

Why is
she away?

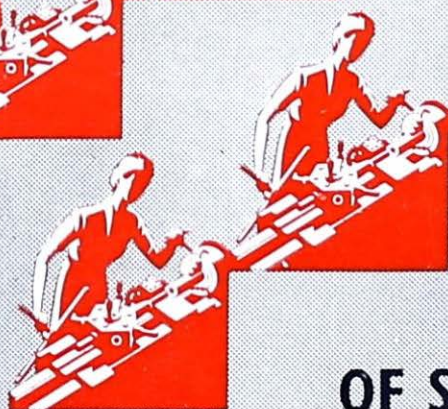
The Problem
of sickness among
Women in Industry

WHY IS SHE AWAY

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THE PROBLEM OF SICKNESS AMONG WOMEN IN INDUSTRY

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The efficiency of industry and the well being of the whole country depend very largely on the health of women workers



WHY IS SHE AWAY?

THE PROBLEM OF SICKNESS AMONG WOMEN IN INDUSTRY

During the war, casual absenteeism has provoked more interest and discussion, both inside and outside industry, than absence through illness. Yet one-half to two-thirds of the total time lost is usually due to illness. One reason for this comparative indifference to sickness absence may be that many people still tend to look on an illness as an unavoidable misfortune. That a substantial amount is probably avoidable is, however, shown by the facts that sickness absence is much lower in some factories than in others, even though the work is similar, that it varies according to the hours and conditions of work, and that it is usually reduced by efficient medical and welfare services. In wartime, any improvement in industrial health, however small, may mean more arms for our fighting men and less suffering or discomfort for our working men and women. At all times, a high rate of illness in a factory or industry is a warning sign that something else may be wrong.

This pamphlet does not attempt to give a complete picture of the health of women in industry. That, unfortunately, is impossible, since the necessary information is not available. The majority of firms still do not keep sickness records, or else keep these records in such a variety of ways that no comparisons between one firm and another can be made. The first part of the pamphlet is based on an investigation carried out by the Industrial Health Research Board into the sickness absence of about 4,500 women, in five munition factories, during the last six months of 1942.* The total number of women employed in these factories was rather more than 20,000 (excluding those who entered or left during the six months); in each factory it ranged between approximately 2,500 and 9,000. The women were employed in making small arms ammunition, fuses, shell cases, guns and projectiles, and electrical equipment, and the sample of 4,500 was chosen in such a way as to be representative of the 20,000 employees. From a study of the illnesses of these women come some useful facts, although we cannot judge, as yet, how far these facts would apply to women in other industries. The analysis of their sickness absence shows what illnesses they had; also which illnesses were the longest and the most frequent, and which caused the greatest loss of time to production; it throws light on how sickness absence is affected by hours of work, by length of service and by age, and how the rates for married and single women differ.

* See "A Study of Certified Sickness Absence among Women in Industry," *Industr. Hlth. Res. Bd. Rep. No. 86. H.M. Stationery Office, 1944. (Price 9d., by post 10s.)*



In a further investigation*, which is discussed in the second part of this pamphlet, 500 women, 200 from one factory and 100 from each of the other three factories, were interviewed. These women described how they thought their health was affected by factory and home conditions, and by their personal problems. Their statements help us to fill in a wider picture of their states of health, for we must not forget that illness does not always result in absence from work. Half the women interviewed had had little or no sickness absence for at least six months, and the other half had had frequent or long illnesses. Each woman was interviewed singly, and in private, for half an hour or longer. All of them, and also the managements and the shop stewards' committees, were told about the purpose of the inquiry, and the women talked readily and frankly about themselves and their lives in the factory and at home. Without their friendly co-operation these interviews would have had no value.

By these two methods, of analysing records and talking to the workers, much information about the health of women in this group of factories has been collected, although further research is still urgently needed to widen the field of study. Since knowledge should lead to action, this information should be available to every man and woman who wishes to improve health and efficiency.

A knowledge of health in wartime has more than a temporary usefulness. In many respects wartime conditions intensify problems which exist in peacetime industry, but any measures which prevent or remedy illness during war will probably also be effective during peace. Also, unless we have accurate facts about the present incidence of sickness, we can have no standard by which to measure the improvement in health which we hope and expect to find in post-war industrial workers. Here then is a brief account of the main facts disclosed by the Industrial Health Research Board's investigations. Once again, it must be emphasised that the following figures and statements refer only to a definite number of women workers at a definite period of time. Results from other workers, in other factories, at other times would probably differ; indeed, one of the reasons why this pamphlet has been written is the hope that it will encourage other factories to keep and analyse their own records, and to make them available for comparison.

* See "A Study of Women on War Work in Four Factories," *Industr. Hlth. Res. Bd. Rep. No. 88.* H.M. Stationery Office, 1945. (Price 9d., by post 10d.).

PART I

RESULTS OBTAINED FROM ANALYSING THE RECORDS AMOUNT OF ILLNESS

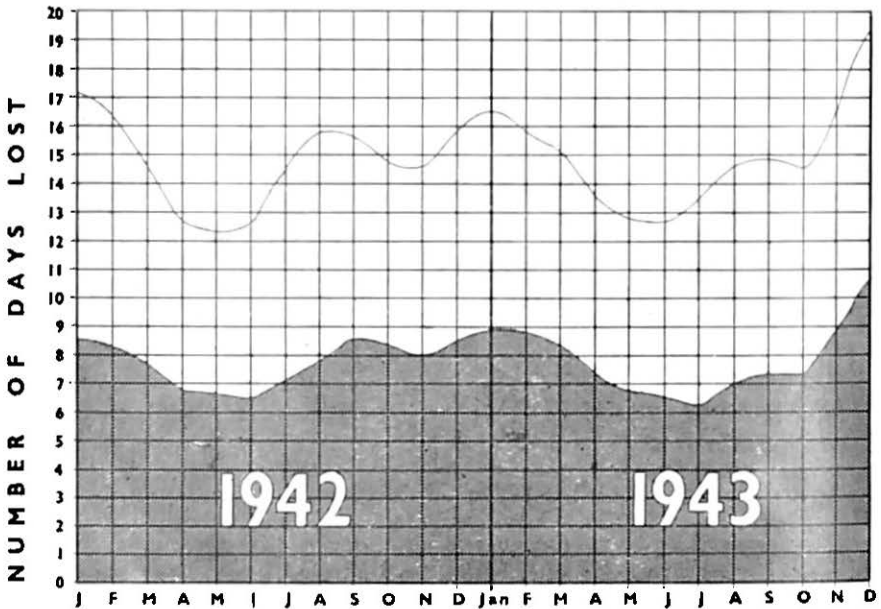
How Much Loss of Time does Illness Cause ?

