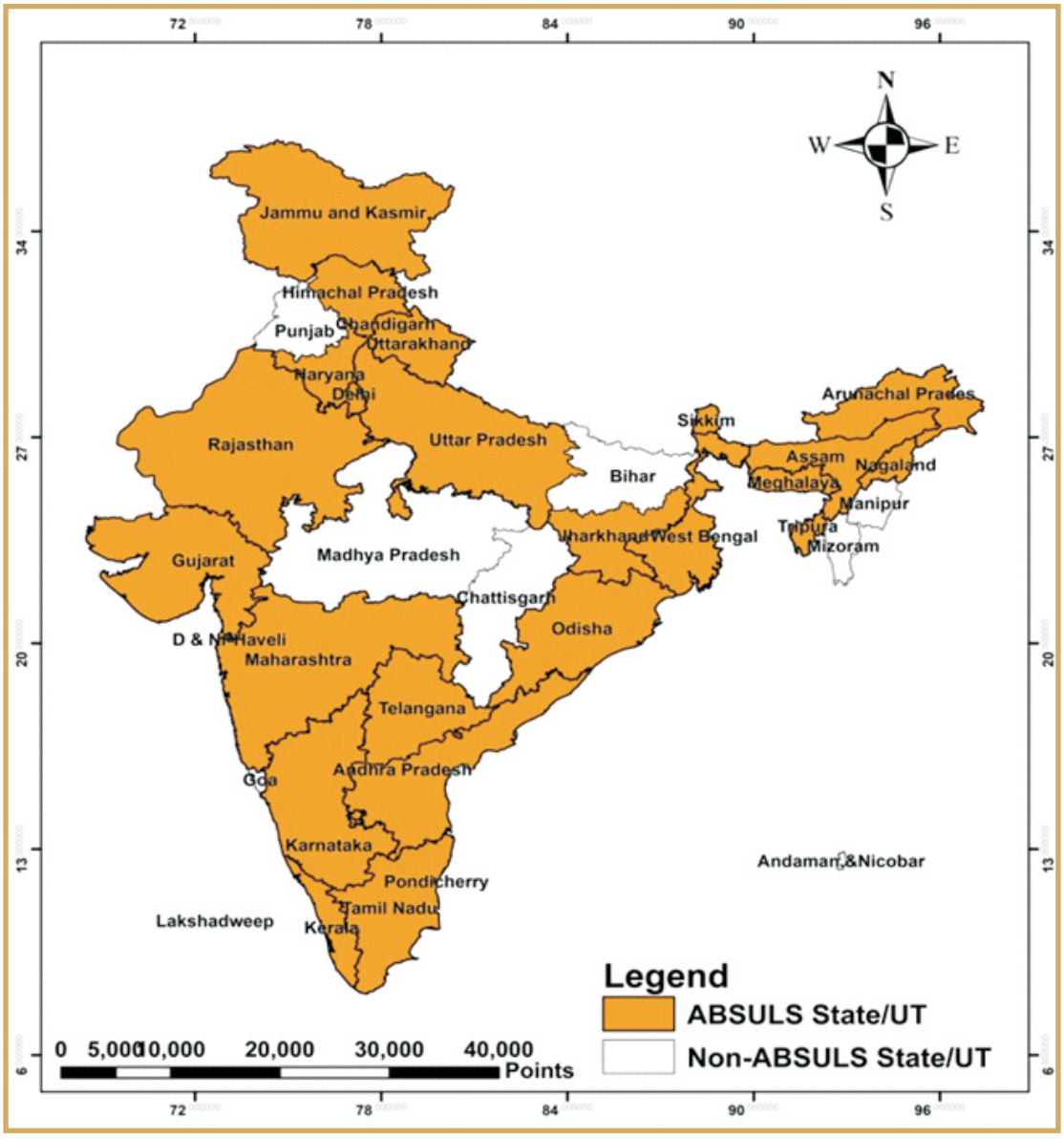

Fig. 6 : Map of States and UTs where ABSULS is implemented

Discussion

In a qualitative study conducted for the assessment of ASHA regarding their roles and responsibilities and factors influencing their performance in seven villages of Wardha, it was found that perception of ASHAs for their job responsibilities is incomplete. As was found in previous studies (Scott et al 2010, Saprii et al 2015). ASHAs were interested more in provision of Maternal and Child Health (MCH) services due to higher incentives and concurrent supervision & encouragement by PHC staffs. Majority of ASHAs were not aware about their roles and responsibilities regarding various National programs and focused on targets pertaining to immunization coverage and institutional delivery. There are several factors which may be responsible for ignorance of their duty towards various health programme services, such as lack of capacity building and orientation, excessive workload, poor incentives etc (Guha et al 2018).

In another descriptive (exploratory) study conducted in two administrative blocks of Manipur State, it was found that the Janani Suraksha Yojana (JSY) was the important scheme which build their relationship with communities & health system and good performance under same is essential. All the ASHAs studied also explained that they are dependent on JSY scheme, as this scheme gives them the good amount of incentives as compared to other health schemes (Saprii et al 2015).

In another assessment of ASHA programme conducted in Karnataka State wherein 300 ASHAs from 300 villages of 12 taluks of 3 districts were interviewed it was found that, they carry out tasks assigned to them with sensibly high functionality. However, in order to improve their performance further, the capacity building through skill based trainings/ orientation especially for communicable diseases and other health conditions was suggested. In addition, the concurrent mentoring of ASHAs through taluk and district team, to be performed to enable them for better utilisation of their powers (Fathima et al 2015).

In respect to Leprosy disease transmission, in an original article published on Leprosy Case Detection Campaign (LCDC) by Kumar et al (2019), it was explained that in order to interrupt the transmission of the leprosy disease agent in the community, it is essential to go for early case detection and treatment. In view of same, three-pronged strategy for early detection of leprosy cases in the community has been introduced under NLEP during 2016. Out of which, LCDC which is designed for high endemic districts of country, as an approach and novel concept has been able to serve its main purpose of its introduction i.e., detection of leprosy cases in early stage without onset of disability which was evident by the reduction of G2D % among new cases detected from 4.61% (2014–15) to 3.61% (2017–18).

Further, the selection of high endemic districts for LCDC implementation is dynamic process under NLEP, where districts are selected on the basis of percentage of G2D which is an indicator of delayed detection of leprosy cases and hidden cases in the community. As an effect of quality implementation of LCDC in high endemic districts of the country, the number of districts eligible for LCDC is likely to reduce soon & further to the level of zero.

Hence, ABSULS with involvement of ASHAs, a representative from community, will ultimately take care of effective routine surveillance system of leprosy cases under NLEP. ASHA is already accountable for health of the community and has to work for the disease control programmes. Under ABSULS, they have been assigned to perform the duty of reporting number of suspects identified and referred during the month in

writing to the supervisors. This reporting is verified by supervisory staff at the level of sub centre, PHC and district on random basis. This is ensuring effective performance of duty by ASHAs related to early leprosy case detection. This has led to early leprosy case detection as equally important activity as providing MCH or other services.

As this active surveillance is being carried out at the level of community itself and validation even of nil case reporting is being carried out by health system functionaries at various levels, effective implementation of ABSULS will lead to interruption of transmission of disease in the community and take India to the leprosy free status.

Conclusions and way forward:

- ABSULS is high quality surveillance system which will enhance routine suspect identification; referral and confirmation.
- The quality implementation of ABSULS will lead to decrease in G2D in short span and decrease in prevalence further.
- A quality nationwide coverage of ABSULS will ultimately lead India to achieve leprosy free status by the year 2030.

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