were not. Table II shows that 258 (about one in three) patients were thought to be suitable for hostel care. Only 41 per cent of the less handicapped SSN children (CAN) and only 49 per cent of the same category of SSN adults were thought to be suitable for hostel care. More surprisingly, 14 per cent of the more handicapped SSN children (CANT) and 23 per cent of the same category of adults were also thought to be suitable for such care. A hostel programme started some years ago is expanding, and many of the patients will be moving out of the hospital complex. We cannot, of course, be certain that the patients selected as possible candidates for hostel care will prove, in the event, to be good candidates. Much will depend on the fact that hostel is as hostel does.

TABLE II

Numbers of in-patients suitable or unsuitable for hospital care in terms of handicaps, age and grade

	Potential hostel candidates		Not potential hostel candidates		
	Can*	Can't†	Can*	Can't†	Total
Children SSN	9	22	13	130	174
MSN	3	—	—	1	4
Adults SSN	61	85	64	287	497
MSN	56	22	20	40	138

* Continent, ambulant, no severe behaviour disorder.

† Non-ambulant, severe behaviour disorder, severely incontinent, either singly or in combination.

May we summarize? The use of epidemiological data in the planning of services for the mentally subnormal is important. But great care must be taken to ensure that there are good grounds for assuming that the prevalence and other rates obtained in one region hold for another. If there is any doubt (and this letter shows that there may very well be doubts), it is worth the expense and time to carry out epidemiological investigations at a local level.

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REFERENCES

1. KUSHLICK, A. (1968). Ch. 5 in *Foundations of Child Psychiatry*, E. Miller (Ed.), Pergamon.
2. —— (1966). *Soc. Psychiat.*, **1**, 73.
3. KUSHLICK A. (1967). Paper to Conference 'Problems of assessing effectiveness of child health services', Warrenton, Virginia, March, 1967).
4. —— (1969). *Lancet, ii*, 1196
5. —— and Cox, G. (1968). Paper to Conference on Psychiatric Register, November, 1968.
6. —— (1968). International League of Societies for the Mentally Handicapped, Hebrew University, Jerusalem, October, 1968.
7. —— (1967). *Brit. Hosp. J. soc. Ser. Rev.*, October 1967.
8. MCKEOWN, T., and LECK, I. (1967). *Brit. med. J.*, **3**, 573.
9. —— and TERUEL, J. R. (1970). *Brit. J. prev. soc. Med.*, **24**, 116.
10. GOODMAN, N., and TIZARD, J. (1962). *Brit. med. J.*, **1**, 216.
11. KUSHLICK, A. (1960). *Report on Mental Health Services of the City of Salford*, Salford Health Department.
12. KUSHLICK, A. (1964). International Copenhagen Congress on the Scientific Study of Mental Retardation, **2**, 550.
13. CRAFT, M., and MILES, L. (1967). *Patterns of Care for the Subnormal*, Pergamon.
14. SCALLY, B. G., and MACKAY, D. N. (1964). *Ir. J. med. Sci.*, **6**, 267.
15. MACKAY, D. N. *J. ment. Defic Res.* In Press.
16. —— Submitted for publication.
17. —— and MCCOY, M. Submitted for publication.
18. —— and WEIR, T. W. H. (1970). *Lancet*, 788.
19. WINDLE, C. (1962). *Amer. J. ment. Defic.*, **66**, Monogr. Suppl. No. 5.
20. HARBISON, J. J. M., MACKAY, D. N., and WEIR, T. W. H. (1967). *Ir. J. med. Sci.*, **6**, 421.
21. SCALLY, B. G., and MACKAY, D. N. (1970). Unpublished Report to N.I.H.A.

DEAR SIR,

Drs. MacKay, Scally and Walby kindly sent me a pre-publication copy of their letter in this issue of the *Journal*.

I have since then had a brief opportunity to discuss things with D.N.M. and B.G.S. during a very recent visit to Muckamore Abbey. I will deal with the points they raise separately. However, before doing so I should like to make some general remarks.

