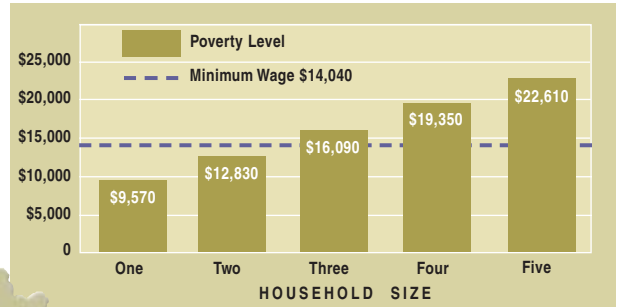


Project Bread Status Report on Hunger in Massachusetts 2005

Photo: Michael Dwyer



Poverty and Hunger The root cause of hunger is poverty. Today in Massachusetts, 630,000 people (9.8 percent of the population) live below the poverty line.¹ This includes many people working at low-wage jobs. For example, a single parent with two children who works full-time at the Massachusetts minimum wage (\$6.75 per hour) does not earn enough to escape poverty.²



A full-time job at minimum wage (\$14,040 per year) cannot keep a family of three or more out of poverty.

This third annual Status Report on Hunger in Massachusetts documents the current response to hunger in the Commonwealth by outlining the important role that emergency meals and federal nutrition programs play in helping low-income families alleviate and avoid hunger. It provides new evidence that hunger has serious medical consequences, especially for children, demonstrating the need for a public health approach to the problem. Another key finding is that school breakfast improves learning — indicated in higher MCAS scores — among elementary school students in low-income communities. It also shows that the use of federal nutrition programs to stabilize the lives of the poorest Massachusetts citizens is a smart way to maximize taxpayer revenues: by making better use of these programs, we would bring millions in untapped federal nutrition dollars into the state's economy.

Low-wages combine with the high cost of living in Massachusetts to leave working families with some hard financial choices that place them at risk for hunger. Among low-income households, 67 percent spend more than a third of their earnings on housing.³ For some, an even greater proportion of their income goes toward housing costs, since the fair market rent for a two-bedroom apartment in eastern Massachusetts is now \$1,266 per month.⁴ Rent can use up so much of a family's financial resources that by the end of the month, there is no money left to buy food.

Some of the major findings of the report:

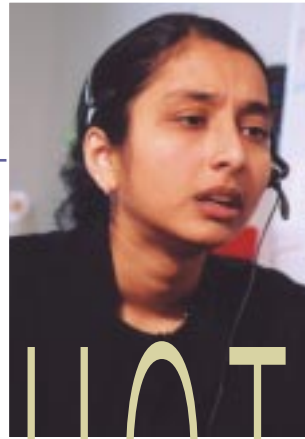
- Researchers at Massachusetts General Hospital (MGH) have found that childhood hunger is linked to poor health and medical problems, such as asthma, high lead levels, and failure to thrive.
- Through the existing network of neighborhood health centers, health care providers can quickly and effectively screen their patients for hunger and connect them with immediate and long-term nutrition assistance.
- Universal breakfast programs allow more children to eat school breakfast, and as more children participate, MCAS scores improve.
- The demand for emergency food remains at a high point in Massachusetts with a disproportionate number of emergency meals served to children.
- Hunger prevention strategies can improve access to healthy food for thousands of families, preserving the role of emergency food programs as a last resort.
- By making better use of federal nutrition programs, Massachusetts can help its low-income residents stretch their food budgets and at the same time bring millions of taxpayer dollars back into the state's economy.

Monthly Budget for a Child-Care Worker (with Two School-Aged Children) Earning \$10.53 per Hour ⁵		Amount
INCOME:		
Take-Home Pay	After taxes (accounting for earned income tax credit) and deduction for health care coverage	\$1,661.00
EXPENSE:		
Rent	Fair Market Rent for Two-Bedroom Apartment in Boston	\$1,266.00
Transportation	Monthly Subway Pass	\$44.00
Miscellaneous	Includes clothing, household items, telephone, etc. (Ten percent of all other expenses.)	\$131.00
REMAINING FOR FOOD		\$220.00

According to the USDA, in order to purchase an adequate diet for her family, this parent should spend at least \$380 per month on food.⁶ But with just \$220 remaining in her budget, she can only afford 17 days worth of food each month.



