ICDS-CAS EXPAND NUTRITIONAL ACTIVITIES IN ANGANWADI CENTRE WITH SOME CONFINES: "A ANALYSIS OF INDIAN STATES"

Abhijit Mishra*

ABSTRACT

Integrated Child Development Service (ICDS) is one of the institutions which service provided by women and service such as Anganwadi Workers (AWW), Lady Supervisor are taking most important role in such nutrition programme. It is one of the women related programmes. ICDS programme recently use the computer-based Activities in the various sectors. The name of such programme is ICDS-CAS. This software application increases the delivery services which is more effective. This software creates better environment monitoring and simplifies the decision making. Through SMS alert to reach beneficiaries door to door. This software application is the user friendly and multi-task system. It supports four key characters in Anganwadi Centre which are beneficiaries, AWW, Supervisor (ICDS) and ICDS officer in different sectors. We collect data of various states those are used ICDS-CAS use in the practical field. The source of these data http://icds-wcd.nic.in/nnm/NNM-Web-Contents/LEFT-MENU/ICT-RTM/ICDS-CAS _ Dashboard and https://data.gov.in. Software may helpful for the AWW and lady supervisor because the it will helpful to easier to her job. It helpful for data collection of AWW. Such data are auto generated and store it for a long period. And from these data are once uploaded it will helpful to supervisor to find the centre wise service gap. This software really upsurges and boost the power of women. But the problem is the implementation of this technology. So, it is obviously a magnificent technology not only increase the women empower but it also improves the society welfare.

___

___

Introduction

Women empowerment is one of the important issues in recent times. Because women development intensified social upsurge. The famous quotation about women "Educate a man you educate one person but educate a woman you educate whole family". Relation between women empowerment and advance technology is very Interesting in context of efficiency. Because women face a big problem in traveling remote place traveling two or three place within a day. So advance technology is the key tools to achieving better performance to women working in various sectors in the economy without travelling anywhere.

One of the most important public institution concerns about the women and children is Integrated Child Development Services. It is one of the institutions which service provided by women and service such as Anganwadi Workers (AWW), Lady Supervisor are taking most important role in such nutrition programme. And the beneficiaries are also Women.

ICDS programme recently use the computer-based Activities in the various sectors. The name of such programme is ICDS-CAS. This software application increases the delivery services which is more effective. This software creates better environment monitoring and simplifies the decision making. Through SMS alert to reach beneficiaries door to door. This software application is the user friendly and multi-task system. It supports four key characters in Anganwadi Centre which are beneficiaries, AWW, Supervisor (ICDS) and ICDS officer in different sectors.

---

*   Research Scholar, Burdwan University, West Bengal, India.

Through SMS alerts beneficiaries identify the children are suffer from malnutrition provides some additional healthcare advice for their children. And other services like immunisation, health check-ups and referrals, are also design in such software application.

AWW are the main pillar of whole system she prepared eight modules time to time. Which are i) Household management ii) Home visit scheduler, iii) Daily nutrition, iv) Growth monitoring, v) Take home rations, vi) Due list, vii) AWC management, viii) Monthly Progress Report (MPR). Which is shown in Figure-4(Appendix).

This module is guide for home visit, counselling, and follow-up. It is very essential to follow up the time periods of the pregnancy and child early life-span. If any awkward situation of child and mother than software identify the danger sign that means the home visit of AWW and counselling is required. This software makes auto household list, and home visit schedule for AWW.

This software application also provides the various health and nutrition advice though videos. The software autogenerate the due list for vaccination date increases the target orientation. Where growth monitoring module is providing the auto calculate the nutritional status of the children. It also plots it grow chart if anthropometric information is given.

Supervisor in ICDS is responsible for a huger number of centres. Software based application is more helpful for her. She can recognize the efficient ICDS and Inefficient ICDS in respect of their performance indicators. It also memorised the supervisor visit, and data also provide when monthly sector meeting is happened.

ICDS-CAS also helpful for the various official because it easily combines mobile data in the computer through the web. And easily create the web-based dashboards, making real-time information available on service delivery and nutritional status of block, districts and national levels. Which is shown in the Figure-4 (Appendix).

