DENSIY AND HEALTH

Introduction

Our changing demographics and smart growth strategies have called for new forms of dwelling units and more compact development in urban growth areas. This has led to some mental health and safety concerns among policy-makers. The Tacoma-Pierce County Health Department has taken the opportunity to examine this issue, and to propose suggestions to ensure high density environments are healthy and well-designed.

The definition of high density varies from jurisdiction to jurisdiction. Generally speaking, it refers to new residential/commercial development at a density higher than currently found in the existing community. In a suburban context, it does not necessarily mean “high-rise buildings” to which some scholarly articles refer. It may be infill development, accessory dwelling units or a group of dwelling units clustering around a common courtyard, etc.

Research Findings

Below are some relevant research studies and their findings over the last decade or so:

1. Jianling Li, Ph.D. and Jack Rainwater (2000). The Real Picture of Land-Use Density and Crime: A GIS Application. (http://proceedings.esri.com/library/userconf/proc00/professional/papers/pap508/p508.htm) A widely held belief is that high density land-use is intimately associated with high crime rate. As a result, elected officials often resist undertaking projects of high density development in their jurisdiction. However, results of GIS analysis show that a high crime rate is not necessarily linked to high density development, but more to the low socio-economic status of the delinquents. In addition, different types of crime are apt to occur in different types of neighborhoods. For example, car thefts tend to occur where there are large parking lots and burglaries tend to occur in more affluent neighborhoods. (Note: This article contains a list of bibliography for further research).

2. Gary W. Evans (2003). The Built Environment and Mental Health. (http://cmbi.bjmu.edu.cn/news/report/2004/Urban/view/31.pdf) This article reveals some methodological issues making it difficult to conclude the direct and indirect effects of high-rise and/or poor quality housing on mental health. It appears that residential crowding may elevate psychological distress, but do not produce serious mental illness. It also suggests that personal control, socially supportive relationships and restoration from stress and fatigue are all affected by the way we build our man-made environments.
   ([www.nmhc.org/files/ContentFiles/Brochures/Myth%20and%20Fact%20FINAL.pdf](www.nmhc.org/files/ContentFiles/Brochures/Myth%20and%20Fact%20FINAL.pdf)
   This article uses facts to de-mythesize those myths associating high density development with crime, traffic concern and poor quality of life. These myths are the result of memories people have of the very high-density urban public housing projects developed in the 1960s and 70s. The facts conclude that higher density housing puts less demand on schools, public services and infrastructure; increases property values; generates less vehicular traffic; shows no difference in crime rates; is less detrimental on the natural environment; attracts residents and businesses; responds to changing demographic needs and desires of all income groups.
   *(Note: Great national examples are cited in this article.)*

   This article examines the impact of higher density housing development on the quality of life of residents living within and adjacent to the development. It also examines the design quality of selected schemes. The general conclusion is that the higher density development has not had an adverse effect on people’s quality of life. Some elements are suggested making this a success. They include such factors as: close proximity of location and accessibility; putting “an eye on the street”; measures to reduce noise and parking requirements; public transport; street design; open space proximity; human-scale buildings; dwelling design; etc. Good design gives the place an identity.

   Echoing the findings of Evan’s (2003) study, this article suggests that, even discounting the socio-economic characteristics of residents, living in higher density housing appears to have a range of potential direct and indirect influences on mental health. Importantly, some of these impacts appear to be influenced by the location, design, construction, governance and maintenance of high density housing. The evidence on the impact of floor level is indicative rather than conclusive, but does suggest that floor level in high-rise housing (over 4 storeys) appears to be associated with mental health outcomes. People living on higher floors, particularly stay-at-home women with children, appear to be at greater risk of poor mental health. Contributing factors included anxiety about accidents and falls, particularly for parents of young children and the elderly, and a lack of social networks. It appears to be important to provide opportunities for “selective” interactions. Poor-quality housing, rather than high density housing, appears to be associated with greater psychological distress.
6. Badger, E. (2013). *Mixed-Use Neighborhoods May be Safer, Too.* (www.theatlanticcities.com/neighborhoods/2013/03/mixed-use-neighborhoods-may-be-safer-ones-too/4962/) This new study examined eight high-crime neighborhoods in LA. It concludes that commercial-only areas experience the highest crime rate. Simply by adding residential uses to a commercial area results in a 7% drop in crime rate. This may be due to adding a sense of ownership alongside the “eyes on the street”.

**Conclusions from a Healthy Community Planning Perspective**

Intensifying density has to be sensitively introduced within a context that is in proportion to the scale and design of the local community. Assuming that the type of density intensification occurring within our County would likely take the form of low-rise mixed-use development or multi-dwelling units of less than five storeys, it’s relatively safe to conclude that there is minimal association between density and health. Overall, the benefits of mixed-use developments appear to outweigh the risks.

There are factors involved in making higher density living a success. They include, but are not limited to, location and accessibility; “an eye on the street”; parking measures; public transport; street design; open space proximity; human-scale buildings; dwelling design; etc.

The above research findings affirm Tacoma-Pierce County Health Department’s position of placemaking via infill/intensification and mixed-use development which must have to be built upon a balanced foundation of “people-prosperity-planet”:

- People (providing a fair access to a range of choices, improving personal control and social support to enhance social wellness and selective interactions, etc.)
- Prosperity (providing family wage jobs in close proximity to high density developments, etc.) and
- Planet (providing easily accessible natural areas, parks, open space and public art work as a refuge and relief to reduce personal stress).

Tools will be available this summer in Health Department’s webpage to help you put on this “people-prosperity-planet” lens (www.tpchd.org/planningforhealthycommunities).

**Contact Information**

Amy Pow, MCIP  
Built Environment Liaison  
Tacoma-Pierce County Health Department  
apow@tpchd.org  
(253) 798-6456