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Original Research Article

Evaluation of Integrated Childhood Development Services (ICDS) program implementation in an urban slum of Delhi, India

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ABSTRACT

Background: The Integrated Childhood Development Services (ICDS) scheme is India's foremost program imparting comprehensive and cost-effective services to meet the multi-dimensional needs of children. Following a populist approach, the program has now increased its umbrella coverage to reproductive age, pregnant and lactating women. The impact of such development and existing program performance remain debatable due to the paucity of evaluation research.
Methods: A mix-methods descriptive case study was done using adapted ICDS monitoring tool in a pre-identified slum. The slum was purposely chosen for its intensive habitation of the poor and marginalized population. Primary data were collected through personalized interviews with program staff, health functionaries, and community representatives. Secondary data were collected from records available at Anganwadi centre (AWC). The data were triangulated and analyzed with results being expressed in narrative, simple proportions and percentages.
Results: The mean coverage of ICDS services was 58.3%. Maximum coverage recorded for Supplementary Nutrition (SN) and minimal for Nutrition and Health Education (NHE). SN, immunization, Pre-school education (PSE) and growth monitoring (0-3 years) were regularly held. Maternal and child health services were unsatisfactory. Poor community perception reported for AWC and ICDS services with exception of SN.
Conclusions: Present case study unveils poor infrastructure, coverage and community participation for ICDS services. Immunisation and referral networking is often dysfunctional reflecting the need for enhanced intersectoral cooperation. Adapted tools could serve as an effective strategy for evaluating and facilitating need-based improvements.

Keywords: Slum, Anganwadi, Delhi, Child development, Evaluation, ICDS, NIPCCD

INTRODUCTION

The Integrated Childhood Development Services (ICDS) program symbolises India's commitment to breaking the vicious cycle of child malnutrition, impaired development, morbidity, and mortality. ICDS provides a package of integrated services viz. Supplementary nutrition (SN), Immunization, health check-up, referral services and Non-formal pre-school education (NFPSE) delivered by the Anganwadi workers (AWW) and helpers at the designated Anganwadi centres (AWCs).[1]

Evaluation studies have been conducted in the past to ascertain ground realities, relevance, performance, outcome and impact of ICDS scheme. Past research on ICDS categorized factors related to poor program implementation in broadly three categories: (1) poor resource allocation (2) poor governance and (3)

programmatic deficiencies.[1] A recent evaluation conducted by planning commission reported poor coverage (41%) and quality of ICDS services. It found that AWWs were mostly overburdened, underpaid and unskilled affecting the overall effectiveness of the scheme.[2] Poor coverage of ICDS services has been reported across the country ranging across different services provisions viz: Health referrals (8.3-30%), NFPSE (20-40%), SN (48.3-60.7%) and Immunization (10-65%).[3-5]

Program monitoring provides us with useful information regarding the progress of a certain program or activity. It enables the routine assessment and review of various shortcomings for implementing corrective actions in the scheme for delivering the intended benefits. The present study was carried out by applying prescribed standard monitoring tools for assessing implementation of ICDS program in a Delhi slum.

METHODS

A descriptive case study using mix-methods approach. Study area: Anganwadi centre (AWC) located in an urban slum of the central district, Delhi, India. The AWC was co-located with a health centre functioning under Directorate of Health Services, Delhi. Study population: Anganwadi staff (AWW and AW helper) and ICDS Beneficiaries, adjunct health staff and the community representatives.

Guidelines and standard proforma for monitoring and supervision of ICDS Projects specific to Anganwadi workers developed by the National Institute of Public Cooperation and Child Development (NIPCDD), New Delhi, India, were used for data collection and evaluation.[6] To have a comprehensive evaluation of ICDS services provided at the AWC, qualitative research method (In-depth interviews) were done.

Socio-demographic profile of the population being catered by the Anganwadi centre (AWC) was collected from the records available at the AWC. The ICDS services were directly observed by the investigator on random data days on monthly basis for a total period of three months. Anganwadi worker and helper were interviewed along with a review of records using the prescribed proforma. Beneficiaries and health staffs were also interviewed privately using interview guide for their perceived awareness of availability and quality of ICDS services.

Following standard program evaluation framework, the information was collected for: (I) Inputs-i.e. infrastructure of AWCs and baseline characteristics of AWWs; (II) Process-i.e. provision of various ICDS services to the beneficiaries; and (III) Output-i.e. coverage of services provided like: SN, NFPSE, Growth monitoring, Nutrition and health education (NHE), Immunization and Referral services. Information was also obtained regarding utilisation of numerous services and issues related to the program implementation from AWW. The proforma included questions on various aspects of the functioning of AWC like: Immunizations, Prophylaxis against blindness and anaemia, NHE, SN, Growth monitoring and Referral services. Primary data were collected by interviewing AWW, Anganwadi helpers, health staff, link workers, beneficiaries and community leaders. Collected data were triangulated with investigator observation and interview records for improved accuracy of assessment. Secondary data were collected for variables such as: Socio-demographic profile, Infrastructure, Nutrition, Services and Logistics from available records.