The question is modern advance technology how much empower the women? Because the gap between software data and real-life data. Sometimes ill-literacy, low level of computer knowledge, will break down women development. Which discourage empowerment of women.

Sometimes invisible inefficiency increases due to use of computer-based software. Without visible appearance any one misused it. And given a wrong information about this programme. These are the big problem when you concern about the nutrition of child and women.

The modern and advance technology empower women with some limitation. Because invisibility increase the cost of wastage. The main aim of this nutrition program is reduction of malnutrition or IMR (Infant Mortality Rate). Without visible appearance this programme cannot be fulfilled its destination.

This paper is divided into various parts. Firstly, we have already discussed Introduction part in section-I. Second part we illustrate data description on the section-II. Next, we consider the research methodology on section-III. We discuss empirical findings on section-IV. Last of all we conclude conclusion in section-V.

Data Interpretations

We collect data from 20 state those are used ICDS-CAS use in the practical field. The source of these   data   http://icds-wcd.nic.in/nnm/NNM-Web-Contents/LEFT-MENU/ICT-RTM/ICDS-CAS   _ Dashboard and https://data.gov.in. In figure-1, deep blue line indicates the greater number of ICDS centres are accustom to the advance technology.

Table 1

Stats	Use ICDS-CAS	Use Mobile in ICDS-CAS	Utilisation of ICDS_CAS	Percentage of Agriculture	Percentage of Rural Population
Mean	18053.37	25866.32	195.21	12522.93	59.48
Median	7591	11286	102.86	7019.67	69.77
Variance	7.33e+08	1.14e+09	76334.2	7.31e+08	642.24

Table -1 shows that the state wise mean, median and also evaluate the variance. Difference between mean and median is smaller in the percentage of rural population which indicate the lower variance. But others variables like use of mobile in ICDS-CAS and percentage of agriculture. Because more production of agriculture may somehow link in mobile use of ICDS-CAS. So, such data shows the huge inter-states difference.

Figure-1, introduce the state wise no. of ICDS centre used such technology. Maharashtra is a State where 106400 Number of ICDS Centre are habituate use it Such new technology. The 2nd positions hold in Andhra Pradesh Where 55560 number of ICDS Centres are trained of such web-based technology. And the 3rd position goes to the Uttar Pradesh, the total number of ICDS centre use such web-based technologies and these states are also utilised the advantage
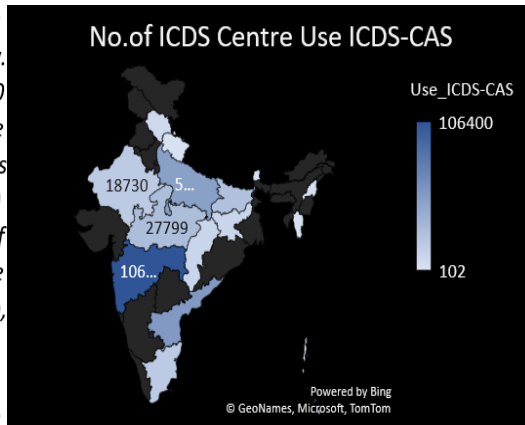

Figure-1 (Source: -https://data.gov.in)

Such web-based technique. Now a days it is very essential especially for women, because staying one time point, she achieves more ICDS centre.

