

Smart Growth and Health for the Future: “Our Course of Action” Delaware County, Ohio

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Introduction

In 2004, Delaware County, Ohio, was the fastest growing county in Ohio and the eleventh fastest growing county in the nation. Even with a 71.4% increase in business establishments, less than 40% of Delaware County residents both live and work in the county. The population increased 30% from April 2000 to July 2004, when it reached 142,503. Delaware County, about 25 miles north of Columbus, has experienced challenges from rapid infrastructure development, subdivisions, and population increases. For the past 10 years, Delaware County has built new subdivisions in unincorporated areas being platted at approximately 3,000 new lots per year. In incorporated villages and cities another 1,000 lots are developed each year, adding up to 4,000 new homes, or approximately 10,000 new residents, to the county annually.

Background

In 1998, recognizing a growth trend and attempting to get ahead of the curve, the Delaware (County) General Health District (DGHD), specifically the environmental health division, began a long-term community environmental health assessment process to determine the environmental health concerns of its residents. During the assessment process, numerous environmental health and public health issues surfaced. DGHD collected data through county-wide focus groups, key informant telephone interviews, facilitated discussions, and a survey that identified issues associated with growth, environmental changes, and rapid development. These issues included an increase in car crash and pedestrian injuries and fatalities, air pollution, asthma, reduced physical activity, weight gain, decreased cardiovascular

health, water contamination, threats to mental health, and a reduced “sense of community.” In the assessment, residents identified the lack of recreation and open space as a top local problem in environmental health.

Effects of Growth

Another consequence of the increased development was a rise in water levels of streams and rivers. The extensive new construction of roads, paved parking lots, rooftops, and other impermeable surfaces prevented rainwater from completing its normal cycle of filtering through the ground. The increased volumes of water entering streams and rivers also made them more susceptible to periodic flooding, stream bank erosion, and habitat degradation. Since the mid-1980s, urban runoff caused floodplain elevations to rise by as many as three feet at the southern end of the Olentangy River watershed that flows through Delaware County. Recognizing this ominous trend, environmental health professionals and planners began to work together on strategies of proper storm water management, on-site wastewater systems, and preserving open space for storm water runoff and treatment.

Growth and development have also forced Delaware County to deal with poor air quality caused by traffic congestion. New development made up of large, single-use zones separated jobs, homes, and other destinations, and required trips to be made by car. Between 1990 and 2000 Delaware County experienced a 77% increase in personal vehicle use in the region. The central Ohio region including Delaware County is currently failing to meet federal standards for ozone pollution and registers unhealthy particle pollution levels.

Data collected and analyzed through the Behavioral Risk Factor Surveillance System (BRFSS) showed a measured increase in obesity in the county. Studies have shown a link between sprawling land use patterns, transportation systems, and obesity (Frumkin, Frank, and Jackson, 2004). A 2002 DGHD health survey (BRFSS) revealed that of the 1,067 local adults surveyed, 39% were overweight and 18% were obese. After collecting data from 2,718 students in 12 local schools, DGHD also determined that 29% of school-age students were overweight or at risk of becoming so. DGHD further determined that 11.5% of residents in Delaware County participate in regular physical activity; the Healthy People 2010 goal is 30%. It became apparent that partnerships were needed with planners and others to address more comprehensively environmental degradation, injury, obesity, and disease.

Partnerships and Data Collection

Delaware County’s community environmental health assessment process began in 1998 when the DGHD environmental health (EH) staff convened a committee of 26 volunteers from diverse organizations and agencies. These volunteers included representatives from the Nature Conservancy, local regional planning office, state Emergency Management Association, Ohio Wesleyan University, Ohio Environmental Protection Agency, the local sheriff’s office, Ohio State Parks, community residents, Delaware soil and water conservation district, solid waste district, PPG Industries, realtors, and a local elected official. The group used the Protocol for Assessing Community Excellence in Environmental Health (PACE-EH) tool to establish a framework for

the assessment process. The group became known as the PACE committee. The resulting framework validates the continuous engagement of the community in discerning priorities and influencing decision making.

