

The following reductions in isolation periods have therefore been made :—

For cerebro-spinal fever	From four weeks to two weeks.
For chickenpox ..	From three weeks to one week.
For measles ...	From two weeks to 1 week (if uncomplicated).
For diphtheria ..	From three weeks to two weeks (unless infection persists).
For enteric fever ..	From six weeks to four weeks, with more stringent bacteriological tests.
For poliomyelitis ..	From four weeks to three weeks.
For scarlet fever ..	From four weeks to two weeks (unless infection persists).

The periods of exclusion from school of contacts of infectious disease have been correspondingly reduced.

All these alterations follow the modern accepted practices in Great Britain and America.

The Medical Officer of Health now has power to prevent a "carrier" from acting as a food-handler. Previously he could only rely on persuasion.

Provision is made for the issuing of international vaccination certificates and the appointment of public vaccinators for the purpose.

STAFF

The Division is now more fully staffed on the clerical side than has previously been the case. I wish to express appreciation of the efforts of the clerical staff, who have got through a large volume of work in an extremely competent manner. This has enabled me to undertake activities outside the normal routine work of the Division that otherwise would have been impossible.

APPENDIX

THE BACTERIOLOGICAL CONTROL OF ICE-CREAM

By DR. G. O. L. DEMPSTER, Medical Officer of Health, Dunedin

Ice-cream has become an important article of diet, and the possibility of the spread of infectious disease by this medium has been amply demonstrated by the recent outbreak of typhoid fever at Aberystwyth(1). The necessity for constant bacteriological and sanitary control of this product has thus been emphasized.

The standard laid down for ice-cream by regulations under the Sale of Food and Drugs Act, 1908, required the mix to be sterilized by boiling or pasteurized by heating to 156°F. for twenty minutes or 165°F. for ten minutes. The permitted bacterial content was not more than 50,000 organisms per cubic centimetre. The Food and Drug Regulations of 1946, while leaving the requirements for sterilization or pasteurization the same, substituted a *B. coli* standard for the total count. The present bacteriological standard is that ice-cream shall not contain any living coliform organisms in 0.1 millilitre.

Over the last few years much time has been spent in plant inspection and in test checking the manufacturing process at various stages, with satisfactory results. Manufacturers have welcomed the service and have shown themselves ready to adopt suggestions to improve bacteriological quality. One fact which has emerged during test checking of plants is the deterioration in quality liable to occur at the stage of the ageing-vat, as indicated by the following typical analyses :—

					Total Count.	<i>B. Coli.</i>
Pasteurizer mix	..	..	..	..	600	A in 1
					5,600	A in 1
Homogenizer	..	..	..	..	48,000	A in 1
					8,500	A in 1
Cooler	..	..	..	..	9,100	A in 1
					7,000	A in 1
Ageing-vat	..	..	..	..	7,800,000	P in 0.0001
					870,000	P in 0.0001
Churn	..	..	..	..	7,440,000	P in 0.0001
					240,000	P in 0.001
Bulk can	..	..	..	..	7,080,000	P in 0.001
					280,000	P in 0.0001

In one or two instances it was found that the capacity of the cooler was insufficient, with the result that the mix in the ageing-vat took a long time to reach a temperature at which bacterial multiplication would be arrested. In fact, the ageing-vat was acting as an incubator. For example, in one instance it was found that the mix came off the cooler at a temperature of 105°F. and took five hours for the temperature to be reduced to 51°F.; while in another case the mix came off the cooler at 74°F. and had dropped only 2°F. in three hours. It took seven hours twenty minutes for the vat temperature to reach 53°F.