

Developing the UBN Framework

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Let's Change the
Conversation About Health



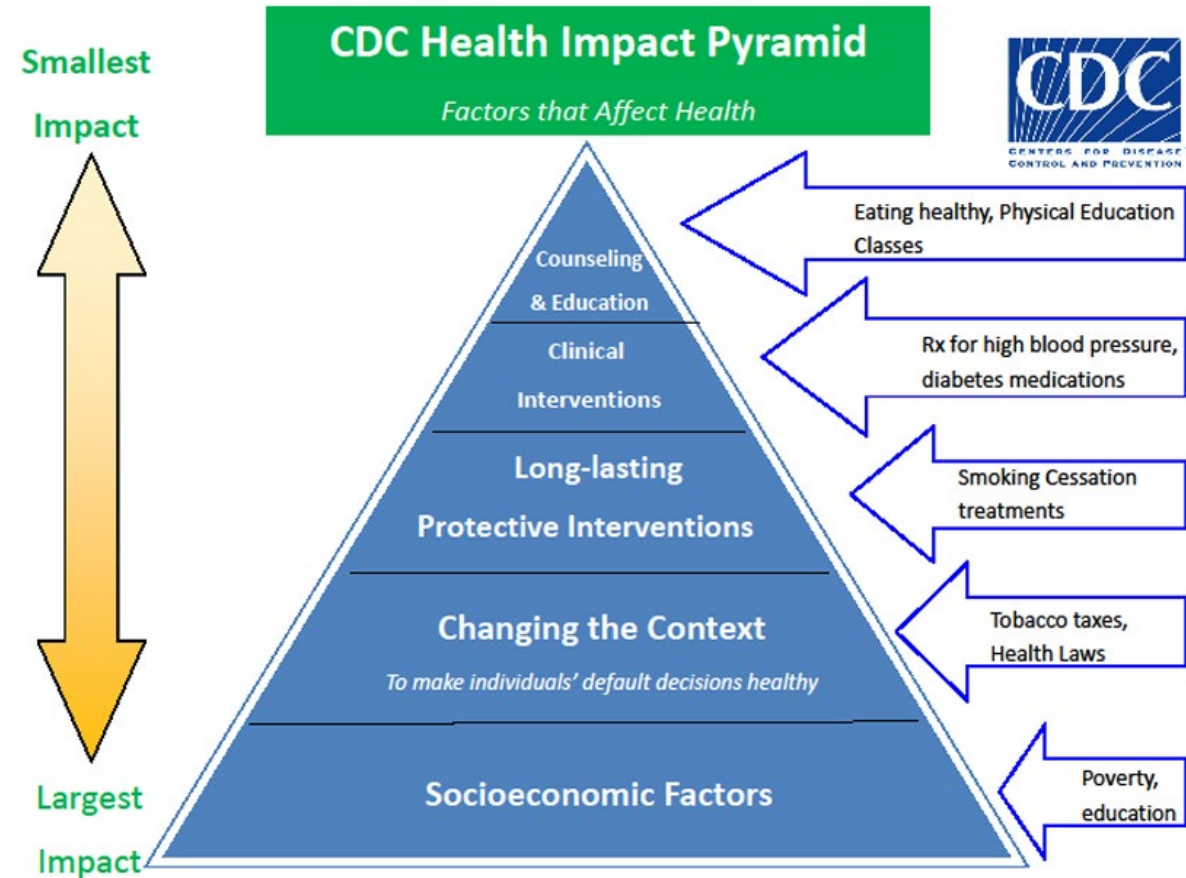
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Changing the Narrative: Positive Orientation

