

How Do Nurses Spend Their Time in Schools?

GRACE M. McFADDEN, R.N.; HELEN A. MILLER, R.N.; MARGUERITE P. CHAPMAN; and FLORENCE R. RICH

The activities of public health nurses assigned to city schools were recorded to find out how much of their day's work was devoted to non-nursing services that lay assistants might do just as well. The ways the successful survey was planned and carried out are recounted here.

✱ This study was initiated under the pressure of necessity. Nursing time has become scarcer and scarcer as the years go on. There are twin factors that make for this condition, one the expansion of public health service, the other, the shortage of trained personnel. One of the purposes of this study was to determine how seriously the burden of clerical and other routine details affect the way nurses work in schools and, if possible, to suggest corrective measures.

It was assumed that a significant amount of the nurses' time is spent in routines which could be given to ancillary help. It was also the hypothesis that if nurses could be relieved of these non-nursing activities their time could be more effectively used in work which they alone can do. This should lead to better public health nursing service for school children.

There has been a change in emphasis in the school health services in New York City during the past 10 years. While the activities performed in schools have been part of the program since 1940, the scope in which they are performed has broadened considerably. There are more schools, more pupils, and the physical examinations extend to

cover more grades and more children. The school system itself is more complex. Teachers, health counselors, guidance counselors, social workers, and others who work with children are vitally interested in anything nurses can do to help them. On the other hand, the amount of available nursing time has decreased. However, during the school year 1954-1955 the use of ancillary help in schools was begun, by the assignment of public health assistants who perform work which is clerical and semitechnical in nature.

In New York City the Department of Health provides the school health services to over one million children in the public and parochial schools. These services form a major part of the work of the department's public health nurses. Children of school age receive 58 per cent of the total nursing time. In this study only 40 per cent of the total time was considered, since 18 per cent is allocated to service outside of the school building.

The existence of a shortage of nursing time was a problem, but it at least was a clear problem. What was not so im-

Miss McFadden and Miss Miller are consultant public health nurses; Mrs. Chapman is senior statistician, Bureau of Public Health Nursing; and Mrs. Rich is statistician, Bureau of Records and Statistics, City Health Department, New York, N. Y.

This paper was presented before a Joint Session of the American School Health Association and the Maternal and Child Health and School Health Sections of the American Public Health Association at the Eighty-Fourth Annual Meeting in Atlantic City, N. J., November 14, 1956.

mediately clear was how and where to begin. Under the sponsorship of the director of the Bureau of Public Health Nursing a committee was formed. The committee membership consisted of a district health officer, supervising school physician, district supervising public health nurse, supervising public health nurse, and a public health nurse. The two nursing consultants for schools were also on the committee. The directors of the Bureaus of School Health and Public Health Nursing, their assistants, one senior statistician and a statistician served as resource and consultant staff to the committee.

A review of the literature revealed that everyone agreed there was great need for the type of information wanted, but there was little guidance in ways to obtain it. A number of methods were tried. One, a narrative report of nursing activities kept by the public health nurse, was found to be inaccurate and too time-consuming. A large group of nurses could not be expected to keep accurate accounts of their activities. It was known from experience that such technics as shadowing would not give a true picture. Also, the personnel and the time for this type of observation were not available.

After consideration by the committee it was decided that a time study conducted along the lines of one reported by the Yale Public Health Personnel Research Project be done in an attempt to measure the kinds of activities carried on by public health nurses in the school health program and the amount of nursing time involved.¹

The measuring device this technic employs is a time log. The Yale time log is accompanied by an activity list of 21 items, with definitions and examples. Because, for the purpose of this study, these activities were too broad, the time log was amended and a new activity list was developed. This included, as nearly as possible, every kind

of work the nurse might do in school. The activities were broken down into types of activity which might require professional and nonprofessional abilities, particularly in recording. Provision was also made for recording activities which are not outlined in any manual of procedures but which are part of the nurses' work in establishing and maintaining good working relationships.

The factors governing the selection of the school sample were the size of the school population and the number and type of schools in each district, in order that the group selected would be representative of the city's entire school system. Approximately 53 per cent of the sample schools were public elementary and about 11 per cent were public junior high schools, with the remaining 36 per cent falling into the parochial school group. This very closely approaches the distribution for the city as a whole and resulted in a selection of 115 schools from the 30 health districts in New York City, or approximately a 12 per cent sample. These schools were also grouped into five registration categories, ranging from schools with less than 500 pupils to those having more than 2,000 pupils.

