

# LOCAL FOOD SYSTEMS: BUILDING HEALTH & WEALTH IN METRO DENVER

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Health & Wellness Commission

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## Invest In Healthy, Vibrant Communities

Cultivating local farm and food businesses while fostering healthy lifestyles, based on fresh local foods and adequate exercise, would create thousands of new jobs and reduce health care costs in the Metro Denver area. The time is ripe for local leaders to reclaim a food system that builds health, wealth, connection and capacity in our communities.

### Denver Faces A Double Crisis: Food & Health

Food consumption habits contribute to the leading causes of death. A high-calorie diet, combined with a lack of exercise, accounts for one-fifth of the annual deaths in the U.S.<sup>1</sup> Six of the fifteen leading causes of death are related to poor diet and low physical activity.<sup>2</sup>

The Centers for Disease Control and Prevention report that 56% of Metro Denver residents are overweight or obese.<sup>3</sup> The rate of increase is higher in the metro area than for Colorado as a whole.<sup>4</sup> Mortality from diabetes, another condition related to diet, increased 97% from 1990 to 2004.<sup>5</sup> Statewide, 2,000 Coloradans die from diabetes-related illness each year;<sup>6</sup> the medical costs for treating obesity totaled \$874 million in 2000.<sup>7</sup>

Also troubling for Denver's long-term future, researchers predict that children will have a shorter life expectancy than their parents.<sup>8</sup> Almost 30% of children are overweight, or at risk for becoming overweight.<sup>9</sup> The number of children diagnosed with Type II diabetes continues to rise.<sup>10</sup> These trends and costs are a reflection of the instability of our food system.



### **One-fifth Of Denver Faces Food & Health Deficits**

These conditions often create an even harsher impact on low-income residents. Over 500,000 residents — one in every five — earn so little that they cannot eat nutritious and safe food year-round.<sup>11</sup>

These low-income residents spend \$960 million buying food in Metro Denver grocery stores each year, including \$175 million from food stamps (now called the Food Assistance

program) and the Special Supplemental Nutrition Program for Women, Infants and Children (WIC) vouchers. Yet, these consumers are rarely considered in food systems planning.<sup>12</sup>

### **Moving To Healthier Farming & Eating**

Eating fruits, vegetables and whole grains is vital to our health, and would help reduce the risks of cancer, heart disease, stroke, diabetes, arthritis, birth defects, and osteoporosis.<sup>13</sup> Yet only 12% of Metro Denver children, and 24% of adults, eat the recommended five servings of fruit and vegetables each day.<sup>14</sup>

Few of these foods are produced by metro farms for Denver consumers. In fact, the largest single source of income for Denver area farmers (\$84 million of \$185 million in product sales) is selling ornamental and nursery crops.<sup>15</sup> This may improve landscaping, but makes Denver farmers dependent on urban sprawl — which, in turn, takes more farmland out of production.

Metro Denver has 10% of Colorado's farms, but these farms sell only \$5 million of foods directly to consumers. That is only 2.6% of metro farm sales and 0.1% of consumer demand.<sup>16</sup> We are a long way from producing the key foods our region needs for sound nutrition and health.

For Colorado as a whole, 82% of farm sales involve animals, animal feeds, fuel, or industrial raw materials largely for commodity export.<sup>17</sup> Moreover, with one-quarter of the Metro Denver area's farmland under irrigation,<sup>18</sup> we use a great deal of scarce water on our farms — but not to feed ourselves.

As a result, Denver imports most of its food from distant sources, sending money away from the region. The average food item in the Midwest travels 1,500 miles from farm to plate.<sup>19</sup> This is only one of many reasons we are deeply dependent on oil to eat.<sup>20</sup>

As the global supply of oil peaks, and oil prices waver, Denver communities will be forced to build a food system that provides more fresh, healthy choices. Conditions change in ways we cannot predict; however, Metro Denver can act now to create local efficiencies in food transportation and distribution. The sooner we take action, the more we can accomplish while we still have oil available to build local infrastructure and resilient communities.

### **Denver Food Markets Are Robust, But Billions Flow Out**

Metro Denver residents buy nearly \$6 billion of food each year — more than all the income earned by Colorado's farmers.<sup>21</sup> With this consumer clout, local markets can support local farms and food businesses. Experts estimate that well over 90% of the food eaten in Denver is raised outside the metro area — so a staggering \$5.4 billion flows out of the region each year as consumers eat.<sup>22</sup> The food system literally creates poverty.



