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Assessment of an ICT-based Training Programme for Mid-Day-Meal Cooks-cum Helper (CCH) in Varanasi and Dhenkanal

Baseline Report

Prepared by
India Development Foundation

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EXECUTIVE SUMMARY

CONTEXT

The Mid-Day Meal (MDM) scheme, a school meal programme of the Government of India (GoI), guarantees one meal to all school-going children from class 1 to class 8 to improve enrolment, retention, and attendance in addition to enhancing their nutritional levels. The scheme envisages delivering the meal, cooked in safe and hygienic environment. To ensure the programme's smooth operation, the scheme has made provisions of essential infrastructure such as the kitchen-cum-stores, kitchen devices, and human resources such as cooks. In order to ensure that good quality food is provided in schools, the government has prepared the guidelines for Cook-Cum-Helpers (CCHs), keeping aspects of quality assurance and safety as its integral part of food handling procedures in school kitchens. The government has directed education departments in the states to get all midday meal CCHs trained by "master trainers" through Institutes of Hotel Management (IHMs) and Food Craft Institutes (FCIs).

Having recognized the criticality of the role of the CCHs as being pivotal to the delivery of an effective and efficacious mid-day meal scheme, the UN World Food Programme proposed to invest in their capacity building as part of their ongoing projects in Dhenkanal, Odisha and Varanasi, Uttar Pradesh.

These joint efforts are aimed at enhancing the MDM scheme's efficacy by providing capacity strengthening and technical assistance through pilot interventions in Dhenkanal and Varanasi. The interventions are designed to deliver information and communications technology (ICT)-based trainings to all the CCHs (cook-cum-helpers) and fill their critical knowledge gaps.

BRIEF OVERVIEW OF THE STUDY

The study aims to assess the effectiveness of the intervention through a quantitative assessment of the knowledge, attitude, and practices (KAP)¹ of the CCHs towards e-learning and their jobs as it is being carried out, before (baseline) and after (follow-up) the intervention.

The study first looked into sociodemographic characteristics of the respondents to describe the profile, assess their prior exposure, Knowledge, Attitude and Practices towards ICT etc., to put the survey results into context. Thereafter, the study benchmarks the status of Knowledge, Attitude and Practices of CCHs towards their job responsibilities at school.

BRIEF OVERVIEW OF THE METHOD

For the baseline study, there are 331 intervention schools in the two intervention blocks: 180 in the Kamakhyanagar block of Dhenkanal district and 151 in the Cholanpur block of Varanasi district. A sample of 65 and 60 intervention schools were randomly selected in each of the two intervention locations respectively.

All the CCHs were administered two kinds of questions as part of KAP surveys. First, close-ended questions which required the CCHs to select multiple answers from the choices made available to them. Second, where a statement was put forth (Likert scale) to the CCHs, and they were asked if they agreed or disagreed with the same on a scale of 1 (negative response) to 5 (positive response).

¹ A KAP survey is a study of a specific population to collect information on what is known, believed, and done in relation to a particular topic — in this case, Kitchen Food Safety & Hygiene Practices & use of ICT.

FINDINGS

Sociodemographic Characteristics: The sampled CCHs both in Dhenkanal and Varanasi has been a heterogenous group in terms of age, marital status, social status, and levels of education. Average age of CCH is 44 years in Dhenkanal and 42 years in Varanasi. Majority of the CCHs were married and a considerable proportion was widowed. Generally, the levels of education among CCHs were very poor in both locations and a big proportion of them was either illiterate, literate non-formally or educated only up to primary school. Majority of the CCHs belonged to Other Backward Classes (OBC) in both locations and at least one third of the CCHs covered in our sample came from resource poor background as they possessed either BPL or AAY cards.

Ownership and accessibility of mobile phones: Almost a third of sampled CCHs in Dhenkanal and close to 43% in Varanasi did not own a phone. However, close to 90% CCHs in Dhenkanal and 93% in Varanasi who do not own (a) phone' still had access to phone. Smart phone ownership was very low among CCHs-9% in Dhenkanal and 8% in Varanasi. Most of the CCHs owned feature phones- 59% in Dhenkanal and 49% in Varanasi.