The time for the study was placed in February, March, and April, 1955, when most school days are what is considered to be normal. That is to say, there were no special projects going on, no extra work involving new admissions, and no gaps created by holidays.

The next step was to enlist the cooperation of the public health nurses whose services were sought. This was done at a series of meetings, held in each borough, at which the goal of the study was explained in detail. Since the pressure on the public health nurses was largely responsible for the inauguration of this study, their cooperation was easily enlisted. After these meetings a full-scale test of the study was run. Each of the participating

public health nurses was given a time log which she was to fill out and return. Any questions or suggestions that occurred to the nurses were to be submitted. None was received. However, it is worthy of note that this was not due to lack of interest, because it was not necessary to drop any school from the study. The pretest indicated that no changes in the procedure were needed.

It is recognized that this study is only a small segment of a very large area in need of evaluation. However, the results may be useful as a guide in the formation of policy. The statistical analyses indicate that the preliminary estimate of the problem was correct. The burden of an expanding public health program, coupled with a shrinkage in the size of the staff, makes it imperative to explore critically what the public health nurse can and should be doing in any program in order to make better use of her skills.

One point is clear. No expansion of the school health program should be undertaken until it is shown that an adequate staff has been provided. There are three ways in which this can be done. First, the assignment of more trained public health nurses to the school health program. The answer to that solution is well known; the trained personnel is simply not available. Second, the elimination of the less essential services, if any, and third, the creation of a group of ancillary workers to perform those tasks that can be properly assigned to them.

When the time logs were returned the activities were classified. Thirteen of them fell into what were characterized as nursing activities and four into non-nursing ones that could be assigned to ancillary help. One classification contained both elements; three—fire drill, lunch, and personal—fell into none of the above. These broad categories contained 56 specified items.

For all schools in the study the

the nurses spent about 73 per cent of their time in nursing activities and almost 25 per cent in non-nursing ones. In the small schools with registration of under 500 pupils less time went into the professional areas and more time in the nonprofessional ones, while the opposite was true for the largest schools with registration of over 2,000 pupils. However, these differences showed a very small range in the five registration groups (Table 1).

It was interesting to note the percentage of time spent in the various items listed in the nursing activities, according to the size of the school. As the registration increased more nursing time was spent in such routines as daily inspections and first aid while less time went into conferences and follow-up. When the time spent in daily inspections and the time spent in first aid were lumped together, the percentage in the largest schools exceeded that of the smallest schools by nearly 15 points. On the other hand, when the time spent in the various conferences and follow-up activities was grouped, then the reverse was true. The percentage of time used in conferences and follow-up activities in the smallest schools exceeded that used in the largest schools by more than 12 points.

This pattern of time distribution was also true when the percentage of nursing time devoted to case finding and follow-up was examined. Again, in the smallest schools about 30 per cent was given to case finding and 33 per cent in follow-up with a gradual decrease, as the size of the school increased, until in the largest schools the percentage dropped to about 26 per cent for both. These case-finding, conferences, and follow-up activities are considered the most important public health nursing functions in the school.

In this study the largest schools were mainly junior high schools which are departmentalized. Contact with teachers

Table 1—Percentage of Public Health Nurse Time Spent in Each Activity by Size of School

Activities	Registration of Schools					
	All Schools	Under 500	500-999	1,000-1,499	1,500-1,999	Over 2,000
A. Nursing						
1. Daily Inspections	9.8	3.7	8.4	10.3	12.3	12.4
2. First Aid Emergency Referrals	3.8	1.3	2.9	3.7	4.4	7.4
3. Organization of Work—M.D. Session	2.1	2.2	2.5	1.6	2.5	2.1
6. Assisting at M.D. Session	13.2	13.8	13.2	12.8	12.6	15.2
8. Preparation for Teacher-Nurse Conference	2.5	2.4	2.2	2.9	2.5	1.8
9. Teacher-Nurse Conference	7.1	8.0	7.4	7.1	7.2	5.5
10. Follow-Up Teacher-Nurse Conference	2.7	3.3	2.9	3.1	2.0	1.8
11. Nurse Follow-Up	12.9	12.3	13.6	13.1	13.6	8.3
12. Parent-Nurse Conference	7.8	8.4	8.4	7.6	6.4	9.2
13. Conferences Relating to School Health Program	7.3	10.2	8.1	7.2	5.8	5.6
14. Conferences with Outside Agencies	1.8	2.2	2.2	1.6	0.7	2.4
15. Group Conferences	0.4	0.6	0.3	0.4	0.5	0.5
16. Other Conferences	1.5	2.1	1.6	1.2	1.3	2.5
Total Nursing Activities	72.9	70.5	73.7	72.6	71.8	74.7
B. Non-Nursing						
4. Preparation for M.D. Session	2.6	4.1	2.3	2.4	2.7	2.7
5. Setting Up for M.D. Session	1.5	1.3	1.6	1.6	1.3	1.6
17. Clerical and Related Work	18.9	18.1	19.0	19.0	19.6	17.6
18. Counting Pending Case Load	1.6	3.4	1.4	1.7	1.3	1.1
Total Non-Nursing Activities	24.6	26.9	24.3	24.7	24.9	23.2
C. Nursing and Non-Nursing						
7. Scheduling Teacher-Nurse Conference	0.7	0.4	0.5	0.7	0.9	0.8
D. Other						
19. Personal	1.8	2.2	1.4	1.9	2.3	1.3
20. Fire Drill and Civil Defense Drill	0.0	-	0.1	0.1	0.1	-