The PACE committee embarked on ambitious data collection efforts aimed at ascertaining the communities' environmental public health concerns and determining whether the data supported the public's perceived concerns. Related objectives included collecting data and determining collection methods, accessing and evaluating local environmental conditions, and identifying populations at risk.

The committee divided the county into five geographic regions based on the demographic diversity of the area and set about gathering public input in all of those regions through focus groups (with the assistance of a consulting firm). The focus groups were conducted around June 1998 and involved a total of 65 participants randomly chosen via the telephone book from each region. The participants were asked questions such as, "What do you like best about living in Delaware County?" "What do you think is the biggest problem facing Delaware County today?" "What do you believe are the top five environmental health priorities?" DGHD also asked similar questions when they conducted 24 facilitated discussions throughout different townships, villages, and geographic regions of the county. Hundreds of participants came from every jurisdiction and several community organizations.

During this same time period, 26 key informants with environmental-health-related expertise were enlisted for a telephone interview to determine the main environmental health problems in the county and how to address them. Several other research efforts fed into the final research results, such as a health department booth at the Delaware county fair, where a computer-based survey designed to rank issues was performed. Two hundred county fair participants indicated their top five environmental concerns from the questionnaire. Also, 500 students were selected from senior high school government classes at five different schools to rank their top environmental concerns. Lastly, the questionnaire was sent out to every household in Delaware County, of which 1,200 questionnaires (3% response rate) were returned.

From the various data collection efforts, a number of high priority issues emerged, such as preserving recreation and open space, pre-

venting littering, improving environmental education, and addressing surface water quality. Many of these priorities, along with associated action steps determined during the above data collection processes, have been addressed in the ensuing years up to today. The top community priority determined by the assessment process was to provide more green space and walking and biking trails (see photo at right). Some of the more recently addressed action steps to address this priority are highlighted below, including the development of a smart growth plan that includes the adoption of conservation subdivision ordinances.

Smart Growth Plan

The Delaware County smart growth plan proposes to incorporate smart growth development concepts into new zoning language and will potentially connect the existing, isolated subdivisions using a system of greenway trails. Encouraging new infill development, retrofitting established communities, and providing alternative transportation options are priorities to support the greenways concept. The combined quality of life and health benefits make these strategies a priority for many. In June 2005, a partnership called the smart growth committee was created, which includes members of DGHD, Preservation Parks of Delaware County, Delaware County regional planning (DCRP), Delaware City parks and recreation, and Delaware County Friends of the Trail. When finalized, the Delaware County smart growth plan will describe a regional network of linear open space and trails that will connect neighborhoods (many of which lack sidewalks). It will also link parks, wildlife refuges, and other protected lands in the watershed to promote recreation, fitness, conservation, and alternative forms of transportation. The resulting greenway system will ultimately benefit not only Delaware County, but central Ohio as well.

Conservation Subdivisions Included Within the Smart Growth Plan

A decade of high growth in Delaware County has prompted several of its townships to re-examine their zoning codes and look for ways to improve them. For several years, DCRP and DGHD staff had advocated for conservation subdivisions (CSD). The conservation subdivision had been shown to be an ecologically and financially successful land planning tool in other states.

This relatively recent concept was originated by Randall Arendt in his 1996 book, *Conservation Design for Subdivisions*, and involves us-



Providing bike trails is one of the top priorities of the community.

ing innovative design techniques to "cluster" development in appropriate locations while setting aside sensitive conservation areas such as wetlands and floodplains. By reducing lot sizes, the developer limits the "footprint" of new development and is able to preserve the character of the landscape and minimize environmental impacts. While CSD is not an antidote to sprawl, it can nevertheless be a cost-effective approach for local governments to combine preservation and development.

Concord Township was the first township in Delaware County to incorporate conservation subdivision ordinances. The immediate result in Concord Township is Riverside Highlands, a 1000-acre CSD and golf course community on the Scioto River. With a density of .85 units per acre, the development will include a new sewer plant dedicated to the county, a fire station, and a new school site, plus a commitment by the developer to let cornfields revert to native tall prairie grasses and wildflowers. Fifty percent of the open space will be "natural" and the other half will become a golf course. The executive director of regional planning and many others see the process as a win-win because it has had such a profound change in the style of development within the same year it was adopted. For more information on CSD, please visit http://www.doa.state.wi.us/dir/documents/conserv_subdiv_Model_ordinance_Feb2001.pdf.

