

FOOD RESCUE

A FRESH APPROACH



REPORT 1: THE SOCIAL AND NUTRITIONAL IMPACT OF FRESH RESCUED FOOD ON VICTORIAN COMMUNITY MEAL PROGRAMS AND THEIR CLIENTS.

A REPORT SERIES





Food Rescue - A Fresh Approach
A Report Series
Report 1 : The social and nutritional impact of fresh rescued food
on Victorian community meal programs and their clients.

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We were compelled to undertake this research as we found it unacceptable that virtually no data about individuals accessing Community Food Programs in Australia existed. How can we truly become part of a solution when we lack understanding of the issue?

I believe passionately that there is a collective responsibility to serve the most vulnerable members of our community, who are suffering from food security issues, with healthy food. One of the most concerning outcomes of this report is that the average Body Mass Index of recipients surveyed was 28 (a healthy range is 20 to 25) and their nutrient intakes were compromised. This reveals that a majority of participants are suffering from weight issues but are also malnourished.

The redistribution of healthy fresh food and continued research into long-term preventative solutions is essential for the physical, mental and social wellbeing of vulnerable people.

Katy Barfield, Executive Director, SecondBite

EXECUTIVE SUMMARY

ACCESSING FRESH NUTRITIOUS FOOD IS A PROBLEM FOR MANY PEOPLE

Access to food is a basic human right,¹ however, it is estimated as many as 1.2 million Australians are regularly at risk of food insecurity². Food security is achieved when individuals can provide themselves with a safe, nutritious, affordable, non-emergency and culturally appropriate food supply³. The detrimental effects of an inability to maintain an adequate supply can range from social isolation, to increased risk of chronic disease and diminished health and economic status⁴. When the purchasing of food becomes untenable, thousands of Australians seek food parcels and meals from Community Food Programs (CFPs). The charitable agencies that operate various forms of food programs provide a vital service to vulnerable people, who may be experiencing financial difficulties, homelessness, health problems, substance dependencies, or a combination of these.

Community Food Programs have the potential to provide positive physical health outcomes for their vulnerable clients via the provision of a variety of nutritious fresh food in parcels, meals and/or cooking-skills programs. They can also provide a forum for positive mental health outcomes by offering food in a socially inclusive and caring environment. Food is a simple medium through which powerful positive change can take place within our community.

\$7.8 BILLION OF FOOD IS WASTED ANNUALLY IN AUSTRALIA

Despite low consumption of healthy food and increased prevalence of diet-related disease amongst Australia's most vulnerable people, we are producing enough fresh food to feed the nation three times over⁵ and wasting more than \$7.8 billion worth of food every year⁶. Recent data suggests there is 7.5 million tonnes of food wasted every year in Australia, of which 3.1 million is commercial/industrial and 4.4 million is household waste⁷. Assuming Australians eat 1.5kgs of food per day, this amount of food surplus could feed more than 13.6 million people every day for one year.

RESEARCH ON FRESH FOOD RESCUE

SecondBite is a not-for-profit food rescue organisation that in 2010 collected and redistributed 880 tonnes of fresh, nutritious food that would have otherwise gone to land-fill⁸. Almost 75% of this was fresh fruit and vegetables. The rescued food was redistributed to CFPs, providing more than 6 million free serves of fruit and vegetables to the community. This report outlines the results of an exploratory study commissioned to examine the social and nutritional significance of fresh rescued food on a sample of community meals and individual recipients. It is the first report in a series of SecondBite research projects that explore food rescue and food insecurity. In August and September 2010, nine agencies participated in the research. Evidence was gathered about the impact of the rescued food on agencies' operations, via a survey of food program staff and by collecting examples of meals served (n=27). Staff at the agencies helped to recruit 30 clients to participate in a 24-hour diet recall and semi-structured interview in order to understand the impact of food rescue on individuals. The project was undertaken as an Honours research thesis at RMIT University, Melbourne.



50% of food is wasted from the field to fork.

This research highlights how a portion of this food is making a difference to the way Australia's most vulnerable people eat and live.



