

A Time Log Study of Activities of Medical Officers Working at Urban Health Centres of Ahmedabad City, Gujarat

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Abstract:

Introduction: Medical Officer (MO) of an Urban Health Centre (UHC) is responsible for implementing all activities grouped under Health and Family Welfare delivery system in UHC area. While RBSK MO of UHC works under Rashtriya Bal Swasthya Karyakaram (RBSK). **Objective:** To assess various activities carried out by MBBS MOs and RBSK MOs at UHCs with proportion of time spent on each of activities. **Method:** The study was conducted at randomly selected 12 UHCs from randomly selected 3 zones of Ahmedabad city. Data regarding activities of MBBS and RBSK MOs were collected using predesigned matrix time log sheet wherein the MOs had to fill up their activities on 15 minutes slots for 2 weeks. Data were entered and analyzed using MS Excel. **Results:** Effective working time per day was $7 \pm 1/2$ hours & 6 ± 1 hours for an MBBS & RBSK MO respectively. Majority of time spent per day by the MBBS MO was in conducting general OPD (mean 149 minutes) followed by preparing/checking reports. While, for RBSK MO, it was in health checkup at Anganwadis & Schools (118 & 93 minutes respectively) followed by preparation of reports. Both MOs spent maximum time towards clinical work (48.51% by MBBS & 68.45% RBSK MOs) followed by administrative work (33.73% by MBBS & 18% by RBSK), field visits (11.5% by both), CME/workshops/trainings (2.02% by MBBS and 0.66% by RBSK) and other activities (4.2% by MBBS and 0.8% by RBSK). **Conclusion:** Frequency of various major activities was as per the recommendations for most of the MOs. However, many of them were not able to cover all the activities mentioned under guidelines.


Key words: Medical officer, RBSK, Time log, Urban Health Centres

Introduction:

In health care, usually there are no time based written standards for job processes.^[1] And most of the health care personnel have more than one job to perform. To provide quality services, it is important for a person to use time with discretion to perform all jobs effectively. So time log study is one tool which can be used to assess the situation. It helps to study the activities of a person and importantly to discover

activities which lead to accomplishment of goals.^[2] It helps a person to know which the time wasters are and how to make better use of time to effectively do the job.

The Medical Officer (MO) of an Urban Health Centre (UHC) is responsible for implementing all activities grouped under Health and Family Welfare delivery system in UHC area.^[3] He is solely responsible for the proper functioning of the centre

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which includes providing comprehensive health care to patients and community, implementation of activities under various national health programs and administrative work (managing human resource, supplies and finance).^[3] Under RBSK (Rashtriya Bal Swasthya Karyakaram), to promote child health screening and early intervention services, in children from birth to 18 years of age, a mobile health team consisting of two Doctors (AYUSH) one male and one female along with other staff has been suggested.^[4] They also work at UHCs.

On literature review, no such study could be found, which depicts activities of MOs, working in public health system. In that view, we proposed to carry out a time log study of activities of MBBS MOs and RBSK MOs working in UHCs of Ahmedabad city with following

Objectives:

1. To assess various types of activities carried out by the MBBS MO as well as RBSK MO of UHC.
2. To determine the proportions of time spent by the MOs for various activities.
3. To study the effective working hours of the MOs.
4. To assess views of MOs on the usefulness of time log sheet for process improvement in health care.

Method:

The study was conducted in Ahmedabad city which is divided into 6 municipal zones; the zones are further divided into wards. Each ward has one UHC. When the study was conducted (2016), a total of 61 (at present 77)^[5] UHCs were functional in the city. Each UHC had one MBBS MO and one RBSK MO (AYUSH) (at present two RBSK MOs).

Study population & sample size:

A total of 122 MOs were there in the system at time of study. Taking 20% of study population as a sample, 24 MOs working in UHCs were interviewed to study time log of their activities.

Out of the 6 zones, 3 zones were selected randomly using lottery method. From each zone, 4 UHCs were selected, again by lottery method. So, a total of 12 UHCs and 24 MOs (including MBBS and RBSK MOs) working at selected UHCs were taken.

Inclusion criteria: MOs who completed minimum six months of service at UHC and who was willing to participate were included in the study. While MO who had not completed six months of service in an UHC at time of interview and who was unwilling to participate were excluded.

