Notes

1 Changing Local Systems to Promote Environmental Health and Justice

1. These engagement cores have had several names since first being established by then-NIEHS director Kenneth Olden in 1996 as "Community Outreach and Education Programs." For most of the time period discussed in this book (2005–2016), they were called Community Outreach and Engagement Cores before being renamed "Community Engagement Cores" in 2017 (O'Fallon et al. 2003). See also NIEHS (2018a), "Community Engagement Cores: Environmental Health Sciences Core Centers."

2 Standing Silos

1. The terms "population health" and "public health" are often used interchangeably in the popular media, but they have different meanings to many researchers and professionals (Kindig and Stoddart 2003). According to the Institute of Medicine, "Population health (also referred to in this report as the health of the population, or the public's health) is the focus of public health efforts. It refers to 'the health of a population as measured by health status indicators and as influenced by social, economic and physical environments, personal health practices, individual capacity and coping skills, human biology, early childhood development and health services'" (Institute of Medicine 2002).

2. The Federal Water Pollution Control Act Amendments of 1972 are commonly referred to as the Clean Water Act of 1972.

3. In states governed by "Home Rule," local governments have more control over land use than in states governed by "Dillon's Rule," which gives state government more power (Dannenberg, Frumkin, and Jackson 2011).

4. In 2016, California incorporated guidelines for promoting environmental justice into state law overseeing local planning (State of California 2016; Office of Environmental Health and Hazard Assessment 2018). The state directed that comprehensive

plans should "(A) Identify objectives and policies to reduce the unique or compounded health risks in disadvantaged communities by means that include, but are not limited to, the reduction of pollution exposure, including the improvement of air quality, and the promotion of public facilities, food access, safe and sanitary homes, and physical activity. (B) Identify objectives and policies to promote civil engagement in the public decision-making process. (C) Identify objectives and policies that prioritize improvements and programs that address the needs of disadvantaged communities" (State of California 2016).

3 Building Bridges

1. Most definitions of social determinants of health include environmental factors. In this context, the "environment" is all the characteristics of where we live, work, and play. Some public health professionals use the term "environment" to refer to both the social environment (e.g., family, community, etc.) and the physical environment as a function of place. This book focuses primarily on the physical resources, conditions, and exposures in people's neighborhoods and built environments. Thus, as used here, the term "social determinants of health" includes environmental determinants of health.

2. The Alma-Ata Declaration stated that primary health care "involves, in addition to the health sector, all related sectors and aspects of national and community development, in particular agriculture, animal husbandry, food, industry, education, housing, public works, communications and other sectors; and demands the coordinated efforts of all those sectors" (WHO 1978).

3. Ecosystem management is by definition a collaborative process. The term "collaborative environmental management" reflects that fact that some collaborative management institutions focus on subsets of activities or dynamics within ecosystems. Thus, while both "ecosystem management" and "collaborative environmental management" are used in this book, the latter term emphasizes the collaborative nature and diverse scope of these efforts.

4 The Coalition to Prevent Lead Poisoning

1. In 1986, Congress limited lead content in pipes and fixtures to 8 percent and in solder to 0.2 percent; lead in brass fixtures was also limited to 8 percent. As of 2014, lead in pipes and fixtures was further limited to 0.25 percent. Thus, fixtures and solder labeled "lead free" in the United States may still contain some lead (U.S. EPA 2018k).

2. Health departments usually report elevated blood lead level rates (EBLL) as the percentage of children tested for lead whose blood lead levels exceeded a certain concentration (in this case, 10 μg/dL). When reporting EBLL rates, it is important to note the "screening rate"—or the percentage of all children whose blood was actually tested. If the screening rate is low, or if the sample of children tested is not

representative of the whole population, the reported EBLL rate may not represent the actual percentage of children affected by lead. In places where only high-risk children are tested, the EBLL rate may greatly exceed the rate of EBLL in the entire population. Conversely, in communities where high-lead-risk children are not effectively identified and tested, the EBLL rate may underestimate the population rate. Complicating matters further, "screening" sometimes refers to asking the parent questions to determine whether the child is at risk for exposure to lead and should be tested; other times it refers to actual blood lead testing.

