

Health Benefits of Urban Agriculture

Public Health and Food Security

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Health professionals increasingly recognize the value of farm- and garden-scale urban agriculture for nutritional health, personal wellness, urban greening, and an engaged and active citizenry. Growing food and non-food crops in and near town and cities contributes to healthy communities by engaging residents in work and pleasure that improves the well-being of themselves and the broader public.

The good news is that urban gardening and farming are experiencing a renaissance in North America. Significant amounts of food are cultivated by entrepreneurial producers, community gardeners, backyard gardeners, and even food banks, in vacant lots, parks, greenhouses, roof tops, balconies, window sills, ponds, rivers, and estuaries. The potential to expand urban production is enormous. One third of the 2 million farms in the United States are located within metropolitan areas, and produce 35 percent of U.S. vegetables, fruit, livestock, poultry, and fish.

Nutrition

Urban gardens and farms produce surprising amounts of fruits, vegetables, fish, poultry, and meat. In a 130-day temperate growing season, a 10'x10' meter plot can provide most of a 4-person household's total yearly vegetable needs, including much of the household's nutritional requirements for vitamins A, C, and B complex and iron.

Community and residential gardening, as well as small-scale farming promote nutrition and free household income for non-garden foods and other needs. Approximately every \$1 invested in a community garden plot yields \$6 worth of vegetables. Cooperative buying partnerships with urban area farmers, called Community Supported Agriculture (CSA), maximizes food quality at stabilized prices. Household garden donations and farm gleaning projects increase emergency food providers' access to their scarcest commodity, fresh fruits and vegetables.

Practical experience with food – cultivation, harvesting, purchasing in stores and farm stands, cooking – influences dietary knowledge and practice. Whether out of pride, pleasure, or nutritional sophistication, gardeners, including youth, eat what they grow and what they know.

Taste and the tactile experience of eating freshly picked produce have been identified as variables associated with increasing fruit and vegetable consumption. These are also the identified motivational factors for gardening and buying from local farm producers. Gardeners additionally save money and grow regional and cultural favorites that they might not be able to find in the markets.

PIC QUOTE

Exercise

Gardening and food production is good exercise, although its value is often discounted. When self-identified as exercise by research subjects or isolated by researchers, gardening has been connected to reducing risks of obesity (children and adults), coronary heart disease (for women and for men, notably menopausal women and elderly males), glycemic control and diabetes (adults, elderly men, Mexicans and Mexican-Americans), and occupational injuries (railway workers).

Research shows that gardening is a preferred form of exercise across age, gender, and ethnicity. Overall, older persons do more gardening than younger ones. Even moderate forms of garden exercise increase muscle strength and endurance in activity-reduced persons including pregnant women, cancer survivors, and those generally sedentary. Men identify gardening as "exercise" more often than did women though women and men report similar amounts of time gardening. Women may associate gardening with gendered household food-related chores rather than exercise.

Mental Health

Working with plants and being in the outdoors trigger both illness prevention and healing responses. Cultivation activities trigger both illness prevention and healing responses. Health professionals use plants and gardening materials to help patients of diverse ages with mental illness improve social skills, self-esteem, and use of leisure time. Horticulture therapy promotes plant-human relationships to induce relaxation and to reduce stress, fear and anger, blood pressure, and muscle tension.

Community Food Security

Community food security (CFS) exists when all community residents obtain a safe, culturally acceptable, nutritionally adequate diet through a sustainable food system that maximizes community self-reliance and social justice.
Hamm & Bellows 2003 *J Nutr Ed & Beh* 35(1):37-43

Urban agriculture provides a buffer both against local economic insecurity as well as periods of war and conflict that can disrupt normal food flows. Gardeners share food with friends, families, and neighbors as well as members of their community in need, for example, through the “plant-a-row” project that encourages gardeners to set a specific space aside for donations.

States and regions have instituted “buy local” policies to support local farmers and improve food markets. Town and city farmers markets now compete for farmer participants. CSAs link buyer collectives with local farmers. Federal programs have begun to support access to directly marketed fresh produce for low income groups and seniors. Through donations and gleaning opportunities, urban area farmers contribute to urban food banks and emergency food assistance programs.

Building Safe, Healthy and Green Environments

Community and educational lands dedicated to food production encourage participation in the vigor of a positive urban environment. Working collaboratively to “green” a neighborhood creates safe and pleasant neighborhoods that decrease air pollution, reduce crime and enhance civic life. Social engagement is positively correlated with personal attention to health care and wellness.

School-based urban agriculture programs teach young people about local and healthy food. Evidence points to a relationships between familiarity with foods and their consumption. This is especially important with regard to fruits and vegetables as a strategy to reduce obesity and chronic diseases. Youth gain gardening as a skill

and lifetime hobby that provides exercise, mental stimulation, and social interactions. Schools and colleges often donate a portion of their produce to the emergency food system. Farm-to-school and farm-to-college programs establish market relationships with local farms to secure the freshest and in season fruits, vegetables, and other products for consumption in school and college cafeterias.

Urban area gardens and farms advance the health of the environment as well as that of human residents. Cultivation improves air quality and increases biodiversity. Rooted plants stabilize the ground and reduce soil erosion. Cared-for soils absorb rainfall that then does not run over exposed, compacted dirt and pavement absorbing toxic debris and dumping it into storm drains. Urban compost systems can transform much of a city’s organic waste for beneficial re-use.

Planning for Urban Health Risks

Particularly in older cities, it is crucial to test soils for lead before growing food or even before allowing small children to enter and play in the garden spaces. Appropriate gardening practices reduce risk.

Recommendations for Health Professionals

Health professionals can increase the positive benefits of urban agriculture in many ways. For example:

- Cultivate a *Healing Garden* on idle land at your health department or facility.
- Encourage patients/clients to garden for exercise, nutrition, and physical and mental relaxation.
- Encourage patients/clients to shop at farmers’ markets, and where available, a local CSA.
- Introduce the subject of public health and urban agriculture in your professional associations.
- Work with local planners and policy makers to establish urban agriculture opportunities.
- Encourage State health departments to promote farmers’ markets and CSAs for WIC and seniors.
- Encourage farmers markets and CSAs to expand to include WIC recipients, other low income, and seniors.
- Provide support for community-based gardening projects.
- Support the national ‘farm-to-school’ movement.
- Support a “Garden at every school” program like the successful model in California.
- Envision and help plan a farm-to-hospital program.
- Join the Community Food Security Coalition and bring your expertise to our table.

For more information contact: Community Food Security Coalition; PO Box 209; Venice CA 90294;
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