Data Collection:

Data was collected using predesigned pretested matrix time log sheet wherein the Medical Officers were instructed to fill up their activities in the sheet on 15 minutes slots, from 9 am to 5 pm for 2 weeks (12 working days). These sheets were then collected, on 4th, 8th, & 12th day. So a total of 3 log sheets were used (each containing slot for 4 days). Along with that, a sheet for the details of extra working (out of the regular working hours) was also given, which were filled up only in case of such work. At the end of 2 weeks, all MOs were given a blank sheet to write their views on usefulness of such time log exercise for process improvement.

Ethical consideration:

1. Proposal was approved by Institutional Ethical Committee (IEC).
2. Permission from the local health authority (Medical Officer of Health, Ahmedabad Municipal Corporation) was obtained before starting study.
3. Data were collected after obtaining written consent of Medical Officers.

Data analysis:

Data was analyzed using MS Excel 2007 to find out the mean effective working time for MOs, various activities carried out by MOs, mean time spent on major activities and also proportions of time spent for various activities. Few of the important activities

i.e. monitoring of Village Health and Nutrition Day (VHND), attending Antenatal clinic, staff review meeting, report preparation, screening at Anganwadis, schools, delivery points etc. which were carried out few days in a week were also assessed for their frequency and time spent on that during each time. Qualitative assessment was done regarding their views on such exercise for process improvement.

Results:

Study covered 20 MOs out of total of 24 consisting of 12 MBBS MO and 8 RBSK MOs as, there were two vacant posts of RBSK MOs and two RBSK MOs were not responsive. The effective working time per day for MBBS MO was 7 +/- 1/2 hours, while that of RBSK MO was 6 +/- 1 hour.

Majority of time spent by the MBBS MO was in looking after the general OPD (149 minutes), after

which they spent majority of the time in preparing/checking reports (40 minutes). Staff review meetings (32 minutes) took up the third major time spent followed by finance management (18 minutes). Around 13 minutes of time spent towards non assigned activity like social media, news paper reading, and telephone. Proportion of time spent on various activities have been shown in figure 1. General OPD was carried out by all MOs daily while other major activities of MBBS MO, were quite varied in frequency as well as mean time spent towards each. (Table 1)

Majority of the time spent by the RBSK MO was in health checkup and screening of children at Anganwadi centres (118 minutes), followed by school health programmes (93 minutes), followed by preparing of reports (50 minutes) and visit to delivery points (48 minutes). Proportion of time spent on various activities have been shown in figure

Table 1 : Detail of few Major activities which were performed few days a week by MBBS MOs (n=12)

| Activity | No. of MOs performed that activity during study period (%) | Frequency | | Mean time spent in minutes | Range of time spent (in minutes) |
|--------------------------------------|--|-------------------|----------------------|----------------------------|----------------------------------|
| | | Min. | Max. | | |
| Checking/preparing of reports | 11 (91.7) | Once a week | Every day except Sat | 71 | 30 to 125 |
| Staff review meeting | 12 (100.0) | Once a fortnight | Every day except Sat | 67 | 30 to 150 |
| Finance management | 8 (66.7) | Once a week | Every day except Sat | 68 | 30 to 135 |
| Supervision of vaccination programme | 6 (50.0) | Once a fortnight | Four times in a week | 83 | 40 to 180 |
| Solving staff issues | 8 (66.7) | Once a fortnight | Four times in a week | 42 | 23 to 90 |
| Meeting with official | 11 (91.7) | Once in fortnight | Every alternate day | 94 | 15 to 180 |
| VHND visit | 10 (83.3) | Once in fortnight | Twice a week | 54 | 35 to 75 |
| ANC clinic | 4 (33.3) | once a fortnight | Every day except Sat | 67 | 15 to 125 |

Figure 1 : Activities carried out by MBBS Medical Officer of UHC with proportion of time spent on each