I agree that great care should be taken before assuming that 'ascertained' or 'true' prevalence rates found in one area apply to other areas, and that where possible local surveys should be undertaken. However, the most interesting finding has been the extent to which prevalence rates found in different parts of the U.K. have agreed. Moreover, it might have been expected that while *overall* prevalence rates are similar, in-patient prevalence rates would differ considerably because of the many different policies being applied in different parts of the country.

Again the surprising findings has been the extent to which even these have agreed.

Thus, when talking about the country as a whole, I have quoted a 'true' prevalence of severe subnormality (SSN or IQ under 50) among children and young adults of just under 4/1000; 1·2/1000 of these are mongols who have survived, out of the expected 1·5 mongols born per 1,000 children born alive. Scally and MacKay's 1964 finding was within the above generalization. Their finding that the prevalence of mongolism in 1964 was as high as 1·45/1000 at age 15–19 was only reported in April 1970.

Only the finding of Drillien *et al.* has so far differed from this generalization (1). These workers found in Edinburgh a prevalence rate of 5·0/1000 aged 7½–14½; of these 1·8/1000 were mongols. As this prevalence rate for mongolism is higher than any *incidence* rates reported, it seems likely that selective migration to Edinburgh might be influencing these results.

I have pointed out that the prevalence of SSN adults is higher in the North than in the South of England, and I have suggested this might be partly due to a statistical artefact produced by differential migration—parents and families migrate south but mentally handicapped children in hospitals remain in the north (2).

However, before interpreting Scally and MacKay's new data, it will be necessary to study the survey methods in some detail to see whether the criteria are comparable with other surveys.

Between 1964 and 1970 the rate of notification and registration in Northern Ireland rose among both children and adults at all ages except 0–4. At certain ages the rise in rates was very high indeed. At age 30–39 the rise was 65 per cent. This can be seen on Table I made up from Tables III and IV in the draft copy of the 1970 report by Scally and MacKay (3).

Nor do the data appear to support the statement 'In Northern Ireland we can account for all but four SSN cases in a unit population of 100,000.'

Table I shows that on the basis of expected rates 4·2/1000, we would expect 1,954 children aged under 16 (about 130 per 100,000 total population of Northern Ireland). The numbers observed were approximately 1,383 (estimating 120 aged 15 years) or 92/100,000 i.e. 38/100,000 were missing. However, if the prevalence rate is 4·7/1,000 at 15–19 years, it is likely that the prevalence at earlier ages is *at least* 4·7/1,000. Therefore the numbers of SSN children expected in Northern Ireland population would be at least 2,192 or 146 per 100,000 total population i.e. 54/100,000 total population (146 less 92) were missing.

It is difficult to comment on this section without again going into some detail on the source data and the interpretations of the source data.

Looking superficially at Mackay *et al's* Table I, the remarkable thing, once again, is the similarity of the institutional rates per 100,000 total population in Wessex and Northern Ireland. We have always said that the demand for residential care places depends on many factors, including the strain on the families and the availability of residential care places or other facilities which might help the family and the handicapped person.

TABLE I

Prevalence of SSN people aged 0–39 in Northern Ireland 1964 and 1970.
Also shows: (a) % increase in rates, and (b) numbers expected at overall rates of 4·2/1000, and 4·7/1000

Age	Northern Ireland populations†		Observed SSN numbers		Observed SSN rates per 1,000 population		% rise in rates	Numbers expected at 4·2/1000		Numbers expected at 4·7/1000	
	1964	1970	1964	1970	1964	1970	1964–70				
0–4	156,000	153,000	166	162	1·1	1·0	−9	642		720	
5–9	136,000	153,000	464	544	3·4	3·6	6	642		720	
									1954		2192
10–14	131,300	134,300	476	557	3·6	4·1	14	564		633	
15		25,300*		120*				106*		119*	
15–19	125,500	126,500	506	594	4·0	4·7	18				
20–29	178,500	197,000	685	929	3·8	4·7	24				
30–39	170,000	167,000	346	549	2·0	3·3	65				

* estimated—one fifth of age group 15–19.
† estimated from raw data in Draft Report.

https://doi.org/10.1192/bjp.119.550.344 Published online by Cambridge University Press

Applying our simple formula of 25 children's places per 100,000 total population to Northern Ireland would have resulted in a shortfall of only 3 *not* 5 per 100,000, total population, i.e. a total for Northern Ireland of 45, *not* 75 places as MacKay *et al.* say. However, had they applied our even simpler formula, which takes account of the numbers of children in the total population, this problem would not have arisen. Thus, this formula calls for the provision of one place per 1,000 children under age 16 (4). Northern Ireland, with approximately 465 thousand children would, on this formula, require 465 places or about 31 places per 100,000 total population.

