Charitable Food Assistance: What are Food Bank Users Receiving?

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Food banks are ad hoc, charitable organizations that collect and distribute donated foods to the needy. They rapidly proliferated in Canada in the 1980s as communities tried to respond to problems of hunger in their midst. Demands for charitable food assistance have continued to rise in recent years, more than doubling between 1989 and 1998.1 Although concerns about the adequacy and appropriateness of this response to income-related food problems abound,2-8 food banks are now regarded as a 'necessary community resource.'9

The assistance provided by food banks is largely contingent upon the quality and quantity of donations from the public and from producers, processors and retailers. When funding permits, food banks may purchase foods to augment the nutritional quality of the donations (e.g., ref. 10). Incentives for companies to donate food can include corporate pride, enhanced customer loyalty, product exposure, and cost savings incurred from diverting unsaleable products from landfill sites.¹¹ Industry donations include products deemed unsaleable because of manufacturing errors; damage during shipping, handling and storage; or because the products are perishable and no longer of retail quality or nearing their expiry dates. The level of reliance on these donations varies widely

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between food banks, depending on their proximity to large-scale food processing and retail operations and their access to alternative sources of food.

The supply-driven nature of food banks raises many questions about the quality and quantity of food available to those who seek assistance, but this has been the subject of little study. As part of a larger collaborative project designed to develop practice guidelines for emergency hamper programs in Toronto, a survey was conducted to assess the food distributed and gain an understanding of consumers' perspectives on this food. Key findings are summarized here.

METHODS

Food assistance in Toronto is coordinated by Daily Bread Food Bank; they supply food to 70 emergency hamper programs that in turn provide assistance to approximately 135,000 people per month.¹² Over four consecutive weeks in June and July, 1998, 18 randomly selected programs were each visited once and participants were recruited on a 'first come, first serve' basis, as they came for food. A final sample of 102 consumers was achieved, reflecting an 80.3% participation rate. The household characteristics of study participants were similar to those of participants in Daily Bread Food Bank's 1998 client survey.12

Survey participation was voluntary, anonymous, and by informed consent. Ethical approval was obtained from the University of Toronto Office of Research Services. The survey was intervieweradministered and asked participants for their appraisals of the quantity, quality, and safety of the food they received. The contents of 85 participants' hampers were also recorded, noting any visible damage to foods and the expiry dates of all dairy products. In two agencies, long line-ups for assistance made it logistically unfeasible to record hamper contents.

The energy and nutrient composition of hamper contents was estimated using the 1996 version of the Canadian Dietary Information (CANDI) System for food intake analysis.13 A theoretical estimate of the number of days of food provided by each hamper was established by comparing the total energy of hamper contents with an estimate of the daily energy needs of the recipient household, calculated by summing current average daily energy requirements14 for each individual in the household. Similarly, the potential nutritional contribution of the hampers was estimated by comparing hamper contents to the sum of the recommended intake levels (RNIs) for each nutrient for each household member.14 Statistical analyses were performed using SAS/PC Version 6.10 for Windows (SAS Institute, Cary, NC).

RESULTS AND DISCUSSION

One third of participants received less than a 3-day supply of food (the programs' stated target), with amounts ranging from 1 to 14 days' supply (Table I). The estimated nutrient contribution of the hampers also varied widely, with calcium, vitamin A and vitamin D most commonly provided in amounts less than 3 days, reflecting the limited supplies of fresh vegetables and dairy products. Hamper size was inversely correlated with family size (r=-0.47, p=0.0001), and over half of households comprised of four or more persons received less than a 3-day supply. The small amounts of food obtained by some

households beg the question of what role food banks play in helping consumers meet their food needs. Reports of food deprivation among families using food banks⁸ suggest that for some, at least, the assistance is insufficient.

Sixty-seven (78.8%) of the 85 hampers assessed contained at least one damaged or outdated item (Figure 1), and these items comprised 9.0% of the foods recorded. The majority of survey participants appeared willing to accept visibly substandard products, as long as they perceived the food to be safe (Table II). However, over half of the survey participants had at some time received food that they believed was unsafe to eat (Figure 2). Most said they had discarded the food, but six people reported consuming it despite safety concerns. Though not a focus of this survey, the visibly substandard nature of some foods must also contribute to the feelings of embarrassment and degradation some report in association with food bank use.^{2,8}

Problems of poor food quality and limited selection are not unique to Torontoarea food banks.^{2,15,16} They are inherent in the ad hoc, donor-driven nature of this secondary food system. Concerns about food safety have been compounded by the recent enactment of 'Good Samaritan' laws in several provinces, diminishing donors' and food bank operators' responsibility for the health and safety of the food distributed.¹⁷ Concerns about food quality have prompted many food banks to improve their food handling procedures (e.g., ref. 15), but the culling and sorting of foods rejected by our retail system is a resourceintensive activity, particularly for cashstrapped organizations largely reliant on volunteer labour and donated facilities. Although food banks continue to be the primary response to hunger in Canadian communities, our findings indicate that neither the amount nor the quality of food assistance available to people using food banks should be taken for granted.

