



ORIGINAL RESEARCH PAPER

Community Medicine

INTEGRATED DISEASE SURVEILLANCE PROGRAMME (IDSP): A SUCCESS OR A FAILURE.

KEY WORDS: IDSP, surveillance, integration, training and retraining.

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ABSTRACT

Integrated Disease Surveillance Programme (IDSP) is a decentralized, state based surveillance programme started in 2004 as project with funding from world bank. It is intended to detect early warning signals of impending outbreaks. It helps in initiating an effective response to an outbreak in a timely manner. District level is the focus for integrating surveillance functions. Rather than using scarce resources to maintain vertical activities, resources are combined to collect information from a single focal point at each level. Several activities are combined into one integral activity to take advantage of similar surveillance functions, skills, resources and target populations. Integrated disease surveillance programme (IDSP) needs strengthening as per lessons learnt from COVID-19 pandemic. Health care workers at various levels need capacity building by training and retraining at several times. Public private partnership would also be an important step in improving performance under IDSP. Moreover to integrate COVID-19 surveillance within existing IDSP surveillance mechanism is demand of every hour.

INTRODUCTION

Integrated Disease Surveillance Programme (IDSP) is a decentralized, state based surveillance programme started in 2004 as project with funding from world bank.⁽¹⁾ It is intended to detect early warning signals of impending outbreaks. It helps in initiating an effective response to an outbreak in a timely manner. Also it provides essential data to monitor progress of on-going disease control programmes and help allocate health resources more efficiently. The frequent occurrence of epidemics even after launching of the IDSP, was an indication toward inadequacy of the surveillance system and/or preparedness to identify and control outbreaks in a timely manner.⁽¹⁻⁴⁾

Main objective of IDSP is to establish a decentralized district-based system of surveillance for communicable diseases and non-communicable diseases so that timely and effective public health actions can be initiated. Also it aims to integrate existing surveillance activities so as to avoid duplication of information and to facilitate sharing of information across all disease control programmes so that valid data are available for decision making.⁽¹⁾

Surveillance is defined as the ongoing systematic collection, analysis and interpretation of health data essential to planning, implementation and evaluation of public health practice closely integrated with timely dissemination of these data to those who need to know.⁽¹⁾

The final link in the surveillance chain is the application of these data to prevention and control.

Uses of Surveillance:⁽¹⁾

1. Recognizes cases or cluster of cases to trigger interventions to prevent transmission or reduce morbidity and mortality.
2. Estimates prevalence of health problem in a community.
3. Assesses public health impact of health events and determine their trends.
4. Detects disease epidemics.
5. Demonstrates need for public health intervention programs and resources and allocate resources during public health planning.
6. Monitors effectiveness of prevention and control measures.
7. Identifies high-risk groups or geographical areas to target interventions and guide analytic studies.
8. Develops hypothesis that lead to analytic studies about risk factors for disease causation and progression.

Six key elements:⁽¹⁾

1. Detection and notification of health event.
2. Investigation and confirmation (epidemiological, clinical, laboratory).
3. Collection of data.
4. Analysis and interpretation of data.
5. Feed back and dissemination of results.
6. Response - actions for prevention and control.

Levels Where Surveillance Activities Are Performed:⁽⁹⁾

ACTIVITIES	PERIPHERY	DISTRICT	STATE
Detection and notification of cases	+++	++	-
Collection and consolidation of data	+	+++	+++
Analysis and Interpretation	+	+++	+++
Investigation and confirmation	+++	+++	+
Feed Back	+	+++	++
Dissemination	+	++	++
Action	++	+++	+

Integration Under IDSP:⁽⁹⁾

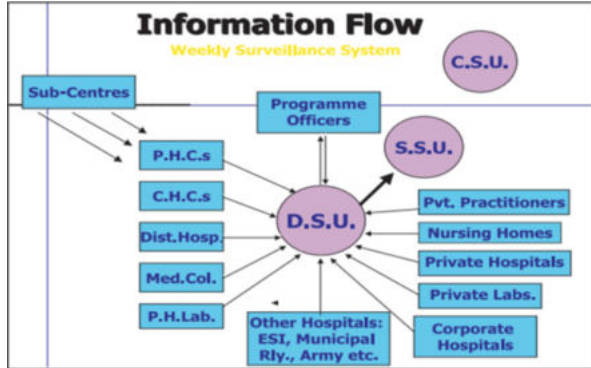
District level is the focus for integrating surveillance functions. Rather than using scarce resources to maintain vertical activities, resources are combined to collect information from a single focal point at each level. Several activities are combined into one integral activity to take advantage of similar surveillance functions, skills, resources and target populations.