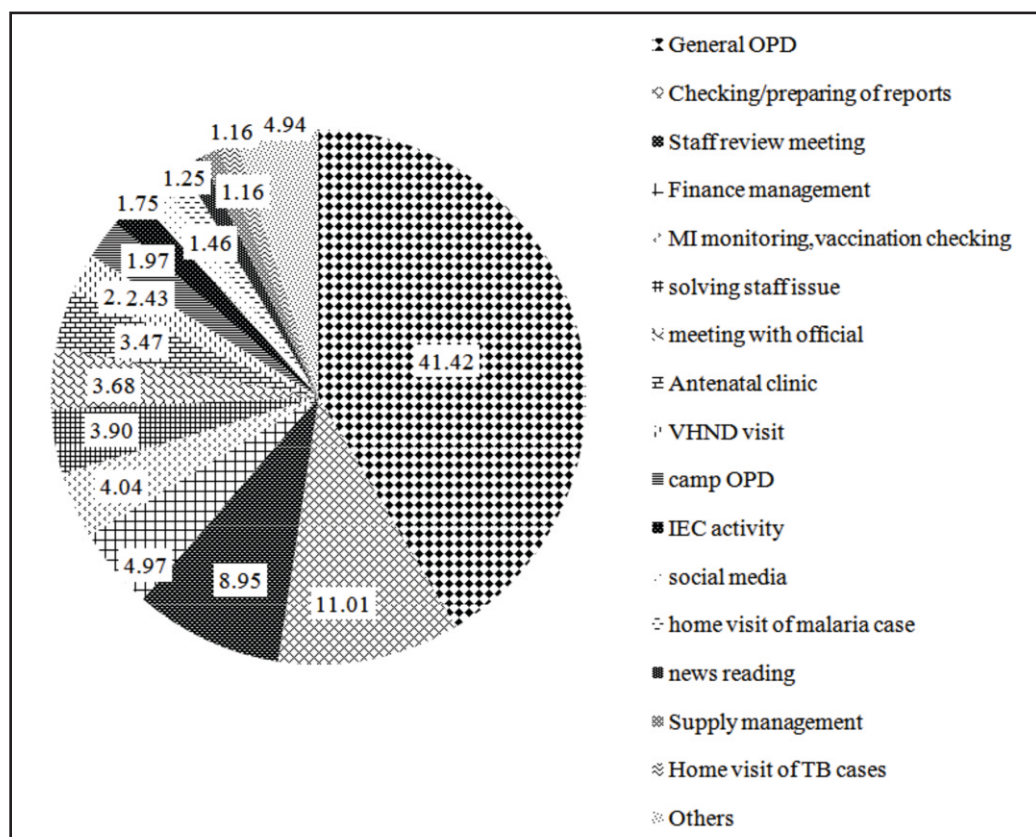


Figure 2 : Activities carried out by RBSK MO of UHC with proportion of time spent on each

