

Program: Neighborhood Reimagined

Inputs	Activities	Outputs	Outcomes	Impacts
Funding dollars Contractors Policymakers Entrepreneurs Residents Raw materials	Planning Zoning Building Marketing Event Policymaking	Mix use spaces Greenspaces Home/Business ownership Community connections	Increased ownership; public health; Improved public health outcomes	Improved quality of life (long-term) Increased life expectancy

The program focuses on four key pillars: Social, Accessibility, Environment, and Economic. The activities of each pillar can be defined as:

- **Social:** Connection opportunities outside of private property; Community events held in varied times of the day.
- **Accessibility:** Wide sidewalks/bike lanes accessible from every home in the defined area to allow walking, running, biking etc.; Communal spaces and greenspaces for beauty, rest, and events.
- **Environment:** Establish a long term successional plan to prioritize native and naturalized plants; Ensure that there is access to proper sunlit community garden spaces.
- **Economic:** Use mixed zoning principles and grant-support to create opportunities for business ownership; Use equitable home value practices to promote ownership.

Each pillar is considered operational when at least one of the targets are in place, and fully operational when both are set. It took roughly one year for each pillar to hit the point of being operational, and three years for every pillar to be fully operational. The city is interested in knowing whether this program is having any effect on the quality of life of those in the area.

Evaluation Plan

Introduction

The evaluation is included as part of a municipal grant pilot policy program. A lead project manager will oversee the dynamic scheduling components of this evaluation, and context-specific analysts make up the evaluation team to support the proper insights being drawn. Scheduling for data collection will be carried out through time tabling to allow for adequate aggregation of responses. Progress will be shared with stakeholders throughout the evaluation.

Intended Audience of this Evaluation

The primary audience of this evaluation is the stakeholders and policymakers of the project “Neighborhood Reimagined”. Secondary is the internal implementers of the program both in government and out. Tertiary is made up of external researchers and policymakers interested in a similar program. Findings will be shared with primary prior to publication. All communication will be delivered in context of the intended audience.

Required Resources

Pilot programs require relatively robust evaluations to determine the initial impacts therefore the financial costs will be large. The budget has been determined prior to the initial implementation of the program.

Governance Structures

Quality assurance steps have been established to ensure the evaluation’s processes align with the actions of the program. All implementers’ contact have been collected at onset. Project manager is responsible for keeping updated logs of issues and changes. Findings are reviewed, agreed upon, and verified by a steering committee

of analysts for validity before dissemination.

Evaluation Approach

Using a combined approach including process and impact related evaluations. A control neighborhood is selected as a counterfactual to assist isolating effects of the program on the treatment neighborhood. Use of neighborhood and residents is defined as reference to both treatment and control locations. The Hyland and Sodergren's Global Quality of Life scale (QoLS) is used to promote reliability across studies. Design is for translation of the program into SMART metrics.

Impact Evaluation (Question; Data source) *Data Collection begins when pillars are fully operational.*

- **KEY Question:** Is the Quality of Life (QoL) enhanced for residents in the program's neighborhood?; *Data source is surveys with residents through QoLS utilizing a DID technique with a PSM.*
- What provided the greatest impact to resident's quality of life?; *Data sources are multi-select questions on surveys with residents.*
- Were any changes observed due to the program's implementation?; *Data source is an analysis of changes against baseline found in city records and similar neighborhood's use of the QoLS.*
- Did changes occur that were not originally intended, and if they did occur, what was their impact?; *Data source is narrative and scale questions on surveys with residents, project managers, and implementers*

Process Evaluation (Question; Data source) *Data Collection ongoing with the program*

- Were there any changes to how the program was planned to be implemented?;

Data source is the program's project managers and team leads.

- How did the current culture and natural progression of the neighborhood impact the program's implementation?; *Conglomerate of longitudinal demographic, socioeconomic data, and open-ended surveys with implementers measured alongside program's implementation log.*
- How