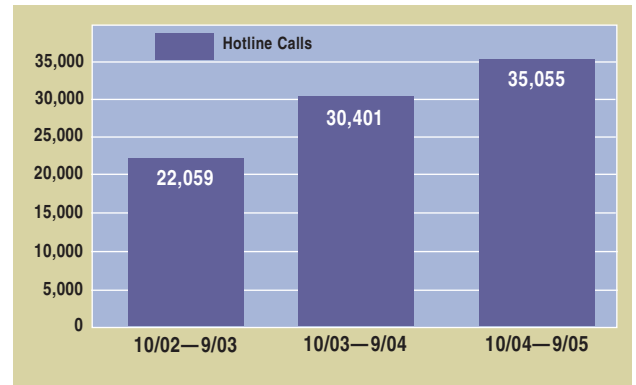
Photos Joshua Touster



HOTLINE

Calling for Help

Project Bread's FoodSource Hotline is the only information and referral service in Massachusetts for people facing hunger. Professional counselors staff the hotline and respond with compassion to people in need, offering them referrals to local emergency food programs and information about food stamps and other nutrition programs. In the 12 months beginning October 2004, the hotline received 35,055 calls. Over half of all calls were from families with children that could not afford adequate food.



Calls to the FoodSource Hotline have increased by 59 percent in the last three years.

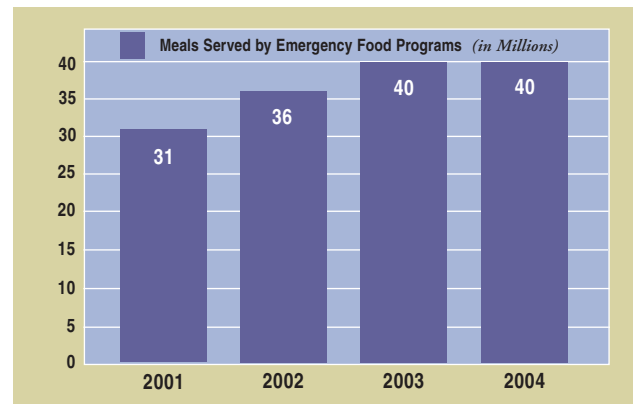
The Demand for Emergency Food

Through the annual Walk for Hunger, Project Bread raises money to support over 400 emergency food pantries and meal programs in 136 communities in Massachusetts. This year, as in 2003, emergency food programs funded by Project Bread reported serving 40 million meals.⁷



Photo Joshua Touster

Nationally, 35 percent of emergency food clients are children.⁸ Programs funded by Project Bread similarly reported serving one-third of their meals to children in 2004. Since children make up just 24 percent of the population in Massachusetts, they are over represented among hungry people.



While demand leveled off in 2004, emergency meals have increased by 29 percent since 2001.

Childhood Hunger & Poverty



Photo Joshua Touster

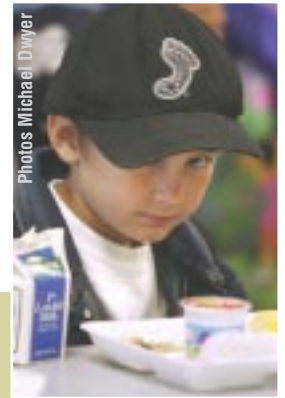
Counselor answering a call for help at the state's only toll-free FoodSource Hotline.

Hunger is highly concentrated in pockets of poverty in Massachusetts. In a 2003 study, Project Bread and the Center for Survey Research at the University of Massachusetts Boston found an unprecedented level of hunger in low-income communities: 20 percent of all households lacked adequate food. It also revealed that one child in three in these communities is a member of a family that is unable to meet its basic need for food.⁹ This survey finding includes two measures of hunger: those households that were "food insecure" to the extent that one or more household members were on the brink of hunger at least some time during the year, and those households that were "food insecure with hunger." The latter measure, which affects 10 percent of the households with children surveyed and represents a more extreme deprivation, means that they were forced to cut the size of meals, skip meals, and eventually ran out of food altogether, experiencing hunger.