In this investigation in the five factories, it was found that, in the last six months of 1942, 7.8 per cent. of the total working time was lost through illness. This is almost equivalent to losing one month in the year. Moreover, the figure is an under-estimate, since it is based solely on absences of two days or longer for which a doctor's certificate was produced. A considerable amount of time (usually reckoned at between 1.5 per cent. and 2.5 per cent.) is always lost through uncertified absences of one or two days for minor complaints, and this time is excluded. Also, in these calculations no account was taken of the records of the women who were discharged for medical or other reasons during the six months. If the illnesses of these women and also the short uncertified illnesses had been included, the total amount of time lost through illness would probably be at least 10 per cent.

The figures given here refer only to sickness absence, and by no means all ill-health results in absence. There is little doubt that many women continue working when, for health reasons, they should stay at home and rest ; some cannot afford to stay away, and others, for various reasons, are happier at work than at home. Also, many busy women try to avoid visiting their doctors, as they feel that they cannot afford the time involved, and therefore do not ask for the certificates to which they are probably entitled. These are some of the remarks made by women who admitted to working when they felt ill : " My husband's in Italy, and I want to work to get the war over. Anyway, I only worry when I'm alone, and that makes me feel worse." " I couldn't rest at home knowing there was all the washing to be done." " I can't let the girls on my group down except for something really serious. They don't make so much bonus if one of us is away."

The loss of 10 per cent. of time through illness must arouse serious concern. However, it cannot be put down entirely to the strain of war, as during the war there has of necessity been a gradual lowering of the standard of physical fitness of those accepted for employment, and a great increase in the numbers of older women and women with family responsibilities. Also, many wartime women recruits to industry have found the change from their previous occupations a strain, both physically and mentally. Nevertheless, the amount of illness is great enough to make us realise the need for action. Illness accounted for more than one-half of the total amount of time lost, and managers and workers who are attempting to reduce absence from

AVERAGE TIME LOST BY 33,000 WOMEN



■ SICKNESS AND ACCIDENTS 54% OF TOTAL TIME LOST

work at the present time should recognise that ill-health in women is the greatest and most urgent aspect of this problem.

Since this investigation covered only six months, it may be of interest, before considering the results further, to get some idea of the general trend of sickness absence over a longer period. Chart I shows the percentage of time lost by 33,500 women in 1942 and 1943, through all causes and through sickness. From this chart we can see that sickness absence, in every month, accounted for at least half the total absence, and that it varied according to the season. On an average 54 out of every 100 days' absence were caused by sickness or accidents.

The Main Types of Illness

One of the first things to discover is the types of illness from which the women suffered. Obviously we cannot take intelligent measures to reduce illness unless we know, for instance, how much of it is due to respiratory infections (colds and the like) and how much to digestive troubles. (It should be mentioned that the five factories were in widely different parts of the country, and their combined results are therefore not likely to be affected by local conditions of climate which sometimes favour a particular disease). The importance of a disease may be estimated in two ways—by the number of people who suffer from it and by the length of absence it usually causes, or, in other words, by its frequency and its severity.

a *Number of Cases of each Type of Illness*

For every hundred women there were, on an average, 84 cases of illness during the six months. This does not mean, of course, that 84 per cent. of the women were absent through illness, since some were absent more than once. Most of the time lost through sickness was caused by only a minority of the women workers. During these six months, 45 per cent. of the women were not absent at all through illness, and many of the others had only short illnesses, with the result that **two-thirds of the total amount of time lost through illness was caused by only 16 per cent. of the women.*** Thus special care and treatment of a comparatively small number of women might lead to a considerable reduction in the time lost to production through illness.

Colds, influenza, and other respiratory complaints, caused the greatest number (28.6 per cent.) of the total cases of illness. This is perhaps less surprising to many people than the fact that cases diagnosed as "nervous" and "fatigue" came second on the list, accounting for 17.5 per cent. of the total cases. Indeed, this figure is probably too low, and it is very likely that a number of cases diagnosed as "digestive" might better have been called "nervous," since much digestive trouble is due to worry or emotional stress. "Nerves" and "fatigue" probably accounted for about 20 per cent. of the cases, and this group and the respiratory group between them explained about half the total cases.

The figures given above refer to the period of six months only. The number in each group varied from month to month. The cases of colds and influenza followed the usual course; the first batch of colds appeared towards the end of September, followed by a temporary improvement, and then by a steady increase from November onwards. Other investigations have shown that the number usually continues to rise till February or March, when there is a sharp fall.

b *Length of Absences in each Type of Illness*

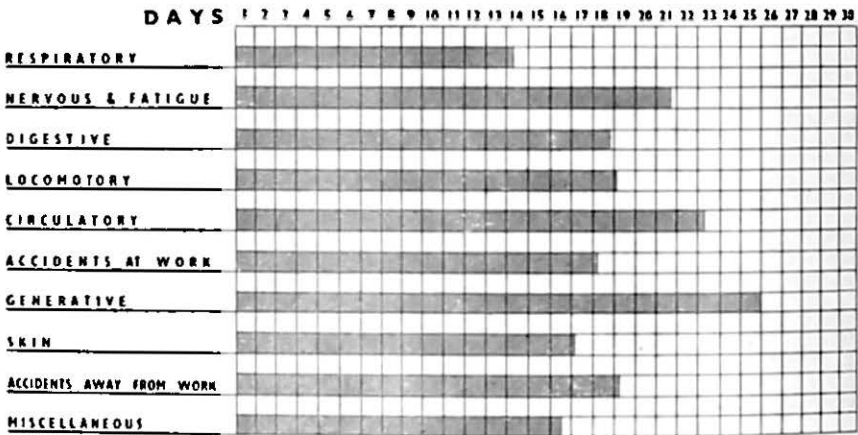
The severity of a disease may be roughly judged by the average length of absence it causes, and this may be seen in Chart 2.