Data analysis

The data were entered and analyzed using MS-Excel software. The data were categorized and expressed in simple proportions and percentages based on character and the review of responses. Qualitative data obtained from interviews were transcripted and collated to deliver narrative content analysis.

The objective and procedure of the study were thoroughly explained and prior informed consents were taken from the study participants. The option to opt out of the study was kept open without any clause. The data were kept confidential and were used for academic research and publication purpose only. Ethical permission was taken from Institutional Ethical Review Board.

RESULTS

The total population of the study area (slum) according to the latest record available was 1061. The health record review of the area suggested that there was a high burden of malnutrition, infectious and vector-borne diseases among the slum dwellers. All the ICDS staff positions were full and all the functionaries met the eligibility criterion for the position being held. On record evaluation, it was found that mean coverage of ICDS services was only 58.3%, with maximum coverage recorded for 0-6 months age group infants (85.7%) and abysmally minimum for 15-45 years reproductive female group (14.19%). Services like-NFPSE, NHE, and Health checkups had poor coverage except for SN services having higher coverage than expected levels (Table 1).

Individual assessment of independent activities revealed that only SN, Immunization, NFPSE, and Growth monitoring (0-3 years) activities were being held regularly. It was noticed that NHE and home visits were not being conducted by the conducted by the AWW, despite her qualification and training.

Table 1: Coverage assessment of ICDS services provided through AWC.

Service	Category	Total beneficiaries	Beneficiaries covered	Expected coverage* (%)
Non- formal pre-school education enrolment (NFPSE)	Children between 3-6 years	59	25 (42.3%)	50 %
Supplementary nutrition (SN)	Children between 6 mon.-6 years	139	75 (53.9%)	40 %
	Lactating mothers	11	7 (63.6%)	40 %
	Pregnant women	10	6 (60%)	40 %
Nutrition and health education (NHE)	15-45 years females	324	46 (14.1%)	100 %
Health check-ups and Referrals	Children 0-6 years	153	57 (37.2%)	100 %
	Lactating mothers	11	3 (27.2%)	40 %
	Pregnant women	10	4 (40%)	40 %

*As estimated in NIPCCD guidelines.[2]

Notably, AWW was untrained in the Integrated Management of Neonatal and Childhood Illnesses (IMNCI). Her technical knowledge was poor especially for SN, Immunization, NHE, blindness prophylaxis and referral services. She had fair recall of calorie norms for each beneficiary category but was oblivious to protein norms and money allocations. She had fair knowledge of types and indications of available drugs with some exceptions of gentian violet paint and benzoyl benzoate solution.

Table 2: Assessment of AWC infrastructure in terms of resource availability.

Available	Not available
Pucca building	Sign board displayed
Within community reach	Cross ventilation
Electricity connection	Adequate lighting
Electrical points above 5 feet	Separate kitchen
Working fan	Child-friendly toilet
Piped water supply	Sitting arrangement
Drinking water	Adequate space (indoor)
Sanitary toilet	Adequate space (outdoor)
Government building	Creche facility

AWW and Helper elicited various problems in delivering ICDS services like: Poor infrastructure, salary, community support and logistic supply with special mention of excessive record maintenance work. Site inspection unveiled that many important registers and records were unavailable for e.g.: ANC, Referral, Malnutrition, Family planning, Mahila-manual, Home visit, and beneficiary attendance register. Some registers were poorly maintained like: Stock, Medicine Distribution, and Consumable register. Infrastructure assessment reported Ill- maintained building (condemnable), Inadeqaute space, Poor seating arrangement, Inadequate lighting and ventilation and lack of a child-friendly toilet (Table 2).

Inventory check suggested deficient logistic supplies and their utilization. Prime deficiencies noted were non-availability of: Weighing scale, IEC materials, Syp. Paracetamol, Vitamin A supplements, and Bandages.

Supplementary nutrition services provided at AWC (Table 3) were satisfactory with good utilization rates, especially among children and pregnant women (92%, 83.3%) in terms of both quantity and quality. Discernably utilization rates among lactating mothers (57.1%) were found to be poor. Beneficiary interviews showed excellent quality, quantity and acceptability of SN services without any reported interruption in past 6 months. The quality of SN service was regularly monitored through joint inspections by ICDS staff and community representatives.

Table 3: Status of supplementary nutrition (SN) services available at AWC.