Over the last three years, Project Bread has received \$5.5 million in grants to demonstrate a community-based approach to child hunger prevention. These funds have allowed Project Bread to establish the Massachusetts Child Hunger Initiative (MCHI).

In partnership with political and civic leaders, MCHI is working intensively in 20 low-income communities, both urban and rural. MCHI provides grants to local organizations in these communities that help children receive free breakfast and lunch at school, summer meals when school is out, healthy snacks at after-school programs, and better nutrition at home with the assistance of food stamps. The goal of MCHI is to build a seamless child nutrition safety net that takes children out of food pantry lines and feeds them in the everyday environments where they live, learn, and play.

Among school-aged children in Massachusetts living in poverty, over 60 percent are found in these 20 communities that are the focus of MCHI.



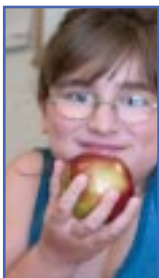
Photos Michael Dwyer

CHILD POVERTY IN THE MCHI TARGET COMMUNITIES ¹⁰

COMMUNITY	Children Ages 5 to 17 in Families in Poverty	COMMUNITY	Children Ages 5 to 17 in Families in Poverty
EASTERN MA		CENTRAL MA	
Boston	21,131	Athol	203
Brockton	3,517	Fitchburg	1,407
Chelsea	1,931	Orange	65
Fall River	3,863	Southbridge	669
Hyannis/Barnstable	1,009	Worcester	6,430
Lawrence	4,873	WESTERN MA	
Lowell	4,521	Chicopee	1,737
Lynn	4,017	Greenfield	624
New Bedford	4,669	Holyoke	3,084
Revere	1,464	Pittsfield	1,272
		Springfield	9,363
TOTAL IN THE 20 TARGET COMMUNITIES		75,849	
MASSACHUSETTS TOTAL		123,193	

Access to Federal Food Programs

Photo Paul Shoul



Government-sponsored nutrition programs include the Food Stamp Program, WIC (the Special Supplemental Nutrition Program for Women, Infants, and Children), School Meals, and the Summer Food Service Program. These programs are funded by the federal government but are administered by different state agencies: The Food Stamp Program by the Department of Transitional Assistance (DTA), WIC by the Department of Public Health (DPH), and both School Meals and the Summer Food Service Program by the Department of Education (DOE).

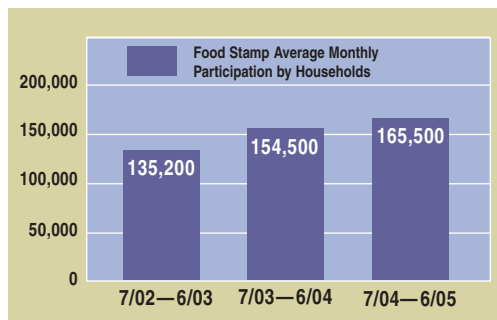
Food stamps provide eligible families in Massachusetts with an average of \$164 per month for food purchases.¹¹ The three-person household headed by a child-care worker (see *Monthly Budget for a Child-Care Worker*, p. 1) would qualify for \$112 in food stamp benefits per month — an amount that could significantly improve the family's ability to afford nutritious food.

In Massachusetts, families with children may be eligible for food stamps with income up to 200 percent of the poverty level. Unfortunately, according to the USDA's latest report, only 39 percent of those eligible were enrolled.¹² The obstacles to enrollment include inconvenient state office hours, transportation difficulties, a complicated application process, language barriers, and a lack of awareness of the benefits of the program.

Improving Enrollment

In order to reduce these obstacles, Project Bread developed an online food stamp application in collaboration with the DTA. Since most low-income families do not own computers, Project Bread is making the online application available at sites where families regularly seek services. Low-income families now have access to the online application at over 50 community-based agencies in Massachusetts.

This year, the USDA and DTA also launched a major marketing campaign to improve awareness of the Food Stamp Program. All of these recent efforts have led to a modest increase in food stamp participation. However, the program still fails to reach close to half of those eligible in Massachusetts.



Over the last three years, the number of households in Massachusetts enrolled in the Food Stamp Program has increased by 22 percent.