Thus respiratory diseases, although the most common, were the shortest illnesses. The generative group of illnesses, which were almost the least common, were the longest. The "nervous" and "fatigue" group were second on the list for frequency and third for severity.

c *Effect on Output of each Type of Illness*

We have seen something of how these various diseases affect women workers, but, especially in wartime, we have to consider

* *Very similar conclusions have been reached by other investigators into sickness absence in pre-war industry, and also in wartime industry both in Britain and the U.S.A.*



LENGTH OF ABSENCE IN EACH TYPE OF ILLNESS

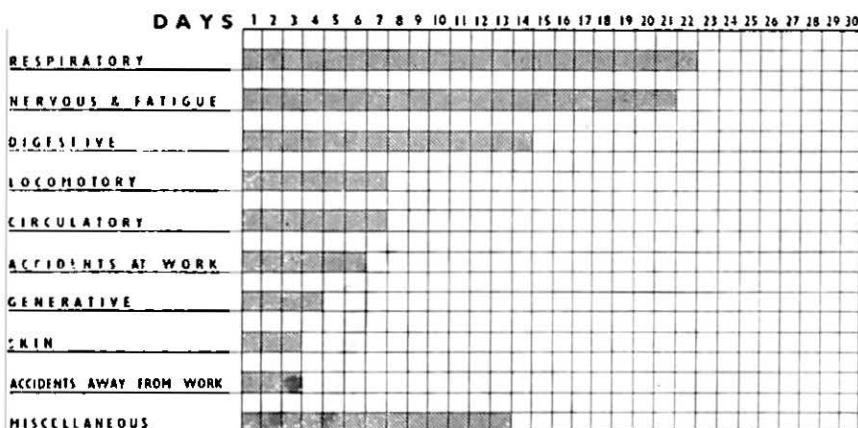
also how they affect output. In Chart 3 the diseases are arranged in order of their relative importance as causes of time lost to production : the chart shows what percentage of the total sickness absence in the six months' period was due to each of the different disease groups.

It is clear that there are three groups of diseases which far outweigh all others in importance as causes of time lost to production. These are the respiratory group, the "nervous" and "fatigue" group, and the digestive group. There is not space in this pamphlet to discuss these main diseases in any detail, but here are a few brief notes about them.

The best advice that can be given about any of these complaints is, first, to make sure that you observe the commonsense rules of hygiene. Cleanliness, well-balanced and, if possible, regular meals, enough sleep, and as much fresh air as you can get, are the first essentials. The healthier the body is, the better will it ward off and fight disease. However, if you have an apparently minor illness from which you do not recover as quickly or as completely as usual, it is better to consult a doctor without delay. You may be "run down", which means that the natural resources of your body are not adequate to deal with the disease, and need to be supplemented by medical treatment. Or you may have developed some serious complaint, which if not diagnosed and treated in its early stages, may cause trouble later. Fortunately, more and more people are coming to realise that a doctor's job is the prevention as well as the cure of illness, and that, for their own good, they should report sickness and accidents promptly.

Respiratory Diseases

There is, as yet, no good scientific evidence of any reliable cure for the common cold or influenza, or of any certain method of securing



PERCENTAGE OF TOTAL DAYS LOST THROUGH ILLNESS

COMPARE WITH PREVIOUS CHART

immunity. Many experiments have been made to test the effects of inoculations, vitamin capsules, quinine and other preparations, but the results have been disappointing. However, many people still have a favourite "remedy", and feel better after taking it, mainly, perhaps, because they expect to feel better: a more reasonable attitude, until medical science has found a proved preventive or cure, is to take precautions against catching or spreading infection. The "germs" of the cold and of influenza are air-borne, and good factory ventilation, by which the air is constantly changed and kept moving, is therefore most important.

Tuberculosis of the lungs is a more serious respiratory disease that may cause long absences. When living and working conditions, and diet, are good, it is less likely to occur: the importance of detecting it in its early stages, by chest radiography, is becoming appreciated by the public as well as by the medical profession.

Nervous Diseases and Fatigue

It is not surprising that many workers have been diagnosed as suffering from "nervous debility", "neurasthenia" or "industrial fatigue", particularly young married women and women who have been employed since the early days of the war. During war, almost every woman has a personal problem to worry her, and when, in addition, she has to spend long hours at arduous or boring work and has little holiday, the strain may result in a temporary breakdown in health. The comparatively great amount of illness among young married women is very largely caused by illness of the "nervous" type, and presents a serious problem, which is discussed later.

Feelings of strain and anxiety may sometimes arise from the temperament of the worker, and be largely irrational. This type of nervous

anxiety may show itself, for instance, in fear of being in a closed space or a crowd ; or, at work, it may take the form of apparently groundless dread of persons in authority, of taking responsibility and making decisions ; in other cases, it may result in over-scrupulousness and worry about unimportant details. It may have a variety of physical symptoms, such as headaches, indigestion and constipation, " fainting fits ", and " heart attacks ". Such anxiety cannot be dispelled by conscious effort of will, but often need not cause a breakdown if the job and daily routine can be selected or altered so as to suit the worker's temperament : for example, a woman with a " nervous " fear of responsibility might break down if given a job as a charge hand, but might be successful and happy as an operator. Many misfits, and much absence through " nervous debility ", might be avoided if those in authority had more knowledge of how " nervousness " affects a woman's attitude and her work, and, in consequence, dealt with it more intelligently.

" Nervous " or neurotic anxiety must not be confused with rational anxiety about, for instance, a husband who is wounded or a prisoner. This normal anxiety, which disappears when circumstances have become happier, is inevitably widespread in wartime ; it is less apt to affect a woman's health if she likes her work and feels it important, and if her companions and supervisors are sympathetic and tolerant of occasional irritability or depression. Mental strain uses up much energy, and is one of the main causes of fatigue.*

Digestive Diseases

As has already been said, many digestive disorders are due to anxiety, and would be more correctly diagnosed as " nervous " diseases. To feel literally " sick with fright " is an experience that most people have had at some time. A disordered stomach and bowels are common symptoms of fear, though fear is not always present to the conscious mind. Many " nervous " or " nery " people are unaware of the cause of their feelings of apprehension, and also do not realise that gastric troubles may result from these feelings. Thus the remarks made above on " nervous " diseases apply to some, though, of course, not all, of the diseases described as " digestive."