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TABLE I Estimated Number of Days of Energy and Selected Nutrients Provided by Food Hampers (n=85)

	Mean ± SD (Median) (days)	Minimum-Maximum (days)	Proportion of Hampers with <3 Days' Supply (%)
Energy	$4.24 \pm 2.12 (3.93)$	1.16 - 13.96	33
Protein	$6.70 \pm 2.85 (6.34)$	2.27 - 17.14	7
Vitamin A	$6.98 \pm 8.49 (3.39)$	0.47 - 33.98	42
Vitamin D	$4.53 \pm 5.01 (3.14)$	0.00 - 22.00	48
Vitamin C	$7.84 \pm 5.47 (6.27)$	0.92 - 27.37	14
Folate	$6.69 \pm 3.28 (6.15)$	1.95 - 16.24	11
Vitamin B ₁₂	$10.61 \pm 6.92 (9.32)$	0.52 - 36.41	9
Thiamin ' ²	$10.03 \pm 6.82 (8.01)$	2.06 - 34.29	6
Riboflavin	$5.94 \pm 3.39 (4.80)$	1.74 - 20.22	13
Niacin	$10.56 \pm 5.86 (9.16)$	2.74 - 30.84	1
Calcium	$4.00 \pm 2.32 (3.40)$	0.86 - 12.93	39
Magnesium	$7.78 \pm 4.08 (7.15)$	1.92 - 22.16	11
Iron	$8.92 \pm 5.93 (7.28)$	1.79 - 31.84	6
Zinc	$4.25 \pm 2.21 (3.80)$	0.86 - 13.85	34

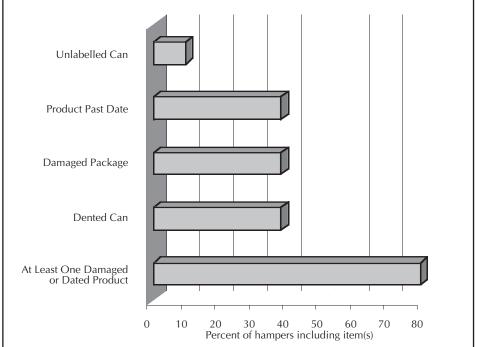


Figure 1. Prevalence* of damaged and out-dated food items in the 85 food hampers examined.

* For each product description, the percentage represents the proportion of hampers examined which contained at least one such item.

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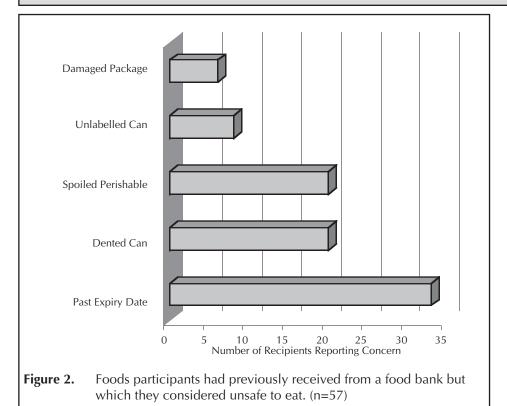
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TABLE II Consumers' Views on Receiving Substandard Products (n=102)					
	Acceptable	Unacceptable	Acceptability Dependent Upon:	Missing Responses*	
Dented Cans	48.5% (49)	18.8% (19)	20.8% (21)- condition of can 9.9% (10)- absence of obvious spoilage 2.0% (2) - type of food	1	
Damaged Packaging	21.6% (22)	15.7% (16)	57.8% (59) - inside packaging being sealed 2.9% (3) - absence of obvious spoilage 2.0% (2) - absence of evidence of rodents	0	
Past-Date Dairy Products	12.4% (12)	46.4% (45)	11.3% (11) - whether product is frozen 18.6% (18) - absence of obvious spoilage 1.0% (1) - whether for self or for child 7.2% (7) - number of days past the date 3.1% (3) - other	5	
Past-Date Canned Goods	31.7% (32)	38.6% (39)	19.8% (20) - absence of obvious spoilage 8.9% (9) - whether for self or for child 1.0% (1) - number of days past the date	1	

Missing responses were most commonly due to language barriers, but four participants were unable to respond to the past-date dairy products question because they did not eat dairy products.



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