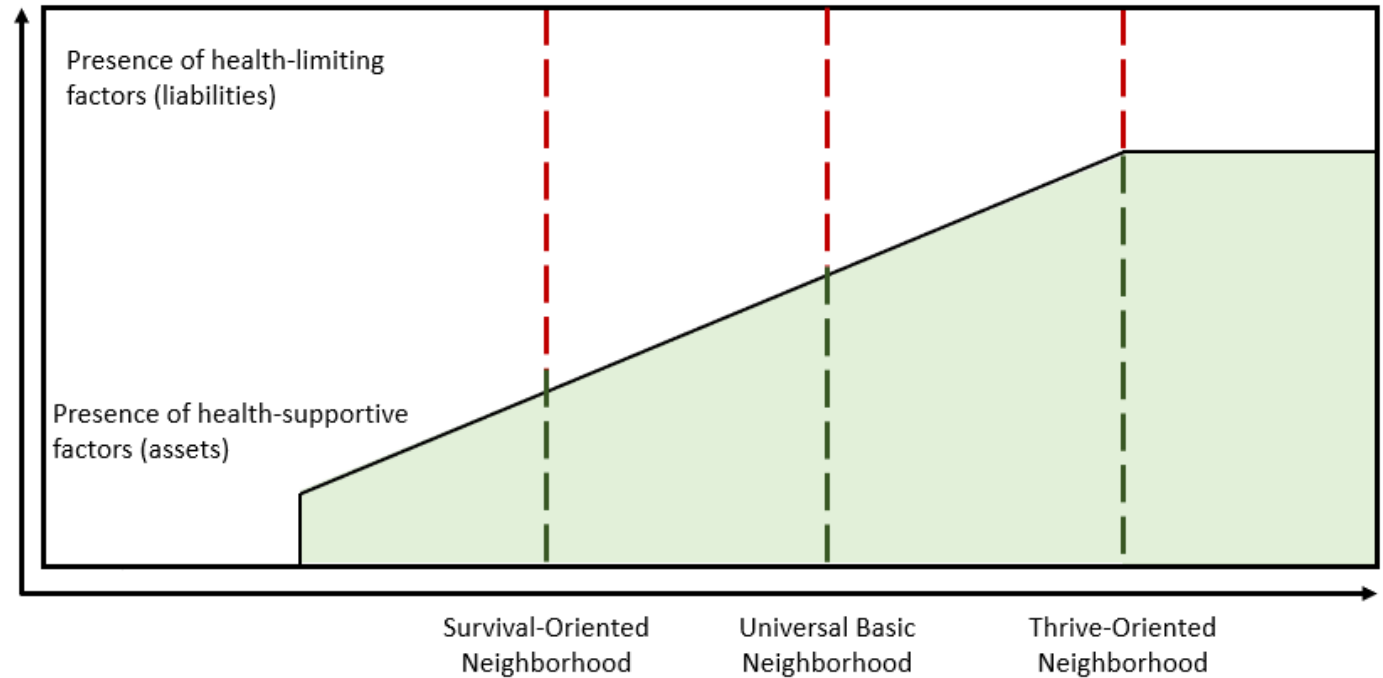
- Health is limited and shaped by residence location. Therefore, instead of diagnosing and treating individuals, we propose diagnosing and treating communities.
- A UBN is one that supports individuals and families by addressing the basic, human need to live in a place without toxic factors and with natural, social, and economic resources to support healthy growth and aging.



UBN Concept

Guiding Assumptions:

1. Environments can support or harm health.
2. Health decisions and behaviors are shaped by the environment.
3. Health outcomes are not solely based on genetics, individual choices, or behaviors.
4. Every neighborhood has assets and liabilities.
5. Community-scale intervention and investments are desirable over individual-scale.



UBN Domains, Assets, and Liabilities

Four domains organize the metrics used to assess how well neighborhoods support health (**area assets**) and identify areas for growth (**area liabilities**).

1. **Environmental Quality:** Clean air, water, and soil are essential for preventing exposure to harmful pollutants and reducing the risk of chronic conditions.
2. **Housing Quality:** Safe, affordable, and well-maintained housing protects residents from hazards and support mental health.
3. **Transportation System Quality:** Reliable and accessible transportation systems enable residents to reach employment, healthcare, education, and healthy food options, reducing barriers to maintaining a healthy lifestyle.
4. **Social Support Quality:** Strong social networks and community supports can reduce isolation and stress while the lack of these systems can limit mental and emotional resilience, leading to a cascade of negative impacts.