FRESH FOOD RESCUE CAN MAKE A DIFFERENCE

Community Food Programs

Nine SecondBite recipient agencies located in Melbourne, Dandenong and Geelong participated. The results suggest that:

- i) Free fresh rescued food helped to reduce costs for agencies, with approximately \$193,000 worth of food being supplied to nine agencies in 2010;
- ii) an average of four serves of vegetables per meal were provided via SecondBite-supported Community Food Programs. More support is needed to provide increased fresh fruit and dairy;
- iii) 71% of the food required to serve a community meal was fresh rescued food, otherwise destined for land-fill.

Community Members

Thirty CFP clients were interviewed and the results highlight various positive social and nutritional outcomes for individual recipients of rescued food. These were:

- i) The fresh food in the meals provided an average of 65% of the participants' fruit and vegetable consumption for the day and most of this was rescued food. For some (33%) it was their only fruit and vegetables for the day;
- ii) nineteen participants (63%) sourced at least half of their total food intake from Community Food Programs;
- iii) both positive nutritional and social outcomes were achieved by accessing fresh rescued food and community meals, which was made further significant because of the final finding which was that;
- iv) an experience of social exclusion and poor nutrition was evident in the individuals.

50% of food is wasted from the field to fork⁹. Overall, this research highlights how a portion of this food, when rescued, is making a difference to the way Australia's most vulnerable people eat and live. As a result of this research and insights gained from our operations within the community sector, SecondBite is committed to:

1. Improving policy and infrastructure

We welcome the National Food Plan and urge the Federal Government to consider the not-for-profit food sector as a major stake-holder. In addition, SecondBite offers to be involved in the Food Policy Working Group. We also ask that the Victorian Food Security Minister discusses key issues with SecondBite, its partner recipient agencies and the community members we exist to serve.

2. Increased fresh surplus food

In 2011, SecondBite requires urgent food donations in Victoria and Tasmania. We are seeking increased supplies of fresh dairy and fruit to help meet the deficits identified in this research; farmers, producers and retailers are urged to support this initiative.

3. Further research and innovative programs

SecondBite will be launching the following initiatives:

- i) SecondBite Nutrition Action Program, an innovative education course for CFP staff.
- ii) The SecondBite Food Security Advisory Committee - a panel of research experts and practitioners.
- iii) SecondBite Community Connect™, matching CFPs with local food donors.



In order to action the initiatives described above and continue to conduct innovative research, SecondBite requires increased financial and pro-bono support.

Help us to plant the seeds of change...



CONTEXT

**FOOD IS A SIMPLE
MEDIUM THROUGH
WHICH POWERFUL
POSITIVE CHANGE CAN
TAKE PLACE WITHIN
OUR COMMUNITY.**



FOOD AND PHYSICAL HEALTH

Research suggests that the diets of those with the least socio-economic resources are often the most nutritionally compromised, placing them at risk of vitamin and mineral deficiencies and diet-related disease. Several Australian studies provide an insight into the physical, emotional and financial costs of living on a low-income¹⁰ or being obese¹¹. Research reveals that low-income households are less likely to consume the recommended intake of fruit and vegetables per day¹² and 7.5 million Australians are overweight¹³.

FOOD AND MENTAL HEALTH

Experiencing social exclusion can be both a product of, and a precursor to, food insecurity. People who are constantly searching and worrying about food and hunger may have less disposable time and energy for other pursuits¹⁴. One study of a CFP in Wollongong found that 65% of participants felt that the experience of not having enough food manifested in emotional and psychological stress¹⁵. This strain on community members can develop into job loss and anti-social behavior and may contribute to the 3.2 million Australians who suffer from mental health disorders¹⁶. The Federal Government has a 'vision of a socially inclusive society...one in which all Australians feel valued and have the opportunity to participate fully in the life of our society'¹⁷. Many of Australia's homeless people (estimated to be 104,000), new migrants, public-housing tenants and vulnerable people are at risk of isolation and food insecurity, and the inability to meet the basic need for food imposes a heavy cost on the community and nation¹⁸.