Community Initiatives

DGHD, specifically the environmental health and health education staff, continues to form partnerships with the community to establish and promote programs to address the community's health concerns that are related to rapid growth. DGHD staff collaborated with residents, county agencies, board of county commissioners, and others on the following activities:

- Several municipalities, county offices, and organizations collectively provided \$120,000 in matching funds to support their submission of a \$600,000 grant proposal to the Ohio Department of Natural Resources to complete a 2-mile section of the Ohio to Erie Trail through Delaware County. Through this joint effort, the funding was granted in 2006, and the creation of the trail begins this year.
- In 2005, the first county-wide “growth summit” was held to obtain community input into decision making related to growth issues and opportunities. The summit was devoted strictly to growth issues such as water and sewer plans, economic development, and alternative development patterns. The first summit was attended by over three hundred community leaders, elected and appointed officials, home builders, and others. Discussions included topics such as the creation of communities that provide opportunities to work and play close to home, careful stewardship of natural resources and agricultural land, and the support of mixed land uses and transportation choices. The successful Delaware growth summits have become part of a larger central Ohio planning process to anticipate and plan for growth over the next 25 years.
- DGHD and the local Cancer Society offered the program “Active for Life” to Delaware County employees. This 10-week workplace fitness program is designed to encourage employees to be more active on a regular basis by helping them to set individual goals and by forming teams and walking clubs for motivation and support. For more information, visit http://www.cancer.org/docroot/PED/content/PED_1_5X_Active_For_Life.asp.

Wisdom from Experience

- DGHD’s initial environmental health assessment process, along with development of close community partnerships, laid the foundation for future successes. Establishing trust and goodwill between county and city agencies and the community are necessary

prerequisites for building successful partnerships. These partnerships can also help local governments better deploy their resources, raise awareness of and mobilize the community, and increase grant opportunities.

- It is very important to include elected officials from the onset of the process and to have as many political subdivisions represented as possible.
- Having continuous factual media coverage is essential to keeping the public support. This reporting needs to include coverage of the community partners, their work within the collaborative partnership, and their vision of achieving an improved environment and quality of life.

Results

DGHD believes that their efforts to create community partnerships have been successful over the years, and those efforts led to the development of the innovative smart growth plan. Another notable outcome has been the passage of a park levy to fund park land development for Preservation Parks of Delaware County, which passed after seven unsuccessful attempts prior to the environmental health assessment process. With funding from the park levy, combined with other funding sources, Delaware County has been able to develop additional parks and trails.

In addition, Delaware County now has eleven proposed conservation subdivisions planned for development in the county. Developers and county officials are increasingly recognizing the importance of conservation subdivisions and the health benefits that they provide to the residents.

Looking Ahead

DGHD and the communities continue to look for ways to improve their quality of life, including striving for a strong economy, clean environment, good education system, and neighborhoods that are friendly, walkable, and free of crime. By following Delaware County’s model of developing a smart growth plan, urban, suburban, and rural jurisdictions can be more successful partnering together to enhance design,

connectivity, and the built environment. In support of this broad vision for the county, DGHD hopes to expand the regional greenway network and have all neighborhoods, schools, and neighborhood parks connected through a system of county walking and biking trails. Plans are underway to expand the county’s trail and greenway initiative to include the seven-county central Ohio region. In addition, DGHD will assist with the development of a central Ohio smart growth plan that will create greenways to connect central Ohio to surrounding counties.

Research shows that the way we plan, design, develop, and protect our communities affects public health. The health department’s innovative work in land use and data collection efforts have begun to show similar outcomes. Decisions about community design, transportation options, and zoning can impact health (especially overweight and obesity), environment, and social conditions. Implementing these concepts, Delaware County’s approach to smart growth and health continues to evolve and focus on complex and inter-related issues on public participation, environmental protection, sustainability, protection of open space, and better connectedness and design of buildings and spaces. ☺☺

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