Factors, Metrics, Thresholds

- **Factors** (n = 11) Represent key neighborhood characteristics that influence health. They come from global literature on how to design healthy places.
- **Metrics** (n = 35) are ways to measure each factor. They come from administrative datasets and tools to ensure reliability and comparability.
- **Thresholds** provide a 3-point benchmark to determine the metrics meet, exceed, or fall below minimum standards for health. They come from policy, research, or Jefferson County averages.

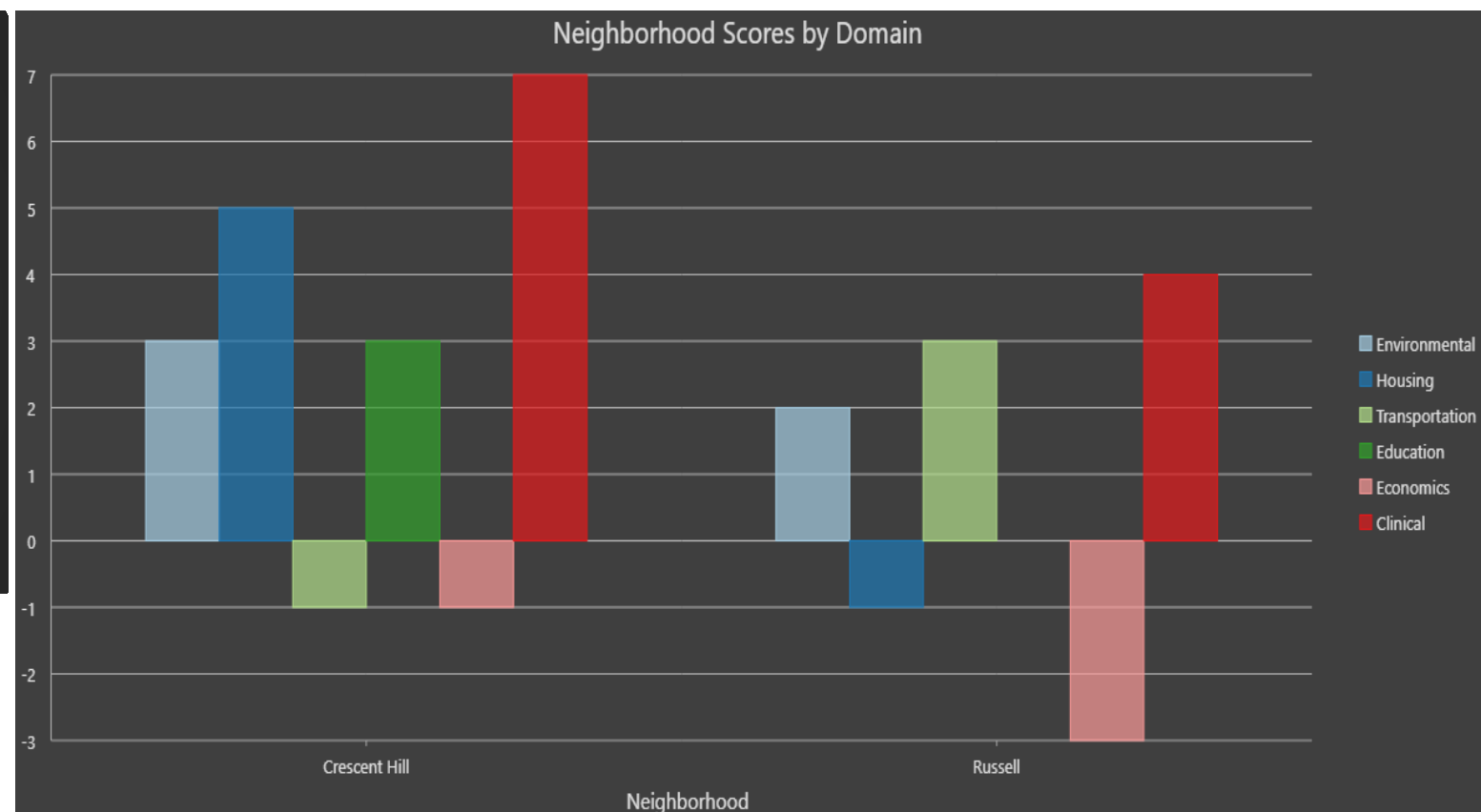
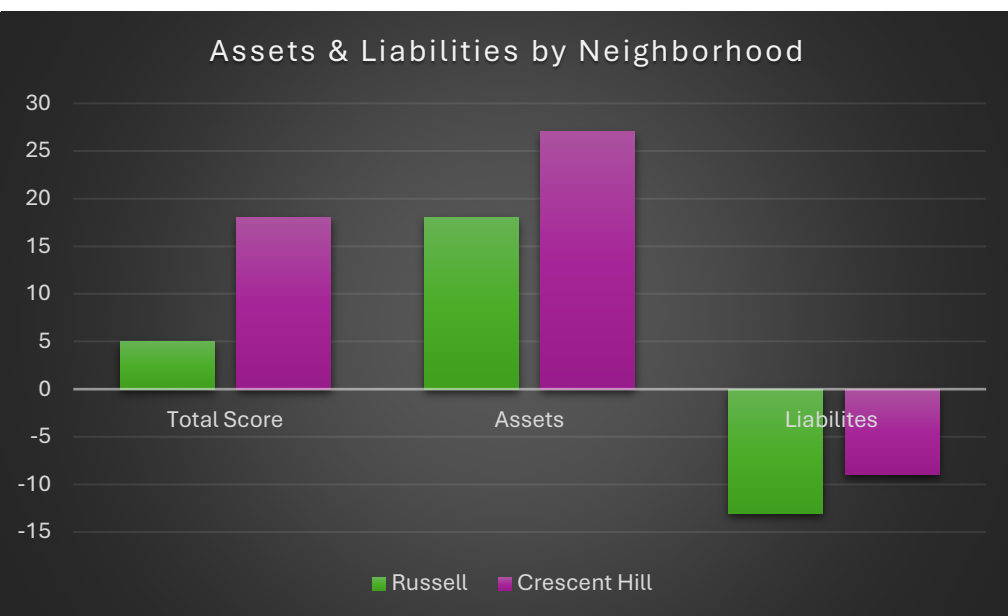
Example: Average 24-hour Exposure to Noise Pollution