Testing rates in Rochester were among the highest in the state in 2000, with over 70 percent of children in Monroe County tested for lead before their second birthday (New York State Department of Health 2001). What the Coalition to Prevent Lead Poisoning (CPLP) reported as the "national lead poisoning rate" was based on National Health and Nutrition Examination Survey data (NHANES) (CDC 2018b). NHANES surveys and conducts medical exams of a sample of the population that is selected to create statistical estimates of the prevalence of health conditions in the entire population. The "national rate" of 2.2% used in CPLP's early communication materials was based on the 1999–2000 NHANES prevalence estimate for U.S. children ages 1–5 (Meyer et al. 2003). The statewide 1999 EBLL rate reported by the New York State Department of Health was 5.8 percent (Boyce and Hood 2002).

3. The Advertising Council of Rochester changed its name to Causewave Community Partners ("Causewave") in 2016 (www.causewave.org/who-we-are/), just prior to becoming CPLP's fiscal agent. Because of the ongoing relationship with CPLP under this new name, for clarity's sake it is referred to as Causewave Community Partners throughout this book, even in reference to its role during the time it was officially called The Advertising Council of Rochester.

4. The Finger Lakes Health Systems Agency (FLHSA), a regional community health planning organization, changed its name to Common Ground Health in 2017 (www.commongroundhealth.org/). Since this case focuses on the period during which the agency was known as FLHSA, that name is used throughout the book.

5. HUD estimated in 1990 that abatement could cost from $7,700 to $11,900 (for full removal) per unit (HUD 1990). Despite emerging evidence from HUD-funded control programs that actual costs might be significantly lower, Rochester housing agencies cited these higher estimates based on their experiences with "full rehabilitation" (National Center for Healthy Housing and University of Cincinnati Department of Environmental Health 2004; Boyce and Hood 2002).

5 Healthy Duluth

1. The primary funders of this HIA were the Health Impact Project, a collaboration of the Robert Wood Johnson Foundation and the Pew Charitable Trusts, the Kresge Foundation, and the Center for Prevention at Blue Cross and Blue Shield of Minnesota (PolicyLink 2011).

2. In 2016, the Center for Prevention at Blue Cross and Blue Shield of Minnesota committed $4 million over three years to reduce smoking and to support Health in All Policies projects aimed at reducing health disparities. This initiative included a grant to the Zeitgeist Center to "drive a regional health equity agenda by engaging health systems, local government, school districts and nonprofit organizations throughout the Duluth area" (Center for Prevention at Blue Cross and Blue Shield of Minnesota 2018b).

3. Considering multiracial individuals ("race alone or in combination with one or more other races," according to the Census), these minority populations increase to 3.5 percent (black or African American), 4.1 percent (American Indian and Alaska native), and 2.0 percent (Asian).

4. As described by Bunnell (2002, 344), the negotiated agreement to trench I-35 necessitated blasting large quantities of rock, which the city proposed using to extend the waterfront, creating space for the Lakewalk and a waterfront park. The cost savings realized from this local solution for disposal of the blasted rock helped subsidize planning, design, and construction of the Lakewalk.

5. To be inclusive and for simplicity's sake, "Healthy Duluth" is used here as an umbrella term for the built environment and health equity work undertaken in Duluth between 2009 and 2018 under various auspices and names, including Fit City, Healthy Duluth Area Coalition, the City of Duluth's health-focused planning efforts, and related elements of the Community Health Needs Assessment (Bridging Health Duluth) process. HDAC was the longest-running and broadest forum for coordinating this work. However, this discussion includes initiatives that predated or worked separately from HDAC, particularly those of the City of Duluth. These varied efforts built on, learned from, and supported each other.

6. This project was originally called the Western Port Area Neighborhoods plan and was later renamed the Irving Fairmount Brownfields Revitalization Plan; for clarity, the latter name is used here.