The effect of night work on the digestion is mentioned later, on page 17. It is sometimes thought that the preference of many night shift workers for " snacks," rather than a full meal, causes indigestion. However, much depends on the nature of the " snack," and it is in any case difficult to distinguish between cause and effect.

In this inquiry, the proportion of women who regularly used the factory canteen averaged 33.4 per cent., but it varied from 53 per cent. in one factory to only 16 per cent. in another. About half the regular users said they were satisfied, but here again there were great differences

* See " *Absence from Work: Prevention of Fatigue*," *Industr. Hlth. Res. Bd. Pamphlet No. 2. H.M. Stationery Office, 1944. (Price 3d., by post 4d.)*

between the factories. Some women were dissatisfied, or reluctant to use the canteen, because they were "faddy," or disliked eating in a crowd: others complained of the cooking, and of "messy" service and dirty crockery. The length of the meal break, often only thirty minutes, also made many women prefer to bring sandwiches, especially when, as in some factories, about half this time was taken up by walking to the canteen, or by queueing. The managements seemed to make little effort to encourage the workers to use the canteen, or to inform them about the need for a balanced diet. There seemed little doubt that many women did not get the full benefit from the usually good and plentiful food supplied, and would have suffered less indigestion, and been better nourished, if they had been able to enjoy less hurried meals in more pleasant surroundings.

SICKNESS ABSENCE AND AGE AMONG MARRIED AND SINGLE WOMEN

It is often popularly supposed that as women get older they lose more and more time through sickness. However, the relation between age and the *amount* of sickness absence depends very largely on whether a woman is married or single, and we must consider married and single women separately.

Until they reach the age of about thirty, both married and single women had increasingly frequent, though not increasingly long illnesses; women over thirty, on the other hand, tended to be absent less and less often, but for longer periods.

Married women were absent much more frequently than single women of the same age, and lost, on an average, far more time through illness. These differences were particularly striking in the younger age groups. For instance, married women under twenty-five years of age lost nearly twice as much time as single women of the same age, partly because they were away more often and partly because they had longer illnesses. Among women between the ages of thirty-five and forty, married women lost only 20 per cent. more time than single women and, unlike the younger women, had shorter, not longer, illnesses. The general tendency was for the amount of sickness absence of single women to increase gradually as they got older; for married women the opposite effect was found. Those under twenty-five years of age had a high rate of sickness (more than twice that of single girls of the same age) and with increasing age sickness incidence became less.

Some of the probable reasons for the high rate of sickness absence among young married women and for their proneness to illnesses diagnosed as "nervous," "fatigue," and digestive disorders were disclosed by the women who were interviewed: they are discussed in Part II of this pamphlet, in the section "Sickness absence and life outside the factory."

SICKNESS ABSENCE AND LENGTH OF SERVICE

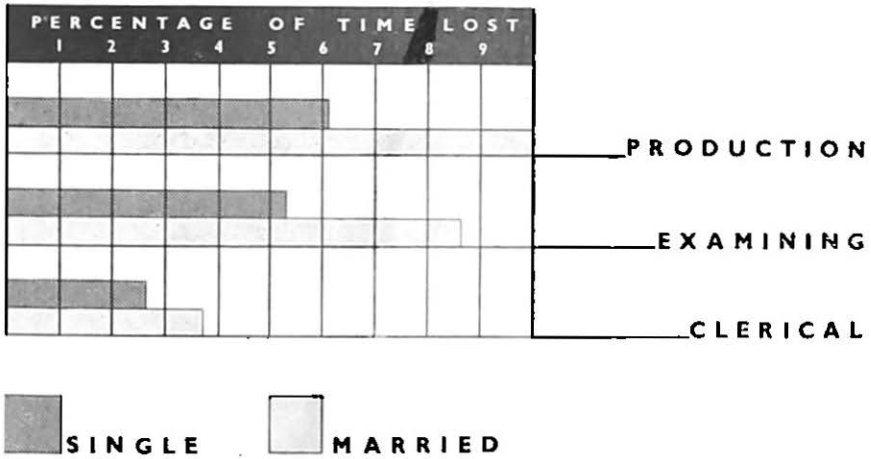
At the time of this inquiry very few women in any of these five factories had been in their present jobs for more than three years, as all the factories had been either started or greatly expanded since the outbreak of war. It was therefore not possible to compare their peacetime with their wartime records. In order to see whether length of service affected sickness absence, the women were divided into three groups. The group with the longest service (Group I) had been employed for over two years, and had worked through the "Dunkirk" period, when the hours of work in many factories were from 70 to 75 a week, and when provisions for the welfare of the workers, and for transport, were often inadequate. The middle group (Group II) had been employed for one to two years; it included some women who had been through the reduced, but still considerable, strains of the later part of 1940, and also some of the first conscripts of 1941. Group III, those with under a year of service, contained an increasing number of volunteers and conscripts from non-industrial work. Thus Group I had had not only the longest service but also the most trying work in the past. On the other hand, many of Group III, although employed for a shorter time, were less accustomed and sometimes less suited to factory life.

A comparison of the sickness of these three groups shows that Group I lost more time, and had considerably longer absences, than the groups with shorter service, especially through "nerves" and "fatigue." These differences however, fail to show the full effects of wartime conditions of work on health, and would have been much more marked if the groups had otherwise been more similar. The women in Group I had been engaged at a time when the physical standards for employment were higher than later in the war, and since with every additional year of service an increasing number of them had left for health reasons, this group was, by health standards, the most highly selected.

SICKNESS ABSENCE AND WORKING CONDITIONS

The many different jobs on which the women were employed may be divided into three main groups—production, examining and clerical. A comparison of the sickness absence of the women according to their type of occupation shows that production workers had slightly more absence than examiners, and that both had more than twice as much as clerical workers. Chart 4 shows the differences in sickness absence between the three groups.