It is true that the *proportions* of people in institution appear very different:

(i) Forty-seven per cent (not 'over half') of ascertained SSN children in Wessex compared with 26 per cent (not 'one third') of ascertained SSN children in N. Ireland.

(ii) Sixty-one per cent of ascertained SSN adults in Wessex compared with 43 per cent in N. Ireland.

However, if the 'true' prevalence of SSN children in Wessex is 100/100,000 total population, and in N. Ireland is 146 per 100,000 total population, the 'true' proportions in institution are 20 per cent in Wessex and 15 per cent (22/146) in N. Ireland.

It is also suggested by MacKay *et al.* that if the characteristics of the SSN populations are the same in Wessex as in N. Ireland then family tolerance in Wessex is less than in N. Ireland. A decision on this will need a more detailed comparison of the abilities of the people.

Can one *ever* decide on a fixed proportion of residential care places in order to meet the need? I can see only one valid method of investigating this problem—this involves making a positively determined effort, using a fixed number of residential places, to bring the greatest relief to the families of the mentally handicapped in an area. We are using this method of evaluating new and existing units in Wessex.

An advantage of small flexibly designed and locally based units is that if one has over-provided they can always be used by some other clients; if one has underprovided, one merely builds another unit. Incidentally our experience in Southampton and Portsmouth is that demand does *not* appear just to go on rising in the presence of empty places.

(i) MacKay *et al.* report major differences in the objectively measured incapacities of hospital residents at Muckamore Abbey and those of the Wessex survey. Thus, they report that the category continent, ambulant and not suffering from severe behaviour disorder (CAN) were among the

SSN children — Wessex = 30%; M.A. = 12%
SSN adults — Wessex = 66%; M.A. = 25%
MSN adults — Wessex = 85%; M.A. = over half.

(ii) They conclude 'It is clear, therefore, that the numbers of in-patients *in this country* who are relatively free of physical handicaps and of behavioural abnormalities are fewer than those in Kushlick's survey.'

(iii) However, this conclusion is by no means clear:

(a) Is the MacKay *et al.* sample (i.e. Muckamore Abbey) representative of the whole of N. Ireland?
It is clear that the sample contained *only* 197 out of about 346 N. Ireland children in institutions, and *only* 617 out of 1,865 N. Ireland adults in institutions.
Of the 850 in-patients of Muckamore Abbey, the 814 (197 children plus 617 adults) were selected who were *not* on trial leave, *not* due for discharge and *not* in hospital on a temporary basis. (See draft (3) page 37.)

(b) Are the categories continent, ambulant and not suffering from severe behaviour disorder (i.e. CAN) the same in the Wessex and Muckamore Abbey survey? The evidence suggests that much of the difference reported between Wessex and Muckamore Abbey may arise from the definitions of the global category CAN; there is much greater agreement between Wessex and Muckamore on individual categories, though even here it is not known whether the definitions used were exactly the same.
The children: 34 per cent of Muckamore and 25 per cent of Wessex children were non-ambulant; 38 per cent of Muckamore and 30 per cent of Wessex children had severe behaviour disorders; 59 per cent of Muckamore and about 55 per cent of Wessex children were severely incontinent; 41 per cent of Muckamore and about 45 per cent of Wessex children were not severely incontinent.
The adults: 12 per cent of Muckamore and 6 per cent of Wessex adults were non-ambulant; 41 per cent of Muckamore and 14 per cent of Wessex adults had severe behaviour disorders; 20 per cent of Muckamore and about 14 per cent of Wessex adults were severely incontinent; 80 per cent of Muckamore and about 84 per cent of Wessex adults were *not* severely incontinent.

https://doi.org/10.1192/bjp.119.550.344 Published online by Cambridge University Press

It would be a simple and useful check if some Muckamore patients could be re-rated using Wessex scoring methods to see how comparable the residents really are. Until this has been checked, the conclusion must be in doubt that Muckamore Abbey in-patients (let alone Northern Ireland in-patients) have more disabilities than in-patients in the Wessex Region.