7. The Zeitgeist Center for Arts and Community was initiated with support from the Zeppa Family Foundation, which was established in 2005 with the goals of promoting a healthy environment, sustainability, social justice, and the arts in Duluth (Passi 2014). The Zeitgeist Center for Arts and Community is a community and grant-supported not-for-profit organization maintaining the original mission of the foundation. The Zeitgeist Center, located in downtown Duluth, operates the Zinema 2 movie theater, a black box theater, restaurant, gallery, meeting spaces, and staff offices, including those of the HDAC (Cuneo 2016; Zeitgeist Center for Arts and Community 2018).

8. The survey was initially developed in 1995 by St. Mary's Hospital (now part of Essentia Health), and the hospital system remained involved as a funder and contributor to survey design after it was taken over by Generations Health Care in 2005 (Peterson 2017).

9. Although the City of Duluth had a strong tradition of physical planning, according to Bunnell the planning department was essentially disbanded in 1999 because of the sitting mayor's view that excessive regulation was impeding economic development (2002, 374). A series of development conflicts and successful plans for downtown, the waterfront, and west Duluth in the late 1990s showed the need for and potential of effective planning. City leaders revitalized the planning department in preparation for the 2006 Comprehensive Plan update, the first since 1958.

10. In her first State of the City address in March 2016, Larson referenced the eleven-year life expectancy disparity between adjacent zip codes in Duluth, commenting that "our right to a good and healthy life should not be determined by our zip code, or our income, education, race, gender or religion. … My vision is of a healthy—prosperous—sustainable—fair—and inclusive community" (Larson 2016).

11. The "half and half tax" refers to authorization for Duluth to impose a half percent tax on food, beverage and hotel/motel sales, also known as the "tourism tax"(City of Duluth 2018b). The 2014 state legislative action allowed the city to reinstate tourism taxes that had previously funded improvements to the stadium and aquarium but sunsetted in 2012 (Pioneer Press 2014). The city council resolution authorizing the 2014 tax stated it was "for the purpose of funding an $18 million bond issue for the purpose of capital improvements to public facilities to support tourism and recreational activities in that part of Duluth lying west of 34th Avenue West." In 2015, this was amended to include areas "west of 14th Avenue West," allowing inclusion of Lincoln Park, the Cross City Trail, and other improvements in neighborhoods closer to the center city (City of Duluth 2018c).

12. Because of the age of the city, much of the infrastructure (roads, water lines, utilities) is aging and in need of repair. With the construction of the downtown Fond-du-Luth casino in 1988, the City received an annual payment based on the casino's profits (Bunnell 2002) (p. 361). This revenue stream was used to establish a fund, the interest from which was used for street improvements. However, in 2009 the casino successfully argued in court that the agreement was invalid and stopped paying the city what had amounted to $6 million a year (Kraker 2014). This loss compounded the city's budget challenges for funding infrastructure improvements.

13. Apparently this is not a new phenomenon. Jerry Kimball, Duluth's chief physical planner from 1968 to 1995, allegedly moved from St. Paul to Duluth because of its proximity to Boundary Waters canoeing (Bunnell 2002). According to Kimball, "More recently, Cirrus aircraft relocated because the owner just happened to drive through Duluth and liked what he saw" (Bunnell 2002, 377).

6 THE Impact Project

1. As of 2018, this "Global Trade Impacts" report had been downloaded over 1,500 times.

2. Multifamily residences and parks are required to post a sign reading: "NOTICE: Air pollution studies show a strong link between the chronic exposure of populations to vehicle exhaust and particulate matter from major roads and freeways and elevated risk of adverse health impacts, particularly in sensitive populations such as young children and older adults. Areas located within 500 feet of the freeway are known to experience the greatest concentration of ultrafine particulate matter and other pollutants implicated in asthma and other health conditions" (City of Los Angeles 2015).

7 Local Environmental Health Initiatives

1. With the development of tract-level data systems like the City Health Dashboard (www.cityhealthdashboard.com) and the Centers for Disease Control and Prevention's Environmental Public Health Tracking system (ephtracking.cdc.gov), finding local health data may be easier in the future. Nonetheless, health privacy laws and the geographic scale of data collection remain barriers to merging environmental and health data, particularly for smaller communities.