FOOD AND THE ENVIRONMENT

The impact of climate change on our food system is projected to be significant over the next 10-20 years. Water scarcity, severe weather and peak-oil are amongst the greatest hurdles we face¹⁹. Lawrence²⁰ predicts a 40% increase in the price of fresh food globally, due to complex factors such as increasing oil- and water-scarcity, compounded by urban infrastructure problems and difficulties managing food waste. As an example of food waste issues, for every kilogram of beef that ends up in the bin, it emits a methane 23 times more damaging than car exhaust fumes and the 50,000 litres of water required to produce it is wasted²¹. Recent floods and cyclones in Queensland are expected to increase certain food costs by as much as 50% in 2011 – with the costs of Victorian and Tasmanian floods still to be determined²². Unsustainable and inaccessible food systems strain the environment, our health and the community as a whole.



Food insecurity is a hidden problem in Australia. A surprising number of Australian families are affected. Food insecurity impacts on their physical, mental and social well being. For our community as a whole, food insecurity has a significant economic cost in terms of the burden of diet-related disease and a cost to the social fabric of our society. Research is required to identify how best to tackle food insecurity in Australia.

Dr. Cate Burns
Associate Professor Deakin University
SecondBite Director

HIGH ECONOMIC COST TO THE COMMUNITY

In Australia, the economic cost of managing and treating diet-related chronic disease (in terms of health care) is estimated at \$6 billion every year²³. And the national recurrent expenditure on mental health services is \$4.7 billion²⁴. In 2001, \$930 million was the "attributable societal cost for Victoria of inadequate fruit and vegetable consumption"²⁵. If there was an increased intake of fresh fruit and vegetables by just one serving a day for every Australian, this would result in health care savings of \$24.4 million and \$8.6 million per year, for costs associated with breast and lung cancer alone²⁶.

SecondBite's food rescue and redistribution aims to combat these issues and offer sustainable and systemic solutions.

In the recent Australian report, *Food Security in a Changing World*, the Prime Minister's Science, Engineering and Innovation Council suggested, "the management of the food supply should be improved to ensure all Australians, including at-risk populations, have access to food that promotes health and wellbeing. At the same time, to reduce the high levels of food waste in the community, food should be regarded as a valuable resource"ⁱ.

SecondBite agrees.

RESEARCH METHODOLOGY

Nine community agencies participated in the research project, that collected data in August and September, 2010. The agencies are provided with a weekly supply of fresh rescued fruit, vegetables and smaller amounts of dairy, meat and non-perishable foods. They were invited, via a letter, to voluntarily participate in the research project. Participants are listed below:

- Cornerstone
- Asylum Seeker Welcome Centre
- Salvation Army Northside
- Salvation Army Project 614 Bourke St
- Ozanam Community Centre
- Project Respect
- Flemington and Kensington Church Lunch
- St. Mary's House of Welcome
- Prahran Mission

See table below for the details about the clients of the nine agencies (assigned letters A to I in no specific order) that participated:

The SecondBite research team gathered data from each of these nine agencies via three tools:

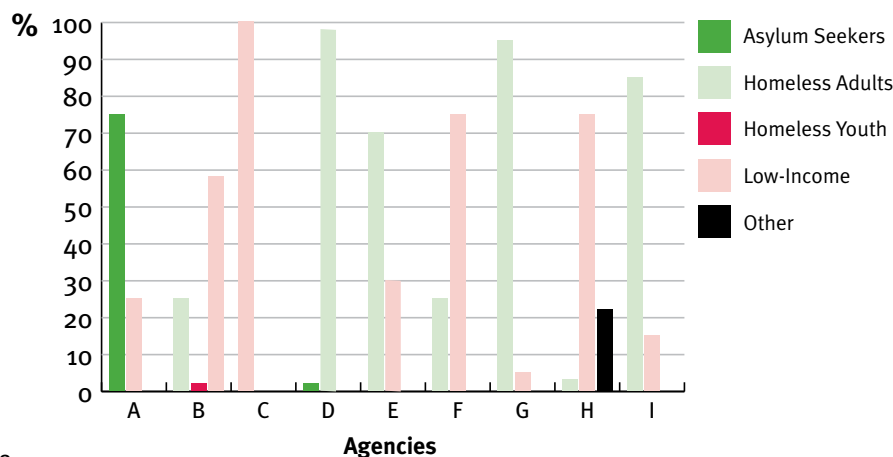
1. A survey of the agency staff (9 participated);
2. An analysis of the three meals served at the agency (27 meals);
3. An interview with three or four individuals from each CFP (30 participants).