## Community-Based Foods Bring Many Benefits

Bringing the food supply back home brings great results. In an eight-county area of Iowa centered around Cedar Falls-Waterloo, the University of Northern Iowa's local foods initiative sparked \$2.2 million of new food sales in 2007.<sup>23</sup> Iowa State University research showed that if that region's consumers ate five locally-grown fruits and vegetables each day for only the three months when they are in season, it would create \$6.3 million of labor income, and 475 new jobs within the locale.<sup>24</sup>

Local food production can be a primary economic driver while decreasing poverty and building vibrant Metro Denver communities. In addition, eating fresh, healthy food grown by folks we

trust will improve our health, reduce health care costs and make our food supply more secure. Given our uncertain times - with changing climate, dwindling fuel supplies, concerns about water quality and availability, and food safety scares - the Metro Denver region will gain greater resiliency in adapting to such changes if decisions about food are made locally.



## EFFECTIVE LOCAL ACTIONS

Local policies carry great impact, even amidst global commodity markets. Metro Denver can take the lead in cultivating a nationally-recognized model food system that builds health, wealth, connection and capacity in our communities.<sup>25</sup>

Effective local policies start by implementing the following strategies:

1. Engage all residents in working to provide fresh, healthy food to all regardless of income.
2. Mobilize residents, businesses, public agencies, researchers, nutrition and health professionals, extension agents, and farm organizations to form a "community of practice" which fosters local collaboration, research and outreach that builds a local foods economy.
3. Invest in education and mobilization to promote healthy eating, active lifestyles, and social connection. Involve Metro Denver residents in a broad civic dialogue about the quality and future of food and health.
4. Regularly assess the Metro Denver food system and the capacity to produce food for residents.
5. Invest in public and private infrastructure that creates efficiencies for local food trade. This may include building links among food businesses and residents; fostering work and technical skills; and creating permanent physical structures, such as value-added processing, storage, coolers, and efficient local transportation and distribution channels.
6. Protect farmland and agricultural water rights permanently, with a priority on food production.
7. Promote the adoption of incorporating productive farms into new projects, sufficient to feed at minimum the populations that will work or live in each new development.
8. Grow new farmers through training, financial assistance for entry-level food production, and networking among producers.