Photo Paul Shoul

WIC is a health, nutrition education, and prevention program aimed at pregnant women, infants, and children up to age five. WIC participants receive supplemental foods through a monthly package tailored to meet their special dietary needs. The average monthly food benefit is \$34 per participant.¹³ In Massachusetts, 28,000 women and 88,000 infants and children were enrolled in the program in 2004.¹⁴ WIC has maintained approximately the same number of participants for the past ten years and, according to the DPH estimates, reaches the vast majority of eligible parents and children — more than 80 percent.

School Meals include the National School Lunch and School Breakfast Programs. Based on household income, families with school-aged children can apply for reduced-price or free school meals. Approximately 226,000 children take advantage of the School Lunch Program in Massachusetts, but only 43 percent of these children receive school breakfast.¹⁵

Because school breakfast has been shown to improve student health and academic performance, over 300 schools in low-income communities now offer free breakfast to all students. At schools with these “universal” breakfast programs, the level of student participation is 65 percent, significantly higher than the statewide average.

School Breakfast and MCAS

Researchers at the University of Massachusetts Boston recently completed a preliminary study of the relationship between school breakfast participation and MCAS scores. In schools where between 60 and 80 percent of the students are eligible for free or reduced-price school meals, they found that school breakfast participation is directly correlated with higher MCAS scores. This finding holds for English and Math scores for elementary school students and is statistically significant. When the school breakfast participation rate is over 80 percent, MCAS scores are significantly higher than when participation is at lower levels.

The Summer Food Service Program

ensures that low-income children receive nutritious food when school is not in session. The USDA provides funding to reimburse eligible sponsors for meals served to children at summer programs. In July 2004, the program served 46,000 children at 671 sites across Massachusetts.¹⁶ At this level, however, summer meals reach only 20 percent of children receiving free or reduced-price lunch during the school year.

Supporting Local Economies

According to the Tax Foundation, Massachusetts ranked 44th among the states in the return on federal tax dollars in fiscal year 2003.¹⁷ The Commonwealth received only 78 cents in federal spending for every tax dollar its residents sent to the Internal Revenue Service. This is a sharp decrease from twenty years ago when the Commonwealth got \$1.09 back for every dollar sent.

Massachusetts is missing an opportunity to capture millions of federal dollars available through the Food Stamp, School Breakfast, and Summer Food Service Programs. If participation in these three nutrition programs increased from current levels to 66 percent of those eligible, Massachusetts would receive \$103 million in additional federal revenues. In large part, these new federal dollars would be spent in grocery stores and markets, aiding the economy of the state's poorest communities.

SOURCE OF ADDITIONAL REVENUE FOR MASSACHUSETTS

Nutrition Program	Potential Federal Benefits at 66 Percent Participation	Actual Federal Benefits FY04 ¹⁸	Difference in Additional Federal Dollars
Food Stamps	\$386,381,000	\$304,421,000	= \$ 81,960,000
School Breakfast	\$ 35,193,000	\$ 22,929,000	= \$ 12,264,000
Summer Meals	\$ 13,721,000	\$ 4,158,000	= \$ 9,563,000
TOTAL	\$435,295,000	\$331,508,000	= \$103,787,000

Increased participation in these three federal nutrition programs would leverage over \$100 million in increased federal revenues for the Commonwealth. Currently, this Massachusetts tax-payer money is being left on the table.



“ If participation in these... nutrition programs increased... to 66 percent of those eligible, Massachusetts would receive \$103 million in additional federal revenues. ”

Hunger is a Health Issue . . . So Let's Treat It Like One



Simply put, poor nutrition leads to poor health. Malnutrition, which occurs primarily in developing countries, has long been recognized as the leading global risk factor for disease because it weakens the body's defenses against infection.¹⁹ The most common form of malnutrition is called "protein energy deficiency" and is the result of a diet lacking basic carbohydrates, fats, and proteins. This type of diet is usually also deficient in micronutrients, such as vitamins, iodine, iron, and zinc. According to the World Health Organization, malnutrition and micronutrient deficiencies are the cause of over half of childhood deaths in developing countries.²⁰

Although severe malnutrition is rare in the United States, recent government-sponsored national surveys have shown that 11.2 percent of U.S. households (12.6 million) were food insecure in 2003, meaning that they were uncertain about having, or unable to acquire, enough food for all their members at some point during the year.²¹ About 3.9 million of those households were food insecure to the extent that one or more of their members experienced hunger. In Massachusetts, 6.2 percent of households were food insecure and 2.3 percent (approximately 58,000 households) were food insecure with hunger.