Knowledge, Attitude & Practices (KAP) around ICT

Knowledge of ICT: Majority of the CCHs in both locations are aware of most basic features in mobile phones such as voice and video calls, sending and receiving messages, clicking pictures, and playing games. The exception is 'surfing information on the internet'; where awareness levels were lower than the other mobile phone features.

Acceptability and comfort level with ICT environment: Acceptability of training through the App is low among CCHs. Only about 5% and 3% of the CCHs in Dhenkanal and Varanasi respectively showed interest in getting trained through the App. In fact, 93% CCHs in Dhenkanal and 86% in Varanasi think they will require help form another person while learning on a smart device.

Attitude towards technology: Majority of the CCHs in Dhenkanal agree that learning through smart gadgets helps acquire new knowledge and enhances learning experiences. The bulk of their Varanasi counterparts do not feel so. CCHs in both locations associate e-learning with convenience, as well as being a medium that enables easier revision compared to print. Majority of them are willing to devote extra after-school hours to learn cooking practices and new technology.

Practices prevalent towards ability, comfort, and usage of ICT: About half the populations in both the location are skilled to operate mobile phones without assistance. Most CCHs, in both locations, are comfortable with using feature phones, and mostly do so to make calls and they are currently more skilled in using voice calls only compared to other features of the phone. They find features like voice calls, video calls, sending and receiving messages most useful. CCHs in Dhenkanal find mobile phones with more functions, more beneficial than those in Varanasi.

Knowledge, Attitude & Practices (KAP): Job Responsibilities of CCHs

Knowledge of their job: The findings here are much varied for both locations across topics. In fact, the findings below suggest that there is a huge scope for incremental gains with the training on the Knowledge of the job itself. One of the key areas of improvement for CCHs in Dhenkanal is on matters related to 'method of cooking for retaining nutrients.' Similarly, there is also a huge scope for improvement in the depth of

understanding on each of the topics as only about one fourth CCHs in Dhenkanal could cite more than two reasons as to why meals should be cooked with the lid closed. Similarly, only about half of the CCHs surveyed could list one benefit of cooking the single meal and nearly one third of them could cite more than two steps to be taken in case of emergencies related to children falling ill after consuming MDM. However, CCHs in Dhenkanal were marginally better informed about the sources and modes of contamination and method of cooking for retaining nutrients, procurement, and storage of raw material.

Meanwhile, CCHs in Varanasi knew more about the benefits of cooking single meals. None of the CCHs in Varanasi could cite more than two reasons as to why meals should be cooked with the lid closed and here also the two most common reasons cited were to prevent insects and other contaminants from falling, and to cook food faster. Majority of the population could list at least one benefit of cooking the single meal and very few of them could cite more than two steps to be taken in case of emergencies. They are better informed about personal hygiene. This includes topics such as the propriety of wearing of accessories while cooking and cleanliness of kitchen and utensils. CCHs in both the locations have low awareness on waste disposal.

Attitude on carrying out their job responsibility: CCHs in both locations have almost similar and positive attitude with regard to cleanliness of kitchens, tasting and serving of the food that they prepare, and preventing contamination. However, the area of concern among CCHs in Dhenkanal have been their attitude towards their roles and responsibility, as a considerable proportion of CCHs thinks that it is only MDM teacher-in charge's responsibility to maintain nutrition and hygiene standards. At the same time, the area of opportunity had been that though at least half of the CCHs were satisfied with their current knowledge, , majority of CCHs in both the locations are still willing to attend trainings on cooking practices and job-related functions, even if these are held after their working hours. Their willingness to learn even after the working hours shows their keen interest in learning

Practices followed while working in their jobs: The practices of CCHs are varied for both locations depending on the tasks at hand. A considerable percentage of CCHs do not follow correct practices with regard to procurement and storage of raw material, healthy cooking methods and personal hygiene in both the locations. However, among many aspects of their daily job, CCHs in Dhenkanal are deploying marginally better practices in matters of procuring ingredients, being cautious about contaminants, tasting and serving the food they prepare, and also personal hygiene. CCHs in Varanasi perform better with regard to following healthy cooking methods and keeping kitchens and utensils clean.