Criteria of Selection for Hostel or Hospital

The criterion for where a person should be 'treated' or 'cared for' depends entirely on his needs and those of his family, and where these can most easily and agreeably be met.

Our original division was *not* into the need for 'hostel' as opposed to 'hospital' care. It attempted to quantify the maximum numbers needing continuous 'medical' and 'nursing' care as well as 'residential care' and the minimum numbers needing *only* 'residential care' (4).

We have, however, always maintained that there is only one scientifically valid method of testing the hypotheses that 'people who are predicted to benefit from care in a locally-based residential unit will indeed do so,' and that 'persons who are predicted *not* to benefit from care in a locally-based residential unit will do poorly in such units'. This method is the experimental method.

Without experiment, the hypothesis cannot, by definition, ever be tested. Untestable hypotheses have not been particularly useful in the development of science.

In the Wessex experimental areas we are relocating *all* children from existing hospitals in locally-based units serving only these areas (5). So far, only one child out of 40 from a total population of 200,000 could not be so re-located. No child has so far had to be removed, and if the need arises, the reasons for so doing and the subsequent method of care made available will be documented in some detail. It is most important that someone undertakes a similar experiment to test the hypothesis that *all* SSN adults can be relocated in locally based units serving a population of about 50,000 and can be adequately cared for in such units.

Conclusion

The results of the Northern Ireland survey are of great interest. While there is every reason why they should differ very considerably from those found in Wessex and elsewhere in the U.K., the surprising finding is their similarity to other findings.

The main differences are a very much higher ascertained prevalence of SSN people in general. However, much the most interesting phenomenon which needs some explanation is the sudden rise in ascertained prevalence between ages 10–14 and up to 30–39 years.

Despite the higher total prevalence in Northern Ireland, the number of in-patients measured in rates per 100,000 total population for children, SSN adults and MSN adults is remarkably similar to that found in Wessex.

A detailed comparison of the incapacities of 814 Muckamore Abbey in patients appears to show some differences (more dependent) compared with those found among Wessex patients. Some evidence suggests that these differences may be more apparent than real, and arise from different use of category scores. This can easily be checked.

There is no substitute for local epidemiological surveys to assess local needs. Differences found in this way are also likely, if real, to throw light on new aetiological factors. The precise standardization of criteria of incapacity used in different studies would be helpful in making accurate comparisons.

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REFERENCES

1. DRILLIEN, C. M., JAMESON, S., and WILKINSON, E. M. (1966). 'Studies on mental handicap, Part I: Prevalence and distribution by clinical type and severity of defect.' *Arch. Dis. Childh.*, **41**, 528.
2. KUSHLICK, A., and COX, G. R. (1967). 'Ascertained prevalence of mental subnormality in the Wessex Region on 1st July, 1963.' Paper read at Montpellier Conference on the Scientific Study of Mental Retardation.
3. SCALLY, B. G., and MACKAY, D. N. 'Residential Care for the mentally subnormal (Muckamore Abbey). Report of a Survey.' Draft Copy.
4. KUSHLICK, A. (1969). 'Care of the mentally subnormal.' *Lancet*, 1196–7.
5. —— (1967). 'The Wessex experiment. Comprehensive care for the mentally subnormal.' *Brit. Hosp. J. and Soc. Serv. Rev.*, 6th October.

THE N.A.M.H. 'GUIDELINES'

DEAR SIR,

Up to now only two Members—and no Affiliates—have responded to the President's call for a wide-ranging discussion of this document.

I wonder if many feel as I do—namely that as far as nurses on the ward are concerned the 'Guidelines' will be of very little value. As a member of the General Nursing Council who helped to draw up the Mental and Mental Deficiency nursing syllabuses,