AMOUNT OF SICKNESS ABSENCE IN DIFFERENT OCCUPATIONS



To some extent, these differences in sickness undoubtedly reflect differences in the type of work and in working conditions. Most of the production workers were engaged on medium or light machine operations, although a few were doing fairly heavy machine work and some were on handwork. The work of the examiners, on the other hand, was not physically tiring, although it was often mentally exacting because of the need for discrimination and judgment and for constant attention to fine details. The clerical workers usually had more varied jobs than the production workers or examiners, and worked at a far more leisurely speed, with many opportunities for unofficial rests and changes of posture: they were therefore much less liable to fatigue, boredom and strain. Compared with clerical workers, both operators and examiners worked at high pressure; this was partly due to stricter organisation and discipline, and partly, in the case of operators, to payment on the basis of the amount done rather than of the length of time worked. In one factory there were feelings of discontent and strain among some operators because of "tight" or unfair rates, and some women felt that the day was "one mad tear to make your bonus."

The working conditions in the offices were usually better than in the rest of the factory, and the hours of work were, on the whole, shorter and more convenient. Compared with operators and examiners, the clerical workers were younger and came from homes with a higher standard of living. Most of them had chosen clerical work as an occupation (although some had been directed to their present jobs), and so they were likely to be more contented and more suited to their work than many of the women who had volunteered or been conscripted from very different occupations to be operators or examiners. The examiners, to a lesser extent than the clerical workers, were also a

selected group, and this may have had some effect on their sickness absence.

The effect of the job and working conditions on health may also be seen from a comparison between different groups of production workers. In one factory, women in the case-making department had three times more sickness absence than those in the loading department. In this inquiry, no detailed study was made of the reasons for these departmental differences, which are mentioned mainly to draw attention to their existence. If factory records are analysed according to departments, or groups of workers, many unsuspected causes of ill-health are often revealed.

The Factories Act (1937) and other regulations lay down minimum standards required for many conditions, for instance, for ventilation and lighting.* There is not space to summarise here all the work that had been done on the effects of working conditions on health. Some of the more important conditions to which attention should be given are ventilation, heating, lighting, seating, design and speed of machines, and lay-out and flow of work. These material conditions, important as they are, are not the only kind of working conditions that influence health and efficiency. For every individual in a factory, people as well as things are part of the background: fellow workers, foremen, managers, are all "working conditions." Thus, a foreman with a badly-regulated temper can cause as much discomfort as a heating plant with a badly regulated furnace.

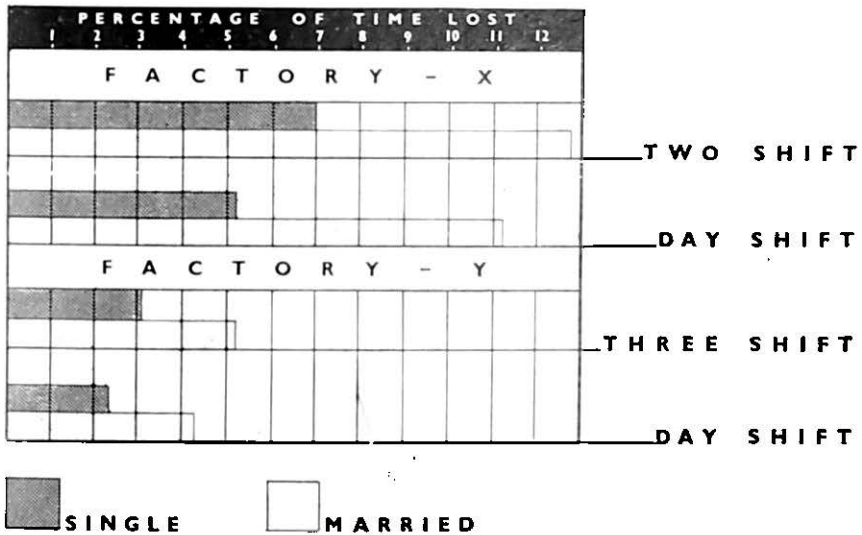
SICKNESS ABSENCE AND SHIFT SYSTEMS

Although many of these women had worked excessive hours during the early part of the war, their weekly hours of work had been gradually reduced and, with one or two exceptions, were not unreasonably long. The main complaints of the women themselves were not about the number of hours worked in the week, but about the arrangement of hours in the different shift systems. Thus, in attempting to relate sickness to hours of work, the main questions which arose were, firstly, "How do two- and three-shift systems compare with regular day work?" ; and secondly, "If shift systems are necessary, or desirable, how should they best be arranged?" These questions cannot be fully answered until further research has been done, but we have some indications of the probable answers.

It is usually difficult to compare shift workers with day workers, as their working conditions and jobs are generally also very different. In the only two factories where a comparison could be made, it was found that shift workers, both married and single, had more sickness absence than regular day workers in the same factory (Chart 5). In one

* See "Ventilation and Heating: Lighting and Seeing," *Industr. Hlth. Res. Bd Pamphlet No. 1*. H.M. Stationery Office, 1944. (Price 3d., by post 4d.)

AMOUNT OF SICKNESS ABSENCE AMONG WOMEN EMPLOYED ON DIFFERENT SHIFT SYSTEMS



of these factories there was a three-shift system (morning, afternoon and night) and in the other a two-shift system (day and night). The figures refer only to some 1,900 women, and are by no means conclusive evidence. However, if shift systems had no ill effects, we should expect the day workers to have more illness than shift workers, who are selected more carefully on grounds of health.

Shifts, even if causing slightly more illness than regular day work, are necessary in wartime, and over 70 per cent. of the women in these factories were working on some kind of shift system. In some industries, shifts are necessary also in peacetime, and any information we can obtain about how best to lessen or remove any ill effects has more than a passing interest. It is unlikely that the effects of shifts, and of night work, differ fundamentally according to the sex of the worker, although they possibly show themselves more quickly and more markedly on women than on men. In these five factories there was considerable variation in the arrangement of shifts, and it is unlikely that all methods were equally good either for health or efficiency. Although it was unfortunately not possible to make a comparison between the records of one factory and another, many indications as to how shift systems affect health were obtained from the workers' own accounts of their feelings, and of their particular likes and dislikes.

PART 2

RESULTS OF ANALYSING INTERVIEWS WITH WORKERS

In this pamphlet it is not intended to give a complete summary of the statements of the women who were interviewed, but rather to deal only with those which can be shown to have some bearing on health. Before discussing the women's views on shift systems, and on other problems, it may be as well to emphasise the value of their opinions.