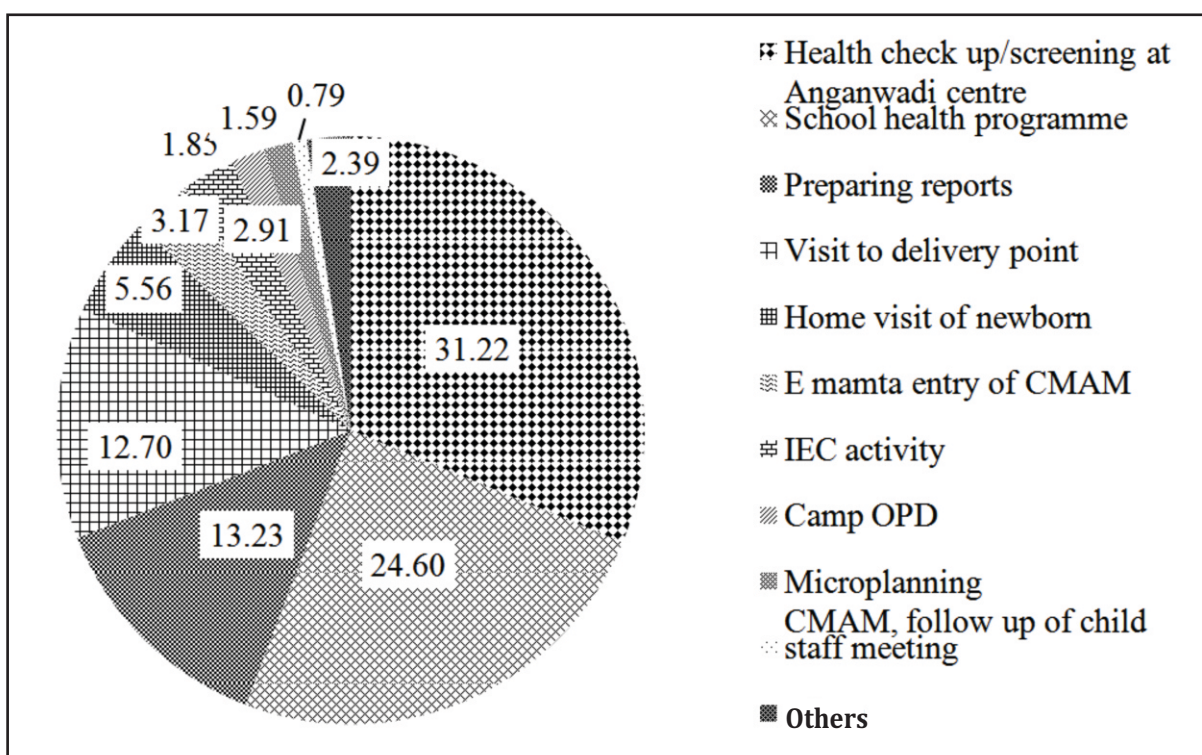
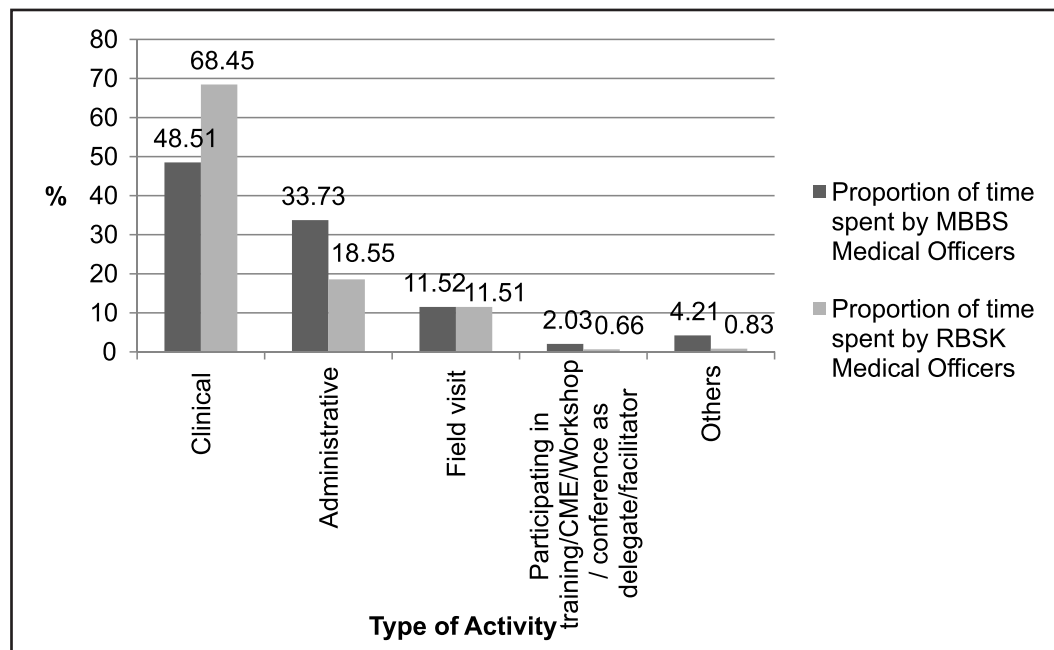


Table 2 : Details of Major activities of RBSK MO (n=8)

| Sr. no. | Activities | No. of MOs performed that activity during study period (%) | Frequency | | Mean time spent in minutes |
|---------|---|--|---------------------|----------------------|----------------------------|
| | | | Min | Max | |
| 1 | Health check up/screening at Anganwadi centre | 5 (62.5) | Every alternate day | Every day | 219 |
| 2 | School health programme | 5 (62.5) | Once a week | Every day | 213 |
| 3 | Visit to delivery point | 8 (100.0) | Once in fortnight | Every day except Sat | 88 |
| 4 | Preparing reports | 7 (87.5) | Once in fortnight | Every alternate day | 86 |
| 5 | Home visit of newborn | 3 (37.5) | Once in fortnight | Every day except Sat | 109 |

Figure 3 : Comparison between proportions of time spent on various categories of activity by MBBS and RBSK MOs



2. In RBSK MOs, all activities were quite varied in frequency as well as mean time spent towards each. Except for visit to delivery points, no activity was conducted daily. (Table 2)

Others include: Indoor/Daycare Activities, Discussing new guidelines, Telephone, Satcom, Training as facilitator, delegate in conference, CME as

facilitator, Polio camp, MI microplanning, Medical checkup of health staff, home visit of maternal death, delivery, meeting with NGO partner

Others include: Attending telephone, Meeting for treatment of a child in hospital, solving staff issues, as delegate in training, supply management, discuss new guidelines with staff, meeting with officials.