RECOMMENDATIONS

1. **Conduct an ICT-Orientation Session:** The findings suggest a low level of acceptance for training through the App, and that most CCHs find operating smart devices difficult and require help to do so. Therefore, the programme will do well to have initial orientation session to increase the CCHs' familiarity with technology before start of training. The orientation sessions may focus on boosting the morale of CCHs towards use of ICT, having a positive learning attitude, counter social norms that inhibit use of ICT by women etc.
2. **Encourage Peer Support/Buddy System:** Based on the interest and retention by younger people, the programme should encourage younger and more educated CCHs to take on leadership roles or peer support to older, lesser educated CCHs to generate and maintain interest levels, and also to assist active participation by others.
3. **Modules/Assessments should prioritise and emphasise on the consequences of 'Modes of Contamination':** Under the practices being followed by the CCHs, although considerable proportion of

CCHs are following the correct practices to prevent the issues of contamination, there is a small yet critical proportion of CCHs who do not follow the correct practices. This may lead to immediate serious health consequences of children. Therefore, appropriate emphasis on the seriousness of the consequences should be provided through modules. The programme team may include few questions on this aspect and any difficulty in understanding of such concepts should be resolved through schools' authorities (headmasters/nodal teacher concerned.)

4. **Encourage active participation by CCHs in e-learning:** Since levels of education among CCHs are very poor, the only way to make them learn about the ICT based programme is through actively supporting them to get functional literacy too. The potential ways can be to include teaching staff on a rotational basis to help them get comfortable with the device, group based practice of on a weekly basis and even instituting competition and reward for good performers may be a good way to incentivise CCHs.

1. INTRODUCTION

The Mid-Day Meal (MDM) scheme, a school meal programme of the Government of India (GoI), guarantees one meal to all school-going children from class 1 to class 8 to improve enrolment, retention, and attendance in addition to enhancing their nutritional levels. The scheme serves 115 million children across 1.1 million schools and has a total annual budget of USD 1.5 billion. The cost of the MDMS is shared between the central and state governments. The central government provides free food grains to the states. The cost of cooking, infrastructure development, transportation of food grains and payment of honorarium to cooks and helpers is shared by the centre with the state governments.

The scheme envisages delivering the meal, cooked in safe and hygienic environment. To ensure the programme's smooth operation, the scheme has made provisions of essential infrastructure such as the kitchen-cum-stores, kitchen devices, and human resources such as cooks. There are in total 2.5 million cooks-cum helper (CCHs) in India that uses 2.6 million tonnes of food grains to cook hot cooked nutritious meal for school children. Further, these local CCHs manages critical job responsibilities such as handling kitchen, cooking, and distribution of food to students². For ensuring good quality food is provided in schools, the government has prepared the guidelines for CCHs, making quality assurance and safety an integral part of food handling procedures in school kitchens. The food provided through these kitchens is expected to adhere to food safety and quality norms, and be nutritious, free from food adulterants, contamination pathogens, artificial non-food grade colours and additives. The human resource development (HRD) ministry in 2017 directed education departments in the states to get all midday meal cooks-cum-helpers trained by "master trainers" through Institutes of Hotel Management (IHMs) and Food Craft Institutes (FCIs). In addition, ministry also initiated training of cook cum helpers in 2017-18 in association with an NGO Akshaypatra in the State/UTs.

Need for the pilot intervention by WFP

Despite Government's guidelines on food safety and hygiene that includes procurement, distribution and also matters of waste management, the lack of awareness among CCHs on all such matters is a concern. Despite Government's initiatives on training CCHs, it is less likely to reach all CCHs any soon as the trainings are irregular. As a result, very few CCHs get an opportunity to participate in the face to face trainings. In this context and also having recognized the criticality of the role of the cook cum helpers as being pivotal to the delivery of an effective and efficacious mid-day meal scheme, UN World Food Programme proposed to invest in their capacity building through ICT based learning platform as part of their ongoing projects in Dhenkanal, Odisha and Varanasi, Uttar Pradesh.

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