The evidence was gathered to explore:

1. The contribution of rescued food on operations and outcomes achieved via the provision of free fresh rescued food;
2. The nutritional value of a sample of meals provided by recipient agencies to vulnerable people;
3. The change in nutrient and energy intakes of the individuals using community meal programs. A semi-structured interview was also conducted with individuals about social interaction and benefits of the meal program.



FIGURE 1: CLIENTS OF COMMUNITY MEALS AT PARTICIPATING CFPs





\$930 MILLION WAS THE ATTRIBUTABLE COST FOR VICTORIA OF INADEQUATE FRUIT AND VEGETABLE CONSUMPTION.

RESULTS

FRESH FOOD RESCUE: IMPACT ON OPERATIONS

In interviews, staff members representing the participating agencies revealed that a financial saving was the major benefit of the supplies of free rescued food. In total, the agencies were supplied with approximately \$193,000 worth of food (combined) throughout the year.

Some interviewees noted that a wider variety, increased volume and more interesting ingredients were additional benefits. Asian vegetables, exotic summer fruits, hearty steaks and fresh salads were most appreciated. Seven agencies had also created take-home fresh parcel programs, since SecondBite began supplying them. These findings are further explained:

“We don’t have to buy vegetables any more...and the variety allows me to cook and play with things”

Gloria, Kitchen Manager, Cornerstone

“We are getting a fantastic selection of food...healthy and tasty (and) the women are always quite taken-aback and amazed at what gets delivered... without SecondBite I’m not really sure how’d we run the lunches, it would be on an absolute minimum budget”

Vicky, Outreach Worker, Project Respect

“Never to date have I bought any fruit or vegetables...it depends on what I get, I plan my meals around that. At the moment a lot of Asian vegetables are coming in now, which makes me more creative. I want my meals to be ‘wow!’”

Shane, Head Chef,
St Mary’s House of Welcome

For all participating agencies, the community meal programs were a way of providing a caring and inclusive social space for community members. The staff often used the terms ‘open’, ‘homely’ and ‘welcoming’ when talking about the meal and wanted to offer a place that the community could rely upon. For example:

“It’s embarrassing for people to go to Centrelink and scab \$20 for food for the week, whereas here they can come and get a well-balanced meal...if they’ve got nothing they know they can always rely on the Salvation Army.”

Sandy, Head Chef,
Salvation Army Northside.

FRESH FOOD RESCUE: IMPACT ON COMMUNITY MEALS

An analysis of the meals was made via the collection of three samples from the meal programs. Most agencies (7) served meals that included all five food groups. The data suggest that on average, agencies provided four serves or 80% of daily recommended vegetable requirements. The meals provided an average of 1.4 serves from the meat and alternatives food group. This allowed individuals to meet their daily suggested serves²⁸. Bread was often available on tables and could be replenished; therefore the average number of serves (1.7) may reflect less cereal than was actually consumed. The average serve of fruit (0.4 serves/meal) and dairy (0.5 serves/meal) was only a small contribution to the suggested daily intake of 2 serves of each. See further details in Table 2.

TABLE 1: VALUE OF FOOD PROVIDED

Agency	Average weekly supply of fresh rescued food (kgs)	Weekly value (assuming a conservative \$3 average cost per kgs of produce supplied)	Yearly value
A	65	\$195	\$10,140
B	110	\$330	\$17,160
C	75	\$225	\$11,700
D	85	\$255	\$13,260
E	250	\$750	\$39,000
F	50	\$150	\$7,800
G	105	\$315	\$16,380
H	100	\$300	\$15,600
I	400	\$1,200	\$62,400
TOTAL	1240	\$3,720	\$193,440



TABLE 2: NUTRITIONAL ADEQUACY OF COMMUNITY MEALS COMPARED TO RECOMMENDED DAILY SERVES



Agency	Av. serve fruit	RDS fruit	Av. serve veg.	RDS veg.	Av. Serve meat/alt.	RDS meat/alt.	Av. cereal	RDS cereal	Av. dairy	RDS dairy
A	1	2	3	5	1.5	1-1.5	2	6-12	0.25	2
B	0.5	2	10	5	3	1-1.5	2.5	6-12	1	2
C	0.5	2	5	5	1.5	1-1.5	1	6-12	0.5	2
D	0	2	2.5	5	1	1-1.5	1.5	6-12	0.5	2
E	0.5	2	3.5	5	2.5	1-1.5	0.75	6-12	0.25	2
F	0	2	4.5	5	0.5	1-1.5	1	6-12	0.5	2
G	0	2	1.5	5	1.5	1-1.5	1.5	6-12	0	2
H	0.75	2	2.5	5	2.5	1-1.5	2.25	6-12	1	2
I	0.5	2	4	5	4	1-1.5	3	6-12	0.25	2