Without use of mobile phone in the beneficiaries' web-based programme will not be successful. Those states have a greater number of peoples are use mobile phone then these states are utilised more in the benefit of ICDS-CAS.
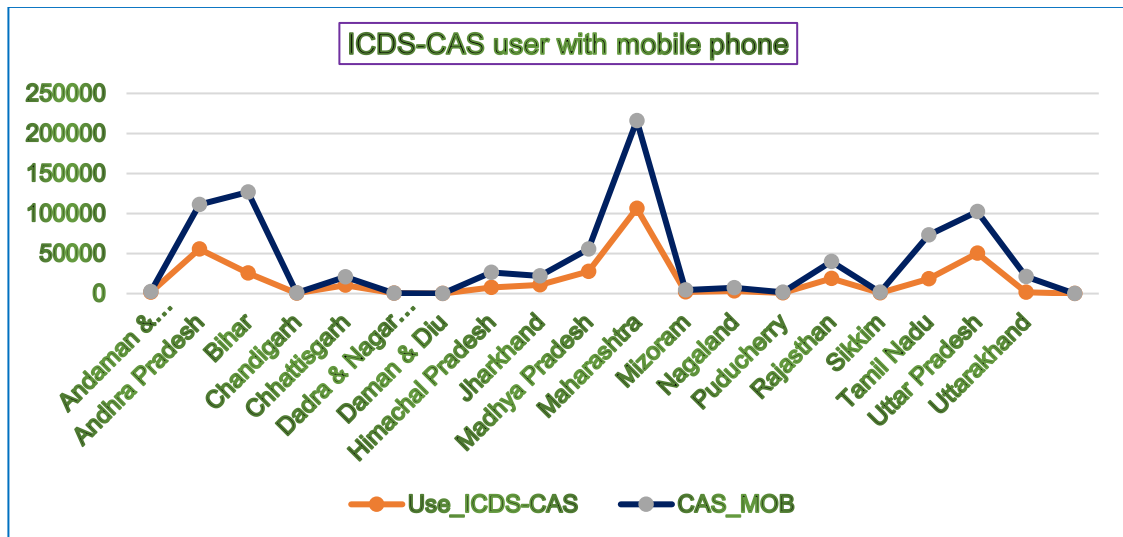

Figure 2

(Source: https://data.gov.in)

Figure-2, shows that almost every state where use of ICDS-CAS is more than the mobile user ICDS centre. But Maharashtra, Bihar, Andhra Pradesh, Uttar Pradesh and Tamil Nadu give the higher difference between the ICDS-CAS with mobile user and ICDS-CAS without use of mobile. Total number of mobile uses in Maharashtra is 109646. So, here Maharashtra, Madhya Pradesh, Uttar Pradesh are willing to improve their quality service in Anganwadi centre through the web-based software technology.

The application was well used by the AWWs, with 80% workers using it daily. The training was effective, with AWWs possessing good knowledge of the application: 94% workers correctly identified the home visit scheduler, with over 80% further correctly identifying the symbols signifying priority and timeliness of home visits[1]. This indicates the grant success of this programme because the web-based program is user friendly.

---

[1]   http://icds-wcd.nic.in/nnm/NNM-Web-Contents/LEFT-MENU/ICT-RTM/ICDS-CAS _ Dashboard

Methodology

In methodological part we discuss about the implementation of such web-based technology applied in the various ICDS centre in various States. It has some procedure to apply such policy. Which are as follows.

- **Step 1:** first step we design the application through randomise draw a district Sahara situated in Bihar. We get a positive impact on the service in delivery of food items. It is one of the pilot applications of the MWCD.[1] And also use the dashboards is one of the effective service programmes on this context.

- **Step 2:** This step is more difficult than step-1, because it accumulates the three sectors which are   obtaining of mobiles, servers and enrolment of technical human resource. This application is very critical because its server should procure the mobile of the AWW and Supervisors give some technical knowledge and apply it. Such data store in server and through server data spread all the beneficiaries of ICDS and also the any AWW and Supervisor easily access these data. To manage these whole programmes some short of technical issue hampered the activities of the programme. To control this whole situation through helpdesks two-three technical person available in blocks or in districts.

- **Step 3:** This step is another very important step for performing such beautiful work. Training of workers is the third critical step in rolling out the ICDS-CAS. Training on the application was delivered in a cascade manner, starting with the training of master trainers (MT), who are active ICDS supervisors. A central training agency (CTA), supported the training of MTs. The MTs in turn trained the AWWs on the application. The CTA also directly trained the ICDS supervisors, block and district officials, and helpdesk personnel on their applications viz., supervisor application, dashboard and issue tracker/ troubleshooting. Which is shown in Figure-3(Appendix).

The second part is the application part of this application part of this programme. AWWs are responsible for such part. The trained AWWs was designed to allow first-time users to learn and put real time data on the software. AWWs deal in some critical phases, which are the worker to a module, required her to go back to her village and utilised this software, and return to the next phase with questions is more difficult.