Comparison of proportion of time spent on major activities by MBBS and RBSK MOs is shown in figure 3.

Qualitative Component

Views of Medical officers on effectiveness of time log study for process improvement

Out of 20 MBBS MO, only 4 gave their views on usefulness of such study. Majority of them considered this a waste of their times. No RBSK MO responded to this. MBBS MOs responded saying that they already knew on which activities, they were spending more time. It is difficult for them to complete work on time. As per their view, they need more staff in UHC as it seemed impossible for a single MO to carry it out. One MBBS MO mentioned (in her own words)- "For us, Medical Officers working in health department, this time log study is giving update of our work to another hospital/health department. We are doing more managerial work than clinical."

Findings based on interaction with MOs during visits to UHCs:

Half of MOs were not satisfied with their salary. They felt they were getting less pay for the amount of work and efforts, they were putting in. For the areas where inflow of patients was too much, they demanded that more than one UHC be made for the same area. Because MO in such UHC will not be able to carry out other field activities.

Discussion:

In the current study, the effective working time per day for an MBBS MO was 7 +/- 1/2 hours, while that of RBSK MO was 6 +/- 1 hours. As per standards of Primary Urban Health Centre (PUHC)^[3], at least 2 Medical Officer (MBBS) to be present all the time with at least 1 trained in emergency obstetric care. However, in Ahmedabad, timings of UHC are 9 am to 5 pm including lunch break and it usually provides day care facilities. Considering that, effective working time found in our study is appropriate. For emergency care, in Ahmedabad, there are maternity homes, referral hospitals and other tertiary care

hospitals run by government as well as private sector.

As Under PUHC guidelines^[3], how much proportion of time must be spent by an officer in carrying out a particular activity is not stated except for outreach activities where at least once in fortnight visit is recommended; however, minimum time to be spent there is not suggested. Hence, we cannot conclude if the time spent by them for these activities is appropriate or not. But if they can do all the assigned activity, then we can say it's appropriate. Here, it was observed that most of the MOs could not do all assigned activities during study period.

As per the terms of References of RBSK MO,^[6] they have to do daily screening of children at Anganwadi/schools. Here, most of the MOs were doing this activity daily except few who were doing this on alternate day. Home visits of newborn were done by only 3 MOs during study period which may be because in catchment areas of other MOs, no newborns would be there during that period.

It was good to see that both MOs were spending minimal time (4.2% in MBBS and 0.8% in RBSK) on non assigned activities i.e telephone, social media, news reading.

Limitations of this study:

- Non compliance of few medical officers was a drawback. Many of the MOs were not very eager to help out in such a study because they already had a lot of work piled up, to which they didn't want to add more. It took a lot of efforts to convince them to fill up all the forms.
- Ideal would be to observe them working and noting down time for each activity. But because of non feasibility, we have to rely on self administered time log sheet, information provided in that depended upon the interest of MO in study.

Conclusion:

Most of the time of MOs was spent on clinical work followed by administration, field activities,

participation in CME/workshops and others in descending order. Frequency of various major activities was as per the recommendations for most MOs. However, many of them were not able to cover all the activities mentioned under guidelines due to lack of time.

Recommendations:

- As both types the medical officers spent least amount of time in the category of participating in various CMEs/workshop, this has a scope of improvement because in medical profession, these are essential for increasing knowledge and staying updated.
- Similarly, time spent in field work may be increased as many preventive and promotive health activities are carried out in the fields for the well being of the society. If they are carried out for a longer time with more efficacy, it would benefit the entire community.
- Using this as baseline survey, effort may be taken to formulate time guideline for various activities of medical officers of urban health centres including time schedule and frequency for various field activities which will help medical officers to ensure better quality service delivery and may help to alleviate their dissatisfaction towards workload.

Declaration:

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Conflict of Interest: Nil

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