- National administrative policy has stated that the 24-hour average noise level should be less than 55 decibels (dB).
- Excessive noise pollution contributes to stress, sleep disturbances, and increased risk for heart disease.

Scoring

- If the average noise level is **above 55 dB**, a score of **-1** is applied
- If the average noise level is **between 50 and 55 dB**, a score of **0** is applied
- If the average noise level is **below 50 dB**, a score of **+1** is applied

Accounting of Assets & Liabilities



UBN Framework in Action

Crescent Hill Evaluation & Policy Recommendations

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Environmental

Indicator	Metric	Threshold Description	Based on	County Average	CH Average	CH Score
Heat Effects	Average maximum warm season temperature	Average maximum temperature should be less than 88 degrees (F).	average	87.57	87.57	0
Noise Pollution	Average 24-hour exposure to noise pollution	Average 24-hour noise pollution should be less than 55dB	policy	53.84	52.83	1
Air Pollution	Average 24-hour particulate matter (PM2.5) concentration	Average 24-hour PM2.5 concentration should be less than 9 µg/m3	average	8.75	8.55	0
	Traffic Proximity Index	Average index score should be less than 930	average	930.95	557.03	1
	Toxic emission hazards	The “Whole Body Hazard Index Score” should be less than .0004	average	0.0004	0.0002	1
Pollution Sources	Point Sources	The area should have a maximum of one point pollution source	research	0.6	0.25	0
	Deteriorated (Lead) Paint Index	The Predicted Risk should be less than 1.5	research	1.54	1.39	1
Exposure to Nature	Tree canopy coverage	Tree canopy cover should be at least 20%	research	22.01	29.17	0
	Park Access	There should be at least one park in the area	average	0.53	0.75	1
	Park area per capita	The area should have an average of .5 acres of park area per capita	average	0.056	0.006	-1