## References

- 1 McGinnis, J.M. & W.H. Foege (1993). Actual causes of death in the United States. *JAMA* 270(18):2207-12; and Mokdad, A.H., J.S. Marks, D.F. Stroup, & J.I. Gerberding (2000). Actual causes of death in the United States. *JAMA* 291(10):1238-45 [with published corrections in *JAMA* (2005), 293(3), 293-294.]
- 2 Heron M., D.L. Hoyert, J. Xu, C. Scott, & B. Tejada (2008). *Deaths: preliminary data for 2006*. National Vital Statistics Report 56:16. [http://www.cdc.gov/nchs/data/nvsr/nvsr56/nvsr56\\_16.pdf](http://www.cdc.gov/nchs/data/nvsr/nvsr56/nvsr56_16.pdf).
- 3 Centers for Disease Control and Prevention, National Center for Chronic Disease Prevention and Health Promotion, Behavioral Risk Factor Surveillance System (2006). *SMART: Selected Metropolitan/Micropolitan Area Risk Trends, Denver-Aurora, CO Metropolitan Statistical Area, 2002-2006*. <http://apps.nccd.cdc.gov/brfss-smart/>. Data from Finkelstein E, Fiebelkorn I, Wang G (2004). State-level estimates of annual medical expenditures attributable to obesity. *Obesity Research* 12(1):18-24.
- 4 Centers for Disease Control and Prevention, BRFSS (2006).
- 5 National Association of County and City Health Officials (NACCHO) Big Cities Health Inventory (2007). <http://www.naccho.org/>.
- 6 Colorado Department of Public Health and Environment (2006). Colorado Diabetes Prevention and Control Program. <http://www.cdph.state.co.us/pp/diabetes/stats.html>.
- 7 Centers for Disease Control and Prevention, BRFSS (2006).
- 8 Olshansky S., et al. (2005). A potential decline in life expectancy in the United States in the 21st Century. *NEJM* 352:1138-1145.
- 9 Colorado Department of Public Health and Environment (2006). *Overweight, Physical Activity and Nutrition Among Colorado Children and Youth: A Data Resource*. December. <http://www.cdph.state.co.us/>.
- 10 Colorado Department of Public Health and Environment (2006). Colorado Diabetes Prevention and Control Program. <http://www.cdph.state.co.us/pp/diabetes/children.html>.
- 11 Data covers Metro Denver residents living below 185% of poverty level, where students qualify for free or reduced school lunches and is a better measure of a livable wage than the poverty line. <http://www.census.gov>. Food stamp data [\$144 million] from Bureau of Economic Analysis [<http://www.bea.doc.gov/bea/regional/reis/>]; WIC data [\$31 million] from metro counties.
- 12 Food consumption estimates from Bureau of Labor Statistics Consumer Expenditure Survey [<http://www.bls.gov/cex/home.htm>], and federal Census data. Reported in Meter, Ken (2008). *Finding Food in Metro Denver*. Prepared for Metro Denver Health and Wellness Commission. <http://www.crcworks.org/denversum08.pdf>.
- 13 Hyson, D. (2002). *The Health Benefits of Fruits and Vegetables: A Scientific Overview for Health Professionals*. Produce for Better Health Foundation.
- 14 Centers for Disease Control and Prevention, BRFSS (2005).
- 15 U.S. Census of Agriculture (2002). <http://www.nass.usda.gov/census/>.
- 16 U.S. Census of Agriculture (2002).
- 17 USDA Economic Research Service (2006). Leading Commodities by State. <http://www.ers.usda.gov/Data/FarmIncome/firkdmuxls.htm>
- 18 U.S. Census of Agriculture (2002).
- 19 Pirog, R., T. van Pelt, K. Enshayan & E. Cook (2001). *Food, Fuel and Freeways: An Iowa perspective on how far food travels, fuel usage, and greenhouse gas emissions*. Leopold Center for Sustainable Agriculture, Iowa State University, June.
- 20 Research shows that 17% of all energy used in the U.S. is devoted to the food system. This totals \$139 billion of energy costs each year. Calculated from ratio determined by FEA study [Federal Energy Administration (1976). *Energy Use in the Food System*, Number FE 1.2:F73, May, p. III-14.], using Department of Energy data for energy consumption (\$694 billion in 2001 -- DOE Table 1.5 Energy Consumption, Expenditures, and Emissions Indicators, 1949-2004. Viewed Nov. 27, 2005 at <http://www.eia.doe.gov/emeu/mer/consump.html>). See Meter, Ken (2006). U.S. Food Market Highlights. <http://www.crcworks.org/foodmarkets.pdf>.
- 21 Estimate by Ken Meter, Crossroads Resource Center, using Bureau of Labor Statistics (BLS) data [<http://www.bls.gov/cex/home.htm>] and Federal Census data [<http://www.census.gov>]. Farm income from U.S. Census of Agriculture; <http://www.nass.usda.gov/census/>. See Meter (2008).
- 22 Estimate by Ken Meter, Crossroads Resource Center, using BLS and Agriculture Census data cited above. See Meter (2008).
- 23 University of Northern Iowa "Buy Fresh Buy Local" campaign. <http://www.uni.edu/ceee/foodproject/hist.htm>.
- 24 Swenson, D. (2008). *Economic Impact Summaries Covering Black Hawk County Region*. March. University of Northern Iowa Center for Energy and Environmental Education.
- 25 Pirog, R., et al (2006). *Developing a Vibrant and Sustainable Regional Food System: Suggestions for Community-Based Groups*. Leopold Center for Sustainable Agriculture, Regional Food System Working Group, Iowa State University, August. <http://www.leopold.iastate.edu/research/marketing.htm>.

## Metro Denver Health & Wellness Commission

Metro Denver Health and Wellness Commission includes Boulder County; City and County of Denver; and Jefferson, Douglas, Arapahoe and Aurora Counties

Mission:  
*Making Metro Denver America's Healthiest Community*

For further information, including supplementary resources and tools, please contact us at <http://www.mdhwc.org/contactus.htm> or (303) 477-9985

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