It integrates both public and private sector by involving the private practitioners, private hospitals, private labs, NGOs, etc and also has emphasis on community participation. The IDSP integrates communicable and non-communicable diseases. There is integration of both rural and urban health systems. Also there is an integration with the medical colleges (both private and public) to improve the disease surveillance especially through better coverage.

Reporting Under IDSP:⁽¹⁾

1. Weekly basis [monday-sunday] through S,P,L forms and immedietly in imminent outbreaks.
2. Reports should be checked for completeness and regularity.
3. Zero reporting is must if there is no case.
4. Daily reports are necessary once an outbreak has been

identified so that the situation can be monitored.
 5. After the outbreak has subsided, weekly reports should be continued for at least double the maximum incubation period of the disease.



Information flow:⁽¹⁾

SWOT ANALYSIS:

Strength:

1. Functional integration of surveillance components of vertical programmes - avoids duplication of reports.
2. Reporting from various levels and institutions of suspect, probable and confirmed cases.⁽⁶⁾
3. Separate reporting formats for different levels-avoid confusion.
4. IHIP android app for s-form data entry.
5. Streamlined flow of funds to the district-separate budget.
6. Budget for training and retraining.
7. Separate format for reporting clustering of Influenza like illness & Pneumonia.⁽¹⁾
8. Involvement of government health infrastructure up to sub centre level.
9. Strong IT system for data flow and management.
10. Video conferencing/zoom meetings for training of ANM/CHO facility functional in many states.
11. IDSP portal became an example of a national health information network.
12. Strong governance structure for programme in form of surveillance committee at each level.
13. Dedicated training consultants within the structure of programme upto state level.

Weakness:

1. Poor records generation due to overloaded clinicians and overworked peripheral staff.
2. Incomplete and irregular weekly reports, concept of nil reporting and routine reporting is difficult for peripheral staff to understand,⁽⁷⁾ there is time lag of 8-10 days for data collection and submission to IDSP portal due to various reasons.
3. Case definitions are rarely used at periphery due to lack of knowledge regarding exact definitions and failure to write diagnosis in the OPD slip/IPD file and finally in the registers, based on those definitions.^(6,7)
4. Moreover interrupted internet services also delays reporting.
5. There are less laboratories available locally and the limited laboratory capacity of laboratories at all levels compromise case and outbreak confirmation. Moreover the stool sample processing is weakest at periphery.⁽⁷⁾
6. Also availability of transport media, trained staff and rapid diagnostic tests at periphery is lacking.⁽⁶⁾
7. Staff vacancies remain a concern due to transfer or retirement of trained staff. There is contractual staff at many places where job insecurity hinders the performance.⁽⁹⁾
8. There is a general tendency to under report the total number of outbreaks due to fear of action from the higher authorities.
9. Reporting formats donot include gender information and information regarding non communicable diseases.⁽⁶⁾

Oppurtunities:

1. Maximise use of ICT innovations [mhealth and ehealth]to conduct public health surveillance at block and village level.
2. Commitment for compliance of surveillance and response core capacity requirement of IHR 2005.
3. Distance education and web based courses for training paramedical staff.
4. Non-communicable disease, reproductive and child health, occupational and environmental health and injury could be integrated into public health surveillance.
5. Private sector participation in disease surveillance is still minimal thus private- public -participation will create a big scope for improvement.⁽⁵⁾

Threats:

1. India is a global hot spot for emergence and re-emergence of zoonotic diseases.
2. There is threat of delayed detection of outbreak or being missed.
3. Variations of data generation from different states limit use of data for policy decisions.
4. Shrinking government budget for IDSP.
5. Change in government and political commitment.
6. Overdependence on contractual human resource.

CONCLUSION

Integrated disease surveillance programme (IDSP) needs strengthening as per lessons learnt from COVID-19 pandemic. Health care workers at various levels need capacity building by training and retraining at several times and also evaluation of quality of trainings.⁽⁷⁾ Public private partership would also be an important step in improving performance under IDSP.⁽⁵⁾ Moreover to integrate COVID-19 surveillance within existing IDSP surveillance mechanism is demand of every hour.⁽⁶⁾

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