Housing

Indicator	Metric	Threshold Description	Based on	County Average	CH Average	CH Score
Cost	Affordable Housing	Households should spend less than 30% of income on housing costs	policy	33.72	33.21	0
	Subsidized housing rate	At least 8% of housing in an area should be supported with subsidy programs	average	8.09	6.97	-1
	Public housing available	An area should have 10% of public housing stock available	average	10.94	3.57	-1
	Secure tenure	An area should have secure tenure, evidenced by around 7% of its residents residing in the area for 5 years or more	average	0.73	0.69	0
	Utility security	Less than 11% of households should experience utility insecurity	average	11.89	5.15	1
	Housing security	Less than 15% of households should face housing insecurity	average	15.01	6.57	1
Context	Grocery outlet access	There should be at least two grocery outlets in each area	average	2.25	2	0
	Food security	Less than 19% of area residents should be experiencing food insecurity		19.61	7.42	1
	Adequate childcare	There should be at least two childcare facilities in each area	average	2	1.5	0
	Access to internet	At least 91% of residents should have access to the internet		0.89	0.87	
	Commute time	The average commute should be less than 30 minutes	average	23.42	20.85	1
	Hospital access	There should be a hospital within a 20-minute public transportation trip of the area	average	1	2	1
	Area cleanliness	The area should have less than 50 complaints made to Metro 311 regarding area nuisances	average	59.68	25	1

Transportation & Social

Indicator	Metric	Threshold Description	Based on	County Average	CH Average	CH Score
Public Transportation	Accessible Public Transport Network	There should be at least 16 bus stops per area	average	16.77	22.25	0
Active Transportation	Alternative Transportation Usage	There should be at least 1% of commuters choosing public or active transport options	average	0.16	0.11	1
Vehicle availability	Vehicle availability	Most residents, more than 50%, should have access to private vehicles	average	0.10	0.05	1
Road Safety	Traffic Fatalities and Serious Injury	The area should average less than 25 serious traffic incidences annually	average	24.37	6.25	1

Indicator	Metric	Threshold Description	Based on	County Average	CH Average	CH Score
Community Assets	Social service centers	There should be at least one social service center available to the neighborhood	average	0.68	0.25	0
	Cultural ecosytem	There should be at least six cultural outlets in the area	average	6.64	8	0
	Voter Registration	Average voter registration rate should be more than 25%	average	0.27	0.55	1
Social Supports	Diversity Index	The areas diversity index score should be more than 45	research	0.44	0.25	-1
	Social connection	At least 30% of residents should feel like they have social connections	average	31.59	28.25	1
	Social Support	At least 20% of residents should feel like they have social support	average	22.44	16.42	1
Economic Equality	Gini Index	Average Gini Index scores should be less than 0.4	research	0.42	0.51	-1
	Low Poverty Index	Average Low Poverty Index score should be greater than 48.	research	48.03	68.25	1
Low Prevalance Crime	Low Prevalence of Crime	There should be fewer than 30 violent and hate crimes per 10,000 people annually	average	26.86	9.18	1

Crescent Hill Evaluation

- Crescent Hill meets thresholds for:
 - Environmental: noise pollution, traffic proximity, toxic emissions, deteriorated lead paint, park access,
 - Housing: utility security, food security, commute time, hospital access, area cleanliness
 - Transportation: alternative transportation use, vehicle availability, traffic injury
 - Social: voter registration, social connection and support, low poverty index, and safety
- Louisville should support Crescent Hill and help to create opportunities around:
 - Environmental: park area per capita
 - Housing: subsidized housing rate, public housing available
 - Social: diversity index, income inequality