Feelings and attitudes are important, even if the facts do not always justify them, since they influence the way people behave: for instance, when a woman says, "I always feel tired out on the Sunday morning shift," she may really be bored, not tired, because she looks on Sunday as a day for rest or enjoyment. But the effects of boredom and discontent on health and efficiency are often indistinguishable from the effects of true fatigue. Minor ill-health, such as headaches, which may or may not lead eventually to absence, is usually accompanied by lowered efficiency and lack of enjoyment of work.

OPINIONS ON SHIFT WORK

a *Frequency of Shift Changes*

Shifts were changed weekly at most of the factories, and the great majority (at least 85 per cent.) of women were satisfied with this arrangement, and did not like the idea of having longer than a week on each shift. In their opinion, each shift had some particular disadvantage; many disliked the early rising on the morning shift, although on the whole this was by far the most popular shift; they disliked also the lack of free evenings and the lateness of going to bed on the afternoon shift, and the reversal of habits, and the feelings of fatigue, on the night shift. They felt that these discomforts could be put up with for a week, but not for longer. The minority who would like a longer period on each shift made comments such as, "It's difficult to settle down in a week. We're just doing it by Thursday," and, "A weekly change upsets the stomach and sleeping." Some of those who preferred the weekly change also complained of indigestion and sleeplessness, but thought that these discomforts were lesser evils. One of them said, "It probably would be less tiring in some ways, but I can't go out with my boy friend on the afternoon shift, and I'd get terribly browned off if that lasted for longer than a week," and another remarked: "I certainly get less indigestion at the end of the week, but I'd rather have indigestion than longer on 'nights'. I can never sleep properly on 'nights' because of the children playing."

The workers who changed shifts fortnightly made fewer complaints of inability to sleep and of gastric troubles than those who changed weekly. However, most women preferred the conditions they were used to, and had no experience of other methods. The undoubted physiological advantages of infrequent changes were, for these women, sometimes counterbalanced by the practical and psychological difficulties involved. Scientific experiment and investigation are needed before we can determine the best length of time before changing shifts in industry.

Work at Week-Ends

All three-shift systems entailed some work at week-ends, usually a Saturday morning and a Sunday afternoon and night. Week-end work was seldom liked, but if the sequence of shifts allowed of a week-end break which included Saturday, or at least Saturday afternoon, the majority of women had no serious grumbles. The value of a week-end break, even when the total weekly hours of work are short, in improving output, health and morale, is apparently still not always realised.

In some factories, one week-end break out of the three was so short that the women felt that they worked for a fortnight on end. In one case, the women stopped work, after the morning shift, at 4 p.m. on Saturday and returned at 9 p.m. on Sunday to start the night shift work. (On all days except Saturday, the morning shift ended at 2 p.m., and the later stopping on Saturday was made possible by there being no afternoon shift on that day.) Almost all the women disliked this arrangement intensely, and these are some of the reasons given :

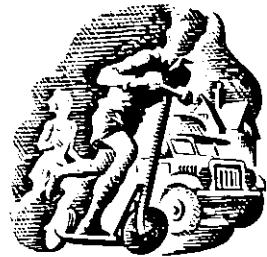
“ It’s impossible to shop so late on Saturday. It’s one mad rush, and everything is sold out.”

“ I can’t manage the house and children with a fortnight’s work on end.”

“ I don’t like the long fortnight. It takes the beauty off the morning shift, and you start the night shift feeling tired.”

“ It would be worth losing wages to have the Sunday night shift off.”

“ About half-way through the week on the morning shift, the thought of ‘ nights ’ begins to loom up. You know you’ll have to go straight on to ‘ nights ’ without a proper break, and you get bored and depressed in advance.”



This almost unbroken fortnight of work undoubtedly had bad effects on the workers, making them tired, bored and discontented, and possibly accounting for the high rate of casual absence on the Sunday night. A shorter working day on the Saturday—a small

concession that would have contented most of them—would almost certainly have resulted in no loss of output.

c *Night Work*

Although the employment of women on night work in factories in peacetime is forbidden, there is little scientific evidence as to whether, or in what ways, it has a bad effect on health. As we have seen, the results of this inquiry suggest that shift workers have more absence through sickness than regular day workers. It is possibly the night work involved in shift systems that is the main cause of this increased sickness; if so, the statements of the workers should provide some clues as to the nature of the effects of night work, and the proportion of women who suffer from them.

Only about one-third of the women interviewed strongly disliked the night shift; just under a third said that they definitely liked it, or, at any rate, felt that it was "no different from any other shift," and the remaining third were, on the whole, indifferent, although many of them liked or disliked particular features of night work. There was no significant difference between the proportions of married and single women who liked or disliked night work.

The women gave three main reasons for liking the night shift. The reason given most frequently was that it was more convenient or pleasant to have the day free.

"Night work gives you a chance to do jobs you can't do when on day work. There's more time for shopping, and you can do things much easier."

"The night shift gives you a free afternoon and early evening. It seems to give more time off, when you can do things."

Secondly, some women preferred the comparative quietness of the factory at night.

"I like the night shift, as I work alone then, and you are able to think. It's funny, the things that come into your head."

"I like the night shift because I can work better. It is quieter, and there are fewer bosses."

The third main reason for liking the night shift was the ability to sleep well during the day. This reason was given by 10 per cent. of all the shift workers. Among other reasons given was the higher wages, but very few women (only 2 per cent.) mentioned this. The apparent lack of interest in the higher rate of pay on the night shift may be partly explained by the fact that most three-shift workers budget for a three-weekly, not a weekly, period, but the main reason was probably that for many women wages were of secondary importance in determining whether they liked their jobs and hours of work.

Dislikes of the night shift were mentioned more than twice as often as likes, and were described at least twice as fully and expressively. (This does not mean, of course, that dislikes were necessarily twice as strong as likes. Most people talk more forcefully and dramatically when the subject of conversation is

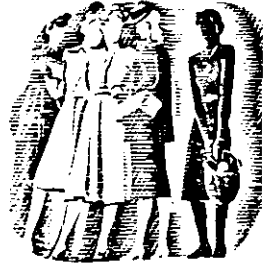
unpleasant.) By far the most widely held reason for disliking the night shift was the inability to sleep well during the day, and the consequent feeling of tiredness or sleepiness during the night. Most of the women thought that their broken or short hours of sleep were due to the reversal of natural habits, saying:

“ I can't sleep well by day. It's unnatural.”

