

Table 1 Microbiological profile of food samples collected from the kitchens pre- and post-training

Food sample	Hos- pital	No. of sam- ples <sup>a</sup>	Total aerobic mesophilic count <sup>b</sup> CFU/g or mL			Coliform count <sup>b</sup> MPN/g or mL			Faecal coliforms <sup>c</sup> %		Staphylococci Count <sup>b</sup> CFU/g or mL			Coagulase test % <sup>c</sup>	
			Pre	Post	PST	Pre	Post	PST	Pre	Post	Pre	Post	PST	Pre	Post
			<b>Animal origin</b>												
Dairy products	MRI	20	$1.6 \times 10^4$	$1.3 \times 10^4$	0.304	27	9	1.860	10.0	20.0	$1.2 \times 10^3$	$1.2 \times 10^3$	0.146	0.0	0.0
	GAN	25	$6.6 \times 10^3$	$6.7 \times 10^2$	3.752*	16	6	1.809	0.0	0.0	$9.1 \times 10^2$	$3.2 \times 10^2$	1.956	12.0	0.0
Meat products	MRI	10	$1.4 \times 10^4$	$5.8 \times 10^3$	0.915	213	< 3	6.359*	30.0	0.0	$1.5 \times 10^3$	$5.7 \times 10^2$	0.906	0.0	0.0
	GAN	10	$6.3 \times 10^3$	$1.8 \times 10^3$	1.835	6	< 3	1.137	10.0	0.0	$2.1 \times 10^2$	< 200	0.917	0.0	0.0
Chicken/eggs	MRI	10	$1.3 \times 10^4$	$4.9 \times 10^2$	3.367*	24	< 3	2.742*	10.0	0.0	$4.1 \times 10^2$	$2.0 \times 10^2$	2.204	0.0	0.0
	GAN	5	$4.7 \times 10^2$	$2.2 \times 10^2$	1.595	< 3	< 3	1.000	0.0	NCO	< 200	< 200	1.633	0.0	NCO
Total	MRI	40	$1.3 \times 10^4$	$4.9 \times 10^2$	3.367*	24	< 3	2.742*	10.0	0.0	$4.1 \times 10^2$	$2.0 \times 10^2$	2.204	0.0	0.0
	GAN	40	$4.7 \times 10^2$	$2.2 \times 10^2$	1.595	< 3	< 3	1.000	0.0	NCO	< 200	< 200	1.633	0.0	NCO
<b>Plant origin</b>															
Cooked vegetables	MRI	5	$5.7 \times 10^2$	$2.6 \times 10^2$	1.254	< 3	< 3	NS	NCO	< 200	< 200	NS	0.0	0.0	
	GAN	5	$4.0 \times 10^2$	$3.0 \times 10^2$	0.440	< 3	< 3	NS	NCO	< 200	< 200	1.500	0.0	NCO	
Jams	MRI	5	$2.2 \times 10^3$	$1.1 \times 10^3$	0.418	< 3	< 3	1.000	NCO	0.0	< 200	< 200	NS	NCO	NCO
	GAN	5	< 200	< 200	1.000	< 3	< 3	NS	NCO	< 200	< 200	1.000	20.0	NCO	
Stewed beans	MRI	5	$1.9 \times 10^3$	$8.6 \times 10^2$	0.889	177	< 3	6.497*	20.0	0.0	< 200	< 200	1.000	0.0	0.0
	GAN	5	$5.4 \times 10^2$	$2.7 \times 10^2$	1.285	32	3	2.527	0.0	0.0	$2.2 \times 10^2$	< 200	1.174	0.0	NCO
Bread	MRI	5	$1.8 \times 10^4$	$1.3 \times 10^3$	2.252	46	6	1.975	0.0	0.0	$7.0 \times 10^2$	< 200	1.585	0.0	0.0
	GAN	5	$1.3 \times 10^3$	$1.8 \times 10^3$	0.746	< 3	5	1.534	0.0	0.0	< 200	< 200	1.000	20.0	0.0
Raw salad	MRI	5	$9.9 \times 10^4$	$4.8 \times 10^3$	2.972*	810	24	3.621*	20.0	0.0	$1.3 \times 10^3$	$4.9 \times 10^2$	0.885	40.0	0.0
	GAN	5	$7.2 \times 10^3$	$1.3 \times 10^3$	3.871*	88	4	3.698*	0.0	0.0	$7.0 \times 10^2$	< 200	3.206*	0.0	0.0
Total	MRI	25	$2.6 \times 10^3$	$1.2 \times 10^3$	1.605	11	< 3	4.096*	5.7	NCO	$3.0 \times 10^2$	$2.2 \times 10^2$	1.646	5.7	NCO
	GAN	25	$8.7 \times 10^2$	$4.0 \times 10^2$	2.469*	3	< 3	1.478	0.0	0.0	$2.5 \times 10^2$	$1.9 \times 10^2$	2.513*	8.9	0.0

<sup>a</sup>Each number of samples was collected before training and again after training.<sup>b</sup>Values shown are the geometric mean.<sup>c</sup>Percentage of positive samples.\*Significant at  $P < 0.05$ .

PST = paired-sample t-test; CFU = colony forming units; MPN = most probable number; MRI = Medical Research Institute hospital; GAN = Gamal Abdel Nasser hospital; NCO = not carried out; NS = no statistics because the standard error equalled zero.