Category	Coverage status*
Children of 6 months-6 years	Satisfactory (92%)
Pregnant mothers	Satisfactory (83.3%)
Lactating mothers	Unsatisfactory (57.1%)

*Coverage labelled based on expected coverage (NIPCCD).[2]

Maternal health services were unsatisfactory as majority pregnant women and lactating mothers weren't covered in view of irregular NHE. However, distribution of free IFA tablets encouraged beneficiaries to attend AWC occasionally.

Adolescent health services were satisfactory with good utilization rates (86.9%), supplementary Rajiv Gandhi scheme for empowerment of adolescent girls (RGSEAG)

also known as SABLA scheme. However, nutrition, health and education days (NHED) were never organized.

Child health services were unsatisfactory with poor utilization (28.7%) rates, additionally non-availability of equipment like: Weighing scales, Shakir's tape etc. discouraged beneficiaries. Health education and referral services were improper inlieu of dysfunctional relationship between AWC and health center staff.

NFPSE services were unsatisfactory, as reflected by the poor attendance (64%), lack of parental involvement and deficient educational material. Despite NFPSE training to AWW, lack of community support and poor infrastructure proved bottlenecks in service implementation.

Immunization services were satisfactory with good coverage (92.6%) and were being conducted through health center's collaboration. However, utilisation rates were poor due to inadequate and irregular mobilization by AWC staff.

Referral services were regular and directed to the nearby health center for further action. It was noted that though record maintenance was proper, non issual of referral slips led to poor follow-up of the cases.

Community perception regarding AWC functioning was unsatisfactory and only SN service having favorable perception. Community outreach and participation were poor due to deficient rapport building measure.

DISCUSSION

Mean coverage of all ICDS services was 58.3%, with the highest coverage observed for SN and lowest for NHE. Detailed assessment of services revealed that only SN, immunization, NFPSE and growth monitoring (0-3 years) services were being held regularly, NHE and home visits were not being done. Individualized assessment of AWW's knowledge and skills presented a mixed picture. Though she understood drugs and indications but due to lack of proper training e.g.: IMNCI she wasn't actively dispensing drugs.

Despite wide lacunae in service coverage, SN services graded satisfactory with good utilization rates in children and pregnant women. However quality assessment of SN is equally essential to ICDS evaluation as demonstrated by Pratinidhi et at AWC in Pune city where SN had a below average nutritive value of 213 calories and 5.1 gms protein as compared to recommended values.[7] Despite recommendation quality assessment of SN wasn't done in present project due to resource constraints. Although its important but overemphasis on SN as observed in the past evaluation studies, neglects and defeats the purpose of integrated service provision under ICDS.[2]

In the present study, Maternal and Child health (MCH) services were unsatisfactory with inadequate NHE coverage to pregnant and lactating women. Interestingly adolescent health services were promising with good utilization rates. This achievement is possibly owing to focused and resourceful approaches under supplementary WIFS and SABLA schemes.

NFPSE services weren't up to the mark due to poor awareness, lack of parental involvement and deficient NFPSE material. Immunization and referral services were fair with liaisoning of adjunct health center. However a need for further improvement with existing resources like: human resource and logistics was present suggesting missed opportunities.

The record maintenance was not being done uniformly and irregular growth charting led to the poor nutritional assessment of the children. Inadequacy in the training of AWWs and poor and irregular monitoring led to under and/or mis-utilisation of existing resources as reported in past evaluation surveys.[8]

Present study largely conforms to the findings of previous evaluation surveys.[2,5] However, the present study takes a different approach of individualized AWC assessment by employing qualitative research techniques for comprehensive evaluation. The AWC under study grossly lacked infrastructural inventory provisions for the expected services.

Operation in an unsuitable building with an attached health center posed a considerable health hazard to beneficiaries especially children. Improper provisions for safe drinking water, toilets, teaching aids, weighing, and adequate play space at the centre deterred beneficiaries.[9]

Salient problems impending ICDS services were: Poor infrastructure, Poor staff incentives, Poor logistics, Unnecessary record maintenance, and Poor community support.

Optimal program monitoring is often tedious in wake of insufficient resources, therefore, it is pertinent to develop simple effective tools for performance appraisal and quality assessment of ICDS services. It is worthwhile to note that increase in financial allocation to the ICDS programme and high utilization rate does not always imply or translate into efficient resource utilization.[10,11]

Lack of community ownership continues to plague various national programs. Ineffective utilization leads to lacklustre program performance due to non-transparency and deficient support systems. It is, therefore, a high time to rejuvenate and strengthen ICDS program by imparting regular training, identifying alternative financial and monitoring options and fostering better community participation.[12,13]

CONCLUSION

Lack of community ownership continues to plague various national programs. Ineffective utilization reflects lackluster program performance owing to non-transparency and deficient support systems. It is a high time to ponder over strategies for course correction to ICDS program notably: Regular training, identifying alternate financing and monitoring options and Securing improved community participation.[12,13]

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