- **Step 4:** This step is more important decision-making unit of ICDS. If 3rd step is complete successfully means the AWWs easily put the input level data in the server then ICDS officials are start their work. They reviewing the dashboard and monitoring it progress and find the gap between AWW and the beneficiaries. Then Supervisor or other officials are taking some solving action and correct problem easily.

In such way we collect data from the govt web side and ICDS use CAS but not use the proper way of mobile phone are not utilised the benefits of the ICDS centre so they are called the inefficient centre.

$$\text{Utilisation of ICDS} = \frac{\text{ICDS Use CAS}}{\text{CAS software user use mobile phone}}$$

Without mobile use the utilisation is not possible. We use the data from the RBI, https://m.rbi.org.in//Scripts/AnnualPublications.aspx?head=Handbook%20of%20Statistics%20on%20Indian%20States. After that we calculate the three method of regression which are simple linear regression, Tobit regression, and Truncated regression in the apply following procedure.

Utilisation of ICDS-CAS = A + B_1 (Growth of the population) + B_2 (Density of the population) + B_3(Infant Mortality Rate) + B_4(Percentage of agriculture) + B_5(Percentage of Working People) + B_6 (Percentage of rural population) + B_7 (Percentage of Malnutrition in ICDS).

Empirical Findings

A process evaluation of the ICDS-CAS was carried out from September 20I7 to February 20I8 in Madhya Pradesh and Bihar. Conducted by independent external evaluators, the evaluation pointed out that central and state leadership, support from development partners and the AWW's acceptance of the tool facilitated effective roll out of CAS in the states. Mobile service technology improves the nutritional status in every country.[2] In this analysis the variables are divided into four parts which are Demographic variables, Agriculture related variables, child related variables and others. Which are discuss in Table-2.

---

[1] Ministry of Women and Child Development (MWCD) https://wcd.nic.in
[2] https://thedocs.worldbank.org/en/doc/341341582314668056-0310022020/original/ Note1Mobile Technology forNutrition.pdf

Table 2: Dependent Variable (Utilisation of ICDS-CAS)

Sl.No	Variables	OLS	Truncated Normal	Tobit
	Demographic Variables			
1.	Growth of population	7.871037* (2.3)	8.8844984* (2.66)	8.122092* (2.98)
2.	Density of population	0.283808* (2.49)	0.0305292** (2.79)	0.0284668* (3.14)
	Agriculture Related Variables			
3.	Percentage of Agriculture	0.009426*** (13.72)	0.00952*** (16.18)	0.0094764*** (17.3)
4.	Percentage of rural population	5.732758* (3.10)	6.435096*** (3.35)	5.720418** (3.90)
	Child Related Variables			
5.	Malnutrition (ICDS)	1.013518 (0.51)	1.266265 (0.64)	1.134489 (-2.94)
6.	IMR	-6.969661* (-2.59)	-8.149625** (-2.98)	-6.962628** (-3.14)
	Others Variables			
7.	Percentage of working people	-0.0002094* (-1.94)	-0.0002258* (-2.10)	0.0002018* (-2.34)

From table-2, we get the increase in population it may be increase the demand for nutrition. Both child and mother increase the demand for the Common Application Software. On the other hand, density of population increases most of slum area in population is more essential utilised the ICDS services. So, we consider the positive coefficient of these demographic variables as population increase, the maximum portion of population coming from the low level of income which indicate the more utilisation of ICDS-CAS. India is a country, where agriculture is the one of the main source incomes. It is non profitable sectors because fragmentation of agricultural land and disguised unemployment, poor and low-income rural people are very much requiring for the proper nutrition that is why every rural people use this software-based technology. The t-ratio indicate importance of the agriculture 13.72 in OLS, 16.18 in Truncated, 17.3 in Tobit, means that agriculture sector is more important than other variable.