The effects of food insecurity on the health of children and senior adults are of particular concern.^{22, 23, 24} The diets of hungry children and food-insecure seniors have been found to lack micronutrients, suggesting that this nutritional deficiency plays a role in their increased risk for illness, just as it does in people suffering from malnutrition.^{25, 26}

The Consequences of Child Hunger

Several recent studies have confirmed that hunger seriously harms children's health. Researchers at urban medical centers in the U.S., including Boston, interviewed caregivers of young children in hospital clinics and emergency departments. They found that, since birth, food-insecure children had nearly a third greater chance of being hospitalized than food-secure children.²⁷

In a study of homeless and low-income families in Worcester, severe hunger was a significant predictor of chronic health problems among school-aged children.²⁸ The study also found that one-quarter of preschool aged children with severe hunger had low birth weights, as compared with five percent of children who had not experienced hunger. Low birth weight results in a host of physical and cognitive developmental delays.²⁹ All of this evidence demonstrates the toll that hunger takes on the lives of children, the heartache it causes their families, and the financial burden that hunger creates for the health care system through higher rates of hospitalization and chronic illness.

Increased Risk of Obesity

Another health problem related to hunger, paradoxically, is obesity (see Project Bread's 2004 report, *The Link between Hunger and Obesity*). Researchers have determined that the same lack of financial resources that leads to hunger can also lead to weight gain.³⁰ When a family does not have enough money for adequate food, often a choice is made to fend off hunger with readily available, inexpensive foods. These foods are primarily ones that are high in sugar, fat, and calories. Studies conducted in low-income neighborhoods in Boston found that healthy foods are more expensive and financially out of reach for most families living in poverty.^{31, 32} The inability to afford a healthy diet appears to be a major contributor to the rise in obesity among low-income families.

Assessing Hunger in the Health Care Setting

While there is substantial evidence for the adverse effects of hunger on health, health care professionals rarely ask their patients about hunger. Doctors and nurses are reluctant to inquire about hunger because they are ill equipped to provide solutions. In turn, patients who experience hunger are often too embarrassed to admit that they cannot afford adequate food. These barriers to assessing hunger are of particular concern in the pediatric setting, since children are among those most at risk for poor health due to hunger. As noted by Dr. Linda Weinreb, a pediatrician at the University of Massachusetts Medical School, and her colleagues:

*"Although hunger is increasingly acknowledged to be associated with detrimental health, emotional, and learning outcomes, many health care providers do not ask questions to assess the presence or degree of hunger in their pediatric patients. Hunger is often hidden, even in families in which other indicators of poverty are evident."*³³

An Innovative Approach

If hunger contributes to poor health, an improved diet can contribute to healing from a variety of illnesses. In 2005, Project Bread partnered with community health centers to show that hunger prevention can be incorporated into the health care setting. The initiative, called the Pediatric Hunger Prevention Project, sought to identify hungry families and to intervene to help them. Community health centers were chosen because they are a highly effective venue for reaching out to low-income families: they have extended hours to accommodate working schedules, translators for non-English-speaking patients, and providers that have longstanding relationships with families, making them feel comfortable about receiving help.

The goals of the Pediatric Hunger Prevention Project were to 1) find a practical way for health care providers to screen families for hunger, 2) document the impact of hunger on health, and 3) demonstrate an intervention that can improve access to healthy food. As part of this project, researchers at Massachusetts General Hospital (MGH) developed and validated a single-question screening tool, posing the following question to patients:

"In the past month was there any day when you or anyone in your family went hungry because you did not have enough money for food?"