Crescent Hill's Suggested Action Plan

Indicator	Goal	Potential Partners
Connection to Nature	Increase park area by half an acre per capita <ul style="list-style-type: none"> Convert vacant lots into community parks and recreational spaces. Advocate for city funding to acquire and develop green spaces. Partner with organizations like the Trust for Public Land to design and implement new parks. 	Trust for Public Land Louisville Metro Parks Local developers
Affordable Housing	Increase the number of properties that accept housing vouchers <ul style="list-style-type: none"> Educate property owners on the benefits and processes of accepting housing vouchers through workshops and outreach campaigns. Offer financial incentives (e.g., tax breaks or grants) to landlords who participate in housing voucher programs. Advocate for anti-discrimination policies that prevent landlords from refusing tenants based on voucher status. 	Louisville Metro Housing Authority U.S. Department of Housing and Urban Development (HUD) Local real estate associations and property owner organizations Fair Housing Action Center
Affordable Housing	Increase the number of public housing properties in the area <ul style="list-style-type: none"> Collaborate with city planners and housing authorities to identify land for new public housing developments. Secure funding for public housing construction through grants or public-private partnerships. Promote mixed-income housing developments that incorporate public housing units alongside market-rate units. 	Louisville Affordable Housing Trust Fund Habitat for Humanity Local urban planning agencies Community development corporations
Social Supports	Increase area racial and socioeconomic diversity <ul style="list-style-type: none"> Incentivize diverse housing developments, such as affordable and mixed-income units. Foster inclusive community events and programs to promote cross-cultural understanding and integration. Encourage policies that reduce barriers for diverse populations to move into the neighborhood, such as offering relocation assistance or down payment support. 	Local community organizations and cultural centers Civic groups advocating for equity and inclusion Fair Housing Action Center Local real estate developers
Economic Equality	Address income inequality in the area <ul style="list-style-type: none"> Develop workforce training programs to enhance employment opportunities for lower-income residents. Promote local business development with a focus on hiring underrepresented groups. Advocate for progressive tax structures or community investment funds that redirect resources toward equity-focused initiatives. 	Goodwill Industries Local economic development agencies Small Business Administration (SBA) Workforce development boards

Neighborhood Plan Assessment

- Neighborhood plans serve as guiding documents that outline a community's vision, priorities, and strategies for growth and development.
- For this assessment, neighborhood plans for Russell and Crescent Hill were evaluated to determine the extent to which they address key place-based factors.

The Russell Neighborhood Plan provides a clear blueprint for addressing historical inequities and fostering community resilience through strategic interventions. The plan seeks to improve **challenges**; housing insecurity, environmental deficits, and economic disparities and also recognizes the **strengths** that already exist; transit infrastructure, cultural vibrancy, and park access. However, **gaps** remain for environmental health, economic mobility, and social supports, which require greater investment and policy support to meet health-supportive thresholds.

The Clifton-Crescent Hill Neighborhood Plan highlights a strong commitment to livability, environmental sustainability, and community inclusivity while acknowledging areas that require further attention. The neighborhood **excels** in park access, alternative transportation, and economic stability, demonstrating a well-established foundation for health and resilience. However, affordability concerns, limited diversity, and environmental risks pose ongoing **challenges** that must be addressed through targeted policies and investments.

Neighborhood Plan Assessment Results

Metric	In CH Plan?	Score
Average maximum warm season temperature	no	neutral
Average 24-hour exposure to noise pollution	yes	positive
Average 24-hour PM2.5 concentration	no	neutral
Toxic emission hazards	no	positive
Traffic Proximity Index	no	positive
Deteriorated Lead Paint Index	yes	positive
Point Sources	no	neutral
Park access	yes	positive
Park area per capita	no	negative
Tree canopy coverage	yes	neutral

Metric	In CH Plan?	Score
Cultural Outlets per capita	yes	neutral
Social Service Centers	yes	neutral
Diversity Index	yes	negative
Social Connection	yes	positive
Social Support	no	positive
Low prevalence of crime	no	neutral
Gini Index	no	negative
Low Poverty Index	yes	positive
Voter Registration	yes	positive

3 Related Policy Recommendations

- Amend Louisville Metro Code of Ordinances Chapter 161 (Neighborhood Development Plans) to require currently optional sections related to health outcomes.
- Amend Louisville Metro Code of Ordinances Chapter 161 (Neighborhood Development Plans) to include Universal Basic Neighborhood (UBN) health factors.
- Update department policies to include Universal Basic Neighborhood (UBN) health factors in decisions.

Contact Us

We would love to hear from you!

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