and pupils is not as easy to establish as it is in elementary schools. However, in the smallest schools nurses averaged less than one full day a week. This raises the interesting question of whether the nurses who are so limited in time are more aware of ways to share responsibilities with teachers. Have they developed particular technics and approaches, so that teachers are more willing and able to accept first aid and daily inspections, thus freeing the nurses for the type of work which should have a high priority rank in nursing service? (In New York City all teachers are required to complete a

standard course in first aid.)

With very few exceptions it took nurses about the same number of minutes to perform an activity at any time it was done, regardless of the size of school (Table 2). This information could be helpful in program planning. Again, questions arise. For example, it was found that a nurse saw about 10 children a day for follow-up and she spent about five minutes with each child. In this agency the Manual of School Procedures defines follow-up as including a discussion of a child's health needs, health guidance, referral for care, and related instructions. However,

other directives for tabulating daily activities, required of all nurses, define follow-up as children who have been requested by the nurse to see her in the medical room. It may be then, that what is a clerical routine of getting a medical report returned to the nurse is being construed as a nursing follow-up.

Table 2 illustrates the average number of minutes the public health nurse spent in the performance of any one of the categories of activities which are descriptive of the work the nurse could be doing in school at any time. It should be noted that the public health nurse

would not be doing all of these activities in any one day. She may do some part of all of them, or she may do any combination of several of these activities. Due to the fact that it would be nearly impossible to decide upon the activities for a typical day's work, the investigators felt that no attempt should be made to approach the analysis of the data from this study on the basis of a single day's work. Since normal school hours are from 9 a.m. to 3 p.m., it is rare that a nurse would spend more than five hours on any day in school. There are instances when a nurse may spend six

Table 2—Average Number of Minutes Used by Public Health Nurses in the Performance of Each Activity by Size of School

Activity	Minutes Used in Each Activity According to Registration of Schools					
	All Schools	Under 500	500-999	1,000-1,499	1,500-1,999	Over 2,000
A. Nursing Activities						
1. Daily Inspections	30	14	27	31	35	38
2. First Aid and Emergency Referral	22	15	21	20	24	27
3. Organization of Work for M.D.	29	27	30	28	33	26
6. Assisting at M.D. Session	111	126	116	107	113	105
8. Organization of Work						
Teacher-Nurse Conference	24	18	23	26	23	24
9. Teacher-Nurse Conference	65	63	66	65	67	58
10. Follow-Up of Teacher-Nurse Conference	29	28	30	31	26	24
11. Nurse Follow-Up	49	41	48	51	52	42
12. Parent-Nurse Conference	32	34	32	33	29	36
13. Conference Relating to School						
Health Program	27	29	26	26	27	25
14. Conference with Outside Agencies	18	19	18	18	11	20
15. Group Conferences	31	38	25	34	27	43
16. Other Conferences	19	20	19	17	17	23
B. Non-Nursing Activities						
4. Preparation for M.D. Session	31	37	35	29	33	25
5. Setting Up M.D. Session	17	15	17	16	16	17
17. Clerical and Related Work	54	47	53	55	56	53
18. Counting Pending File	28	20	25	32	42	32
C. Nursing and Non-Nursing						
7. Scheduling Teacher-Nurse Conference	14	14	12	14	14	20
D. Other						
19. Personal	13	15	12	13	14	15
20. Fire Drill and Air Raid	11	-	11	8	20	-
21. Lunch	60	60	60	60	60	60
22. Unknown	25	26	25	25	25	23

to seven hours in school, but this is due to unusual factors, such as double or triple sessions because of overcrowding, and is, therefore, not representative of a normal day's work in school.