Using this screening tool in the pediatrics department of a community health center in Chelsea, 11 percent of patients' families reported food insecurity with hunger.³⁴ This is significantly higher than the statewide rate of 2.3 percent, but nearly the same rate of hunger determined by survey research in low-income communities in Massachusetts.³⁵ Also consistent with earlier studies, the MGH researchers found important trends for children from hungry families, including a higher prevalence of asthma, high lead levels, and failure to thrive. In addition, while examining the children's medical records, they found a higher prevalence of health problems in their parents.³⁶

When families were identified as hungry during the pilot, they received immediate help in the form of gift cards to a local supermarket and referrals to emergency food programs. In addition, these families received assistance in applying for federal nutrition programs that offer a more consistent source of food. As expected, many hungry families were found to be eligible, but not enrolled, in the federal nutrition programs. When screened, only 25 percent of eligible families were participating in the Food Stamp Program. Through the intervention of the health center staff, 58 percent of the families successfully received food stamp benefits.

The results of the Pediatric Hunger Prevention Project suggest that hunger screening can be put into practice during regular health check-ups and can reliably predict health problems. Furthermore, once hungry families are identified, they can be connected with ongoing food resources. Among physicians and nurses participating in the pilot, 92 percent were highly satisfied with hunger screening and felt that it should become a routine part of the health care visit. Among parents, 100 percent of those who received the intervention were satisfied with this new service. By adopting the same approach, health care providers in other low-income communities can take a major step toward securing the health of hungry children and their families.

Case Study

Community health centers provide a safe place for low-income families to receive assistance when facing hunger. The story of the Rosa family (names have been changed) is an example.

Cheryl Rosa came to the Chelsea Health Center with her two-week-old son, Ian, for a well-baby check-up. Upon screening, she indicated that her family, including her husband, Alan, and two-year-old daughter, Lisa, was experiencing hunger. Cheryl stopped working three months prior at a job that did not offer maternity leave. Meanwhile, Alan did not earn enough to cover their expenses, so they often ran out of food and were unable to buy more. With a newborn at home, Cheryl was very anxious about their situation.

Although the family was enrolled in WIC, Cheryl did not know about the Food Stamp Program. The health center case manager met with Cheryl and determined that the family qualified for food stamp benefits. While they met, the case manager helped Cheryl use Project Bread's online application to apply for food stamps. And before leaving the health center, Cheryl received a \$40.00 supermarket gift card and a referral to a local emergency food pantry.

Three weeks after her visit to the health center, Cheryl called her case manager at the health center and said, "We're so happy we got our food stamps — now we can buy the food we need." The family had been approved for \$175.00 per month in food stamp benefits. Fortunately, they will continue to receive this assistance each month until Cheryl is able to find a new job and return to work.



Photo Michael Dwyer

Summary

Thousands of families in Massachusetts experience hunger because they cannot afford adequate food. Due to the high cost of living, low-income families run out of money and run out of food for days or even weeks each month. This type of chronic, recurrent hunger increases the risk of illness, particularly among the very young and the very old. The long-term consequences of poor nutrition for children are severe, threatening our state's investment in their health and education.

The best solution to a public health problem is prevention and hunger should not be an exception to this rule. Although emergency food programs provide critical hunger relief, food pantries and soup kitchens were never intended to make up for chronic food shortages in low-income households. The key prevention strategy is to make better use of the federal nutrition programs that can be a consistent source of nutritious food for low-income families and children.

Through the Massachusetts Child Hunger Initiative (MCHI), Project Bread is demonstrating ways to boost participation in the federal nutrition programs. MCHI takes a community-based approach to hunger prevention, involving political, business, health, and education leaders along with emergency food providers and other local agencies that serve low-income families. Health care professionals have a critical role in this effort, identifying hungry families, providing immediate assistance, and helping them access on-going nutrition benefits.

While hunger is a symptom of poverty, we need not wait for an end to poverty to find innovative ways to end hunger. By increasing access to nutritious food for thousands of struggling families, hunger prevention can decrease the demand for emergency food in Massachusetts, preserving food pantries and soup kitchens as a last resort for those facing an immediate food crisis. More importantly, hunger prevention will improve nutrition and ensure a healthier future for our most vulnerable children and families.