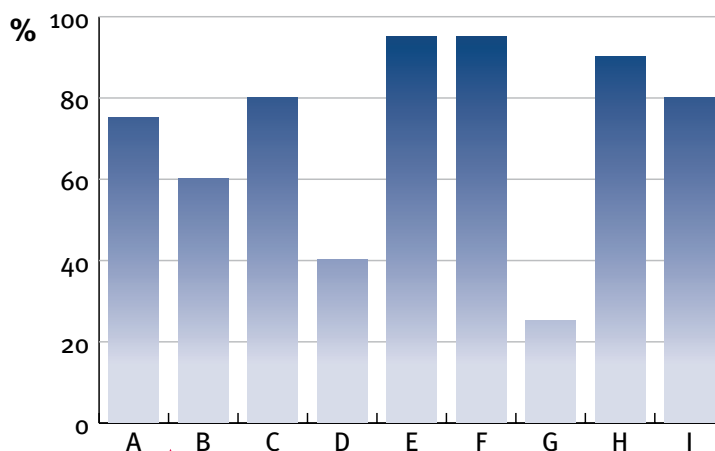


(RDS = Recommended Daily Serve, based on male 19 to 60 year olds from the Australian Guide to Healthy Eating.)

Nineteen participants stated that CFPs provided 'at least half' of the food they consumed daily. This highlights the importance of the subsidised and free meals provided by the community food sector and suggests that many people rely heavily on this form of food supply. It also suggests that community meals should be providing at least 50% of their client's core food group needs. As highlighted in Table 2, more dairy and fruit supplies are required. Nutrition education programs for food preparation staff would allow more balanced meals to be served, ensuring better nutrition of CFP clients.

SecondBite fresh rescued food represented, on average, 71% of the food used in these meals. This was food that would have otherwise gone to landfill. See figure 2:

FIGURE 2: SECONDBITE FRESH FOOD AS % OF TOTAL MEAL



Community meals should be providing their clients with at least 50% of their core food group needs...more dairy and fruit is required.

RESULTS

FOOD RESCUE AND COMMUNITY MEALS: IMPACT ON NUTRITIONAL HEALTH

Thirty clients (11 female, 19 male) were interviewed about their height, weight and food consumption within 24 hours of the community meal. The dietary data suggests that many were poorly nourished, despite a diet high in energy. This combination manifests in excess weight gain and an increased risk of diet-related disease. Two participants were underweight and 17 were above the healthy Body Mass Index (BMI) of 20 – 25. See Figure 3.

Community members are using fresh rescued food for, on average, 65% of their daily fruit and vegetable intake. For nine participants, the one meal provided almost all (90 to 100%) of their fruit and vegetables for the day. See Figure 4:



FIGURE 3: PARTICIPANTS BMI

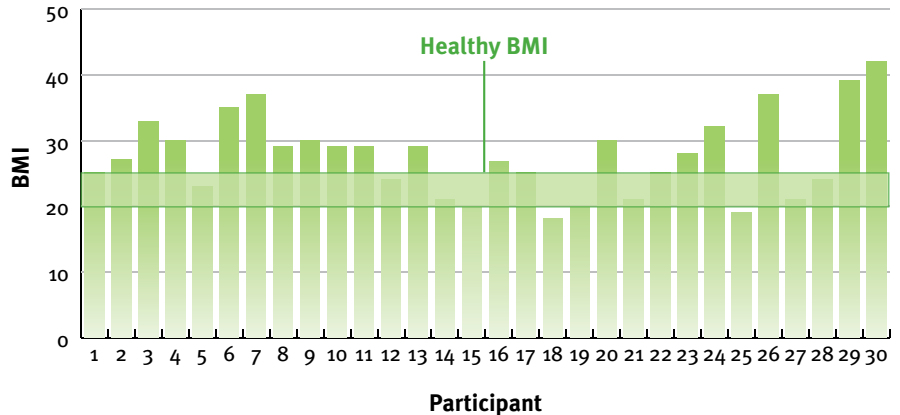
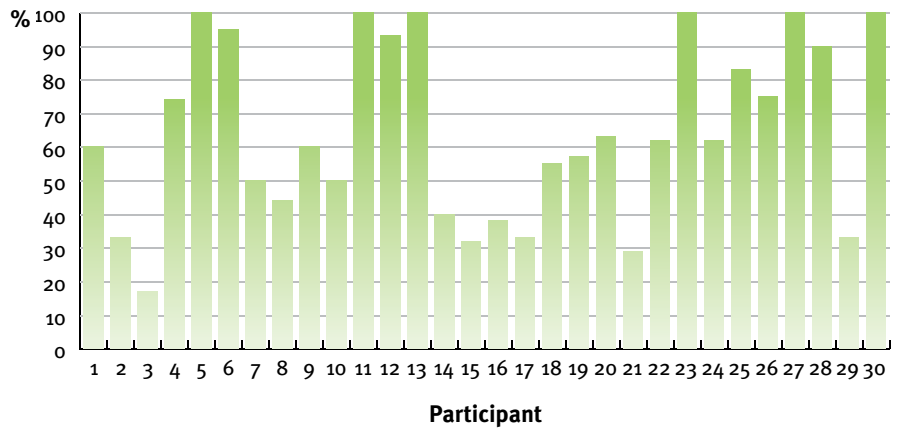


FIGURE 4: FRUIT AND VEGETABLES CONSUMED AT COMMUNITY MEALS AS % OF 24H INTAKE



“...you just have to look around to see people are smiling and they may be in very unfortunate circumstances...so if they were unable to have some relief, just a little bit, from their life, their stresses, their worry, their grief... if you don't have that it is detrimental to your health.”

Accessing 'nutritious' and 'good and proper' meals was often appreciated by the clients and the food provided was seen, for many, as more nutritious than what they would otherwise be able to provide for themselves. For example:

"I can eat healthier, more vegetables and I have my gall bladder out. Yeah, and it was getting harder. It was a bit awkward. Junk food is cheaper than healthy food so the healthy food that I have been getting here has really been helping."

-Female, 26

"...being on a pension you don't get much after you've paid all your bills out for a fortnight, you've hardly got anything left to be able to go down the grocery store and say look, give me half a dozen of this and a dozen of that, you just haven't got the means or the funds to do it...now and again, I'll actually put aside money specifically...save up for something like a...huge bowl of fruit..."

-Male, 42

A few (three) also conceded that there were some negative outcomes of community meals and CFPs in general. Three participants suggested that high-energy, nutrient-poor foods were often too readily available to those seeking CFPs and this had health costs for them. One man explained (on visiting a CFP not included in the sample):

"There was dumplings and golden syrup and ice cream, and it sounded beautiful. But I left. Because ...the price for me would be to just gain extra kilos. It's no good. I'm borderline diabetic. A couple more kilos could tip me over. And then I'm a diabetic. On top of everything else, it's another one I don't need."

Male, 51

FOOD RESCUE AND COMMUNITY MEALS: IMPACT ON SOCIAL EXPERIENCES

Most of the qualitative information gathered by the researchers revealed that clients sought out the community meal primarily, as an opportunity for social interaction, a place of belonging and an escape from their other lives. Examples below illustrate this:

"...you just have to look around to see people are smiling and they may be in very unfortunate circumstances, and things like that, so if they were unable to have some relief, just a little bit, from their life, their stresses, their worry, their grief, or whatever is going on, to have a little bit of relief, if (you don't have that it is) detrimental to your health."

- Female, 33

"...when I first came here it was an eye-opener because I thought there were a lot of people here who were in a similar situation as myself, meaning unemployed, doing it hard..."

- Male, 42,

"...there's a women's house in St. Kilda where only women go for food but, again they're not women that have come from the sex industry, and that's quite a unique background to have and you are, you're pretty closed about it...so to have that opportunity to speak to other like-minded women (at Project Respect) it's hugely important."