When nurses participated in individual or group conferences related to pupils' health problems they spent from 11 to 43 minutes in any of these activities. But these were not occurring daily. Actually these three areas ranked lowest in the proportion of time spent in nursing activities. Compare these figures to clerical and related work which occurred daily and took from 47 to 56 minutes every day the nurse was in school. Although this item ranked third highest in the average number of minutes needed to perform it, when the logs were compiled it consumed the largest amount of time for all schools during the study. With the addition of the other non-nursing items the total was even greater. Yet it is constantly repeated that the school nurse is a member of a team. She is expected to work in a multidiscipline situation, in which she will use her professional knowledge and skills in helping solve the health problems of school children.

Public health assistants have only recently been used in New York City schools. There are still some schools that have never had this type of ancillary help. Their assignment may be on a regularly scheduled basis, whether it is once a week, twice a month, or more frequently. In this case the public health nurse knows she can plan on ancillary help at a specific time and can organize her work accordingly. On the other hand, an occasionally assigned public health assistant does not have a routine schedule of visits to school. However, during this study, she had been in school at least once. The nurse may or may not have known she was coming.

It was found that whenever ancillary help was available the nurses were able

to devote more time to nursing activities. This was most noticeable in the high registration groups, where public health assistants were present in ratios of more than 20 per cent of the nurses' time. In the smaller schools they were there only 8 to 11 per cent of the nurses' time. When ancillary help was given on a regularly planned basis there was a marked increase in the proportion of time the nurses spent in nursing activities. However, in those schools which had public health assistants on an occasional basis, more of the nurses' time was given to non-nursing activities than in those schools which never had ancillary help.

The question still to be answered is why, when public health assistants were assigned on either basis, did the nurses still spend from 21 to 28 per cent of their time in non-nursing activities? As a result of these findings several recommendations were made. Those which might be of general interest include:

¶ A qualitative review of all nursing activities in school to determine whether more might be shared with other school personnel or assigned to ancillary help. This should lead to a more discriminating use of nursing time for work which unquestionably should be done by the nurse. In this review it should also be considered whether the time available is sufficient to meet the objectives of the school health program.

¶ Ancillary help should be assigned on a scheduled basis and at a ratio of at least 20 per cent of the nursing time.

¶ There is an apparent need for more orientation for nurses working with ancillary help. Emphasis should be placed on the public health nurse acting as a team leader, delegating work but maintaining over-all responsibility. In this orientation consideration must be given to factors which influence the attitudes of nurses, doctors, teachers, and others.

¶ All manuals, directives, and other

written materials should be reviewed to eliminate conflict or confusion in the interpretation of various procedures. This should lead to a common understanding of the ways in which the staff should be functioning.

Areas suggested for further investigation include:

¶ A study of activities relating to case-finding and follow-up procedures to evaluate the effectiveness of the present methods and approach. Here some questions have been asked which specifically relate to this school system but there are also some questions that are of concern in any program: How long does it take to secure adequate supervision for a health problem and which activities are most successful in obtain-

ing this follow up? Once a health problem has been placed under medical supervision, how much further follow-up is necessary? What is the optimum proportion of nursing time needed for case finding and follow-up in order to meet the objectives of the school health program?

¶ A study of activities of ancillary help to determine how their time may be used most effectively.

¶ A study to determine what knowledge and skills public health nurses need in order to function most effectively in a school health program.

REFERENCE

1. Cohart, Edward M., and Willard, William R. A Time Study Method for Public Health. *Pub. Health Rep.* 70:570-580 (June), 1955.

Third Crumbine Awards Competition

The Public Health Committee of the Paper Cup and Container Institute has announced the opening of the 1958 Fourth Annual Samuel J. Crumbine Award Competition for programs conducted in 1957. The two separate awards are for "outstanding achievement in the development of eating and drinking sanitation" and "in the development of a comprehensive program of environmental sanitation by a local health department." Requirements are the same as in previous years, and no department that has won an award may compete for the same award again. Previous winners may, however, try for the award which they have not won. All entries must be completed by March 1, 1958.

Entry blanks may be obtained from Crumbine Awards Jury, Room 1025, 250 Park Avenue, New York 17, N. Y.