Recommendations

Project Bread has demonstrated that these steps can reduce the prevalence of hunger:

- Adopt a public health approach to ending hunger by making screening for hunger a routine part of primary care and by assisting hungry families on-site at community health centers.
- Expand the availability of the online food stamp application to make it easier for eligible families to enroll.
- Provide breakfast to children at the start of every school day and implement universal breakfast programs at all schools in low-income communities.
- Ensure that school breakfast and lunch, along with summer meals, meet the highest standards for nutritional quality.
- Add sites for summer meals that include high quality recreational activities to help more children eat well and exercise when schools are not in session.
- Increase participation in the federal nutrition programs to at least 66 percent of those eligible to bring an additional \$100 million in federal benefits into Massachusetts each year.



Photo Michael Dwyer

Project Bread – The Walk for Hunger



Photo Michael Dwyer

Project Bread is working to improve access to quality nutrition for low-income families. The children at this Lawrence school are participating in a Better Breakfast Program developed in partnership with experts from the Harvard School of Public Health.

As the state's leading antihunger organization, Project Bread's mission is to alleviate, prevent, and ultimately end hunger in Massachusetts. Project Bread strives to make emergency food accessible to people who would otherwise go hungry; to educate, mobilize and empower people through The Walk for Hunger and other avenues of action; to research and develop innovative solutions to hunger; and, in partnership with others, to advocate freedom from hunger across the Commonwealth. Project Bread grew out of The Walk for Hunger, its signature event, which today raises millions yearly to fund 400 emergency food programs through Massachusetts.

Notes

1 DeNavas-Walt, C., Proctor, B.D. and Lee, C.H., **Income, Poverty, and Health Coverage in the United States: 2004**, U.S. Census Bureau, Current Population Reports, P60–229, Washington, D.C., 2005.

2 **The 2005 Health and Human Services Poverty Guidelines**, Federal Register, Vol. 70, No. 33, 2005.

3 Waldron, T., Roberts, B. and Reamer, A., **Working Hard, Falling Short: America's Working Families and the Pursuit of Economic Security**, Report of the Working Poor Families Project, 2004.

4 **Fair Market Rent History 2000 to 2005**, U.S. Department of Housing and Urban Development, Office of Policy Development and Research, 2005.

5 **May 2004 State Occupational Employment and Wage Estimates: Massachusetts**, U.S. Department of Labor, Bureau of Labor Statistics, 2005.

6 **Official USDA Food Plans: Cost of Food at Home at Four Levels, U.S. Average, June 2005**, U.S. Department of Agriculture, Center for Nutrition Policy and Promotion, 2005.

7 **2005 Emergency Food Report**, Project Bread – The Walk for Hunger, 2005.

8 Briefel, R., Jacobson, J., Clusen, N., Zavitsky, T., Satake, M., Dawson, B. and Cohen, R., **The Emergency Food Assistance System—Findings from the Client Survey**, U.S. Department of Agriculture, Food Assistance and Nutrition Research Report, No. 32, 2003.

9 **Massachusetts Hunger Assessment**, Center for Survey Research, University of Massachusetts Boston, 2003.

10 **Small Area Income and Poverty Estimates: Estimates for Massachusetts School Districts, 2002**, U.S. Census Bureau, 2005.

11 **Food Stamp Program: Average Monthly Benefit Per Household**, U.S. Department of Agriculture, Food and Nutrition Service, 2005.

12 Castner, L.A. and Schirm, A.L., **Reaching Those in Need: State Food Stamp Participation Rates in 2002**, U.S. Department of Agriculture, Food and Nutrition Service, 2005.

13 **WIC Program: Average Monthly Benefit Per Person**, U.S. Department of Agriculture, Food and Nutrition Service, 2005.

14 Henchy, G., Weill, J., Parker, L., Cama, S. and Browning, D., **WIC in the States: Thirty-One Years of Building a Healthier America**, Food Research and Action Center, 2005.

15 Rosso, R., Woo, N., Andrews, P.J., Parker, L. and Weill, J., **School Breakfast Scorecard: 2004**, Food Research and Action Center, 2004.

16 Rosso, R., FitzSimons, C.W., Cama, S., Parker, L. and Weill, J., **Hunger Doesn't Take A Vacation: Summer Nutrition Status Report**, Food Research and Action Center, 2005.

17 **Federal Spending in Each State Per Dollar of Federal Taxes, FY 2003**, Tax Foundation, 2005.

18 **Program Data: Annual State Level Data**, U.S. Department of Agriculture, Food and Nutrition Service, 2005.