Next, we discuss the child related variable which are malnutrition and infant mortality rate. Here malnutrition is insignificant that means ICDS-CAS cannot reach the mal-nutrient child. And the utilisation of ICDS-CAS is negatively related with the IMR. That means where higher IMR implies the lower utilisation of advance technology. That high rate of infant mortality section of child does not access the common application software in ICDS. Many working families in India, all member of the family is work in any way. So, these sections of people are does not think about the nutrition of the child and mother. The literacy rate of this section of people are very low. So, the working section of people is negatively related with the utilisation of ICDS-CAS.
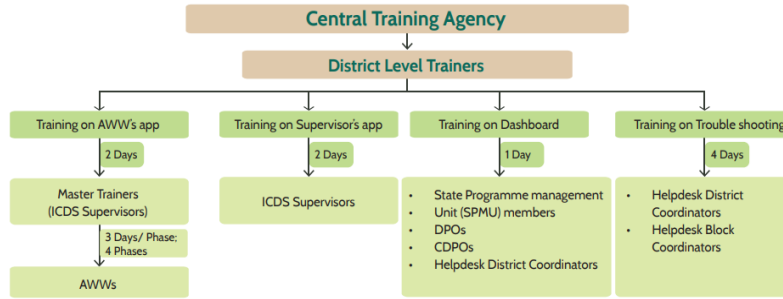
Conclusion

In conclusion it is says that the women are doing everything in recent time. But women have some limitations they are facing problem core hard working job is done. Or travelling same time with different area. But new technology may help to the women for easier to their job. So, women related programme is benefited such vital area. In the context of ICDS, it will helpful for women, child advance technology mitigates their want with proper time. It will helpful to memorise the proper medicine and vaccination schedule. Software aware the deficiency in the child and mother nutritional gap. Auto generated massage and video may help to improve the proper health and nutritional knowledge. Software may helpful for the AWW and lady supervisor because the it will helpful to easier to her job. It helpful for data collection of AWW. Such data are auto generated and store it for a long period. And from these data are once uploaded it will helpful to supervisor to find the centre wise service gap. This software really upsurges and boost the power of women.

The benefit of the application has earlier the focus was on quality of services being delivered. A complete dataset on the dashboard in one place which helps supervisor and other officials evaluate most priority sectors. The application was also found to be helpful in facilitating counselling during home visits. Such data through application also helpful for the various research institute and research scholar to improve their study. Software based technology may mitigate the limitation of women. Software based application has some limitation. The semi-literate AWWs to are fair about to use of new technology. some of the aged AWWs are not use of the smart mobile phone. Such inability should reduce the empower of
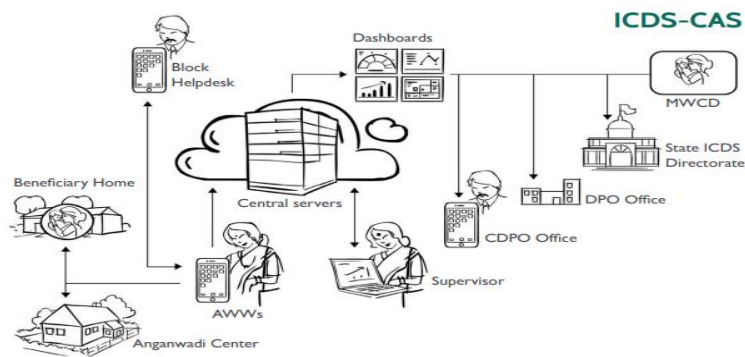
the AWWs. But the problem is the implementation of this technology. From our empirical findings shows that the implementation of software not significantly reduce the malnutrition. And where infant mortality is higher, this is due to backwardness, illiteracy reduce the utilisation of ICDS-CAS. So, it is obviously a magnificent technology not only increase the women empower but it also improves the society welfare.

Appendix

Figure 3: (ICDS-CAS Training)

Source: - https://thedocs.worldbank.org/en/doc/341341582314668056-0310022020/original/Note1MobileTechnologyforNutrition.pdf

Figure 4: (ICDS-CAS)

Source: - https://thedocs.worldbank.org/en/doc/341341582314668056-0310022020/original/Note1MobileTechnologyforNutrition.pdf

Figure: 5

Source: https://thedocs.worldbank.org/en/doc/341341582314668056-0310022020/original/Note1MobileTechnologyforNutrition.pdf.

◻◯◻