“ I get up at mid-day to shop as I can't sleep. It makes me very tired and depressed, and I go to sleep at the bench.”

“ I have to have a night off about Wednesday to catch up with sleep.”

Others complained of noise—of traffic, children playing, people talking, and of other people's wireless. Many women, particularly the married women, spent less than six hours in bed, in some cases because they had housework and shopping to do, and in others because they could not sleep and became restless. The average person probably needs from six to eight hours' sleep to keep reasonably fit and fresh for work, but at least 40 per cent. of the three-shift workers spent less than six hours in bed and therefore could not have been at their best on the night shift. The connection between sleep and health was shown by the many complaints of these women of headaches and fatigue, and also by the fact that they had more sickness absence than those who had more than six hours in bed.



Atmospheric conditions on the night shift gave rise to far more complaints than on the other two shifts. The frequent mention of “ stuffiness ” and “ lack of air,” and of uncomfortably hot or cold temperatures, indicated that, at least in some factories, ventilation in the black-out still needed considerable improvement. One woman said, “ It doesn't matter how much sleep you have, you still feel tired. It's the poor ventilation, and you can't stay awake.” Good ventilation is even more necessary at night than during the day, and with recent improvements in equipment, there is no excuse, except in rare instances, for not providing it. It assists both health and output.

About 13 per cent. of the women said that the night shift caused digestive troubles and loss of appetite. (“ I always have a sickly feeling. It is wrong to eat at night and sleep by day, and I feel quite jiggered up.”) The great majority (78 per cent.) preferred a light meal, usually sandwiches and tea, to a full canteen dinner. This investigation supported the widely held opinion that night work has disturbing effects on the digestion of many workers, but further research is still needed on this important subject.

In three factories the hours were much longer on the night shift than on the other two shifts, and, as a result, some women found the night work very tiring and boring. The worst time for sleepiness

was between 2 a.m. and 3 a.m. At this time, "You feel very depressed and could sit down and cry. Everyone seems to be against you." The remedy most often suggested was music, since "cheerful music like marches and songs would break the time and make it fly." The longer hours also caused bodily fatigue, such as aching legs and arms, in women doing heavy or standing work.

Thus the attitude to the night shift varied from definite like to intense dislike. Those who disliked it referred repeatedly to headaches, depression, tiredness, sleeplessness and gastric trouble. In some cases, these unpleasant symptoms may have been aggravated or directly caused by the reversal of normal eating and sleeping habits. In other women, they were probably due mainly to personal or home conditions, rather than to the night work; if poor health, anxiety or unsatisfactory living conditions had already set up a strain, which the added burden of night work made unendurable, minor ill-health developed into illness and absence.

The effects of night work were by no means only physical but often caused unhappiness, worry and irritation because of the disturbance of family life. Several women had "difficult" husbands who expected mid-day meals, and objected to the clash in the hours of work; a woman who is tired through lack of sleep will very likely herself be "difficult" too, and make the situation worse. The conflict between family life and work was felt by many women, even on regular day work, and was usually more intense on the night shift than at other times.

There is little doubt that night work lowered the efficiency and health of some people, so that sooner or later they became a drag on production, or even casualties. It is almost equally certain that most of them could have worked satisfactorily and had less illness if transferred to a regular day shift. At present there are no scientific tests for selecting the workers who are most fitted for night work; the worker's state of health, particularly as regards digestion and ability to sleep, and also the family situation, are, so far, the best guides to predicting suitability. The ability to adjust successfully to night work also depends on the temperament of the worker, since some people are particularly liable to be upset, both mentally and physically, by changes in their normal routine.

SICKNESS ABSENCE AND LIFE OUTSIDE THE FACTORY

Any account of the health of women in industry must be incomplete and one-sided if women are looked on solely as "workers," instead of as "persons." Work and conditions inside the factory interact with those outside it, and it is often difficult to decide whether the factory or the home life is primarily responsible for a breakdown in health. Since jobs and conditions are more easily changed in the factory than in the home, it is important to see that, so far as possible, they suit

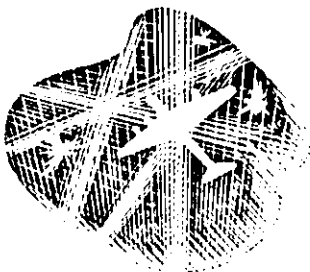
individual needs and circumstances. In wartime, factory managers have found that they cannot afford to be indifferent to the world outside the factory gate ; production suffers if transport is bad, or if workers are uncomfortably billeted, or have no nurseries for their children. In peacetime, also, efficiency, like peace itself, is indivisible.

The inquiry showed that in many ways life outside the factory at that time presented fewer problems to the woman worker than it did in the earlier days of the war. Transport services were more efficient and gave rise to far fewer complaints. There had also been a gradual increase both in the amount of time available for recreation, and in willingness to make the best of wartime restrictions. However, some workers were still working overlong or unsuitable hours, with unfortunate effects on their health, efficiency and morale. The women with the most sickness absence, especially the married women and those with long journeys, were particularly dissatisfied with the small amount of time usually available for leisure and work at home.

In these factories the number of imported workers was small, and the problems of hostel life or billeting did not arise to any serious extent. About half the married women had children under fourteen years of age, but most of them had made satisfactory arrangements for the younger children to be cared for. The shopping problem had been eased by the shorter hours of work and the improvement in the distribution of supplies to the retailers. Housework remained a difficulty, as most women did not like to lower their pre-war standards. Although home difficulties were less serious than previously, they still presented a problem to about two-thirds of the married women, and to one-third of the single women ; and women with full household responsibilities had more than the average amount of sickness absence. The practical problems of housekeeping were not the only, or the most important, home difficulties of women workers, and probably had less effect on their health than anxiety or unhappiness connected with their family life. For instance, about one-third of the married women were living with parents or relatives, and many found this a strain, sometimes because they disliked being still treated as children by their parents, and sometimes because their parents were old or infirm and gave them added responsibility. Complaints of difficulties in living with parents were made almost twice as frequently by married women as by single women. (These complaints were, of course, not universal, and many women, both married and single, said: "I could never have carried on if it hadn't been for my Mum and all she does for me.")