19 Davidson, F., Nutrition and Health, in *Nutrition: A Foundation for Development*, United Nations Standing Committee on Nutrition, 2002.

20 **Quantifying Selected Major Risks to Health**, The World Health Report, World Health Organization, 2002.

21 Nord, M., Andrews, M. and Carlson, S., **Household Food Security in the United States, 2003**, U.S. Department of Agriculture, Food Assistance and Nutrition Research Report, No. 42, 2004.

22 Alaimo, K., Olson, C.M., Frongillo, E.A. and Briefel, R., **Food Insecurity, Family Income, and Health in U.S. Preschool and School-Aged Children**, American Journal of Public Health, 2001.

23 Casey, P.H., Szeto, K.L., Robbins, J.M., Stuff, J.E., Connell, C., Gossett, J.M. and Simpson, P.M., **Child Health-Related Quality of Life and Household Food Security**, Archives of Pediatrics and Adolescent Medicine, 2005.

24 Lee, J.S. and Frongillo, E.A., **Nutritional and Health Consequences Are Associated with Food Insecurity among U.S. Elderly Persons**, Journal of Nutrition, 2001.

25 Kleinman, R.E., Hall, S., Green, H., Korzec-Ramirez, D., Patton, K., Pagano, M.E. and Murphy, J.M., **Diet, Breakfast, and Academic Performance in Children**, Annals of Nutrition and Metabolism, 2002.

26 Lee, J.S. and Frongillo, E.A., op. cit. (See note 24.)

27 Cook, J.T., Frank, D.A., Berkowitz, C., Black, M.M., Casey, P.H., Cutts, D.B., Meyers, A.F., Zaldivar, N., Skalicky, A., Levenson, S., Heeren, T. and Nord, M., **Food Insecurity is Associated with Adverse Health Outcomes among Human Infants and Toddlers**, Journal of Nutrition, 2004.

28 Weinreb, L., Wehler, C., Perloff, J., Scott, R., Hosmer, D., Sagor, L. and Gundersen, C., **Hunger: Its Impact on Children's Health and Mental Health**, Pediatrics, 2002.

29 Kilbride, H.W., Thorstad, K. and Daily, D.K., **Preschool Outcome of Less Than 801-Gram Preterm Infants Compared with Full-Term Siblings**, Pediatrics, 2004.

30 Townsend, M.S., Pearson, J., Love, B., Achterberg, C. and Murphy, S.P., **Food Insecurity is Positively Related to Overweight in Women**, Journal of Nutrition, 2001.

31 Neault, N., Cook, J.T., Morris, V. and Frank, D.A., **The Real Cost of a Healthy Diet: Healthful Foods Are Out of Reach for Low-Income Families in Boston, Massachusetts**, Report published by the Boston Medical Center Department of Pediatrics, 2005.

32 Johnson, P., Fulp, R., Wilson, R., Schuetz, B. and Orton, P., **Barriers to Eating a Heart Healthy Diet in a Low Income African American Community**, A Special Report of the Healthy Heart Initiative, The Mary Horrigan Connors Center for Women's Health and Gender Biology, Brigham and Women's Hospital, 2004.

33 Weinreb, et al., op. cit. (See note 28.)

34 Kleinman, R.E., Wieneke, K.M., Desmond, M.S., Schiff, A., Gapinski, J.A. and Murphy, J.M., **Hunger and Food Insecurity in Children Attending a Low-Income Neighborhood Health Center; Validation of a Single-Question Screening Tool**, submitted for publication.


35 **Massachusetts Hunger Assessment**, op. cit. (See note 9.)

36 Desmond, M.S., Wieneke, K.M., Cully, J., Schiff, A., Murphy, J.M. and Kleinman, R.E., **Medical Diagnoses in Hungry and Food Insecure Children Attending a Low-Income Neighborhood Health Center**, submitted for publication.

Project Bread
Feeding people  nourishing hope

145 Border Street
East Boston, MA 02128-1903
Tel 617-723-5000
Fax 617-248-8877

www.projectbread.org

© 2005 Project Bread – The Walk for Hunger
Printed on Recycled Paper  Using Soy-Based Inks
Made in Massachusetts.