Female, 52

"Some people like to disguise that they need help...under the pretext of getting a meal, they actually seek support and engagement."

- Virginia, Drop-In Centre Coordinator, Ozanam Community Centre



CONCLUSION AND OUTCOMES

In summary, this report has explored some of the key findings about the nutritional and social changes that have occurred in community groups and for community members via the supply of fresh rescued food. SecondBite and Community Food Programs are committed to ensuring Australia's most marginalised community members have access to fresh and healthy food in socially inclusive environments. This research reveals that fresh nutritious food that would have otherwise gone to waste can be captured and used as a medium to create positive health and social outcomes for vulnerable community members.

POLICY AND INFRASTRUCTURE

Action to develop further infrastructure to allow for increased capacity of food rescue organisations and Community Food Programs needs to be a priority for the Federal Government's National Food Plan in 2011. This research found that an average of 71% of fresh food provided by CFPs comes from food rescue, and therefore food rescue activities have a potentially enormous impact on the health, social and economic costs of food insecurity.

SecondBite has a detailed understanding of Community Food Programs and has successfully developed innovative programs aimed at longterm preventative solutions to the issue of food insecurity. These

programs and this experience mean we are uniquely placed to provide valuable information to food security forums and policy development in local, state and federal governments – especially in the Food Policy Working Group.

We urge these bodies to consider the not-for-profit food sector as a major stake-holder in current debates on the subject of food insecurity and we ask the Victorian Food Security Minister to discuss this with SecondBite, its partner recipient agencies and the community members we exist to serve.

INCREASED FRESH SURPLUS FOOD

SecondBite is dedicated to achieving a sustainable and healthy food supply that all community members can access. There is no shortage of food surplus, only the infrastructure and resources required to collect and redistribute it. In 2011, SecondBite requires urgent food donations in Victoria and Tasmania.

We are seeking increased supplies of fresh dairy and fruit donations to help meet the deficits identified in this research; farmers, producers and retailers are urged to support this initiative and allow the problem of their food waste to serve as a solution to poor community nutrition.

FURTHER RESEARCH AND INNOVATIVE PROGRAMS

In response to this research, SecondBite will be launching the following initiatives:

- *SecondBite Nutrition Action Program* (SNAP). This innovative education course will be piloted in collaboration with CFPs, to ensure that marginalised community members are supported with safe, empowering and nutritious food programs.
- The *SecondBite Food Security Advisory Committee*. Members include Dr Rob Moodie, Dr Cate Burns, Dr Karen Adams and Dr Rosemary McKenzie with the aim of researching the current food climate, evaluating data and developing practical and sustainable programs which will ensure that all people have access to fresh nutritious food, and improved understandings about the community we exist to serve.
- SecondBite's national roll out of *Community Connect™*. In 2010 this program was piloted in Victoria and we are now discussing strategic partnerships with the Australian Red Cross and major retailers in order to ensure this program is available to regional and rural CFPs across Australia. By matching a CFP with a local food donor, we can ensure that food rescue occurs across the nation.

For further media information or interviews with:

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In order to action the initiatives described in this report and to continue to conduct innovative research into this issue, SecondBite requires increased financial and pro-bono support. Financial supporters keep our operations going and provide us with the resources to fund staff to conduct research. Pro-bono supporters offer their own area of expertise to help further our mission and achieve our goals. All support is critical to ensuring SecondBite can continue to make a

fundamental contribution to the community. Please help us to plant seeds of change by offering your support. SecondBite is committed to being a leading resource on food redistribution and Community Food Programs. Our dedicated Research and Development Department will continue to illuminate the food security landscape in the community sector and our participation in the Council to Homeless Persons Policy Advisory Group, Tasmanian

Homelessness Plan, the Food Alliance and the Australian Food Sovereignty Alliance will all provide an exceptional vehicle with which to drive this. We welcome the support of research institutes, VicHealth, the Federal departments of FACHSIA and DoHA and the Tasmanian and Victorian State Governments in achieving this goal.

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“The management of the food supply should be improved to ensure all Australians...have access to food that promotes health and wellbeing. At the same time, to reduce the high levels of food waste in the community, food should be regarded as a valuable resource”

The Prime Minister's Science,
Engineering and Innovation Council, 2010

SecondBite agrees.

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