About half the women had some personal worry connected with life outside the factory. The most frequent cause of anxiety was husbands or sweethearts overseas (18.4 per cent. of the women) ; next came worry about their own health, or the health of a member of the family (14.6 per cent. of the women), and then housekeeping difficulties or unhappiness at home (12.2 per cent. of the women). The relation between worry and physical health was shown clearly in the sickness absence records : for instance, of the women who had serious worries,

62 per cent. were in the group with the most sickness. The cheerfulness and endurance of many women war workers are qualities which, perhaps because they are undramatic, are seldom adequately honoured. Monotony, loneliness and worry, often for years on end, are hard tests of courage. Here are some remarks made by these women, reminders of the personal difficulties and tragedies which affected their sickness absence :



“My boy friend goes out on these raids to Germany. I worry myself ill over him. I could cry any time.”

“My husband has been discharged from the R.A.F. for neurosis, and I don't know what to do to get him better. He is so listless and depressed.”

“The raids worry me terribly. We were bombed out in 1940, and the warnings make me actually sick.”

“My mother has re-married and had a baby. We have begun to quarrel, because my husband came home, and she is jealous because her husband is away.”

“My husband's a prisoner in Germany. Sometimes I feel I could cry and scream.”

Personal problems are, of course, more numerous, varied and severe in war than in peace, and it is not surprising that some women broke down under the strain.

On the whole, it was the young married women who seemed to suffer most from emotional strain. Many of those with husbands in the Forces were anxious and lonely : they felt insecure, and were therefore liable to be “nervy” and easily irritated or distressed. The older married women also had their problems, but, in many cases, experience and more stable and satisfying personal lives had given them a more philosophical outlook. The high proportion of “nervous” and digestive illnesses among young married women suggested that much of their ill-health was psychological in origin, and their own accounts of their lives and feelings fully confirmed this.

One of the worries mentioned above was worry about health, and the group of women with most sickness absence contained a greater proportion of women who said they had had poor, or only fair health before they entered the factory. These women would naturally feel the effects of factory work and conditions more quickly or more severely than women with a better health record. The women with most sickness absence also made more complaints of fatigue, but it is difficult to say whether they were ill because they were over-tired, or whether they felt tired because they were in any case in poor health. The three-shift workers said that they felt most tired at the end of the week on the night shift. Very few workers showed signs of a progressive increase in fatigue, but it must be remembered that those who were unable to stand their work had already been discharged.

SUMMARY

The following are some of the main facts which have been disclosed by these two investigations.

FROM THE RECORDS

The records covered a period of six months, in five factories, and are not a suitable basis for wide generalisations. There is an urgent need for industry to keep records of sickness absence on a wider and more uniform scale. This necessarily limited inquiry showed that :

1. 7.8 per cent. of the total working time was lost through sickness absence, and sickness absence accounted for at least half of the total time lost.
2. Two-thirds of the sickness absence was caused by only 16 per cent. of the workers.
3. The illnesses which caused most lost time were the respiratory, "nervous" and "fatigue," and digestive diseases.
4. Young married women had a particularly high rate of sickness absence, especially for "nervous" and digestive illnesses.
5. Women who had been working since the beginning of the war lost more time and had longer absences through sickness than women who had had shorter service.
6. There is some evidence that workers on production, and also shift workers, were particularly liable to sickness absence.

FROM THE INTERVIEWS

1. Most shift workers disliked the idea of changing from the arrangement of shifts to which they were accustomed.
2. The lack of a proper week-end break in shift work made the workers tired, bored and discontented.
3. Night work was definitely liked by one-third of the women, and also definitely disliked by one-third.
4. The main reasons for dislike of the night shift were the inability to sleep well, alleged poor ventilation in the factory at night, digestive troubles, longer hours, and the disturbance of family life.
5. Weekly hours of work were not overlong, except for a minority of workers, and it was the arrangement rather than the number of hours which caused most dissatisfaction.
6. Transport and domestic duties presented fewer problems than in the earlier days of the war, but women with full domestic responsibilities had more than the average amount of sickness absence.
7. About half the women had personal worries, and worry was associated with a high rate of sickness absence.

CONCLUSION

Some of the tendencies disclosed by this necessarily limited study of sickness absence merit serious attention. Firstly, it seems that, at least in these factories, the problem of ill-health is not a general one, since two-thirds of the sickness absence was caused by only 16 per cent. of the women. Medical and personnel departments would probably, therefore, be most successful in reducing sickness absence if they first concentrated on dealing with this small group of women. Careful medical examination might reveal in some cases the need for special medical treatment: the kind of jobs done by these women should be studied, to see whether they are causing either physical or mental strain: hours of work should, where necessary, be adapted or reduced, and sympathetic attention and advice given to individual troubles. Secondly, the question arises as to whether it is a wise policy to engage young married women on full-time work, since the majority of them undoubtedly have a very high rate of sickness absence. It may be that this problem is mainly due to wartime conditions, but that is no reason for ignoring it. Another problem is the strain being felt by those women who have been on their present jobs for three years or more: longer holidays and a wider use of Rest Break Houses seem urgently needed, and possibly a reduction of hours of work. There are also the problems of shift workers, and it should be possible to transfer to day work those women who now usually find shift work difficult: an adequate week-end break for shift workers is imperative. Finally, there still appears to be a need for educating women workers on the value of balanced and adequate meals, and considerable room for improvement in some factory canteens, and in the time allowed for meal breaks. The success or failure of any attempts to reduce sickness absence will depend very largely on the way in which such attempts are made. Many workers resent apparently arbitrary alterations in their hours or conditions of work, even when these are intended for their own benefit, and a policy of health education through committees on which workers are represented is the method that produces best results.

Efficient medical services in industry are essential for health, and will soon, we hope, be far more widely available than at present. But they are not enough, for health is affected by a person's whole background—by thoughts and feelings, as well as by working and living conditions. The task of improving health by treating the person, and not only the symptoms, is not easy. Such an approach to the problem demands co-operation and good feeling between workers, doctors and managements, and between them and the people responsible for houses, transport, schools and other social services. However, in wartime, difficulties far more formidable than these have been overcome by energy and enthusiasm. In peace, as in war, the efficiency of industry and the well-being of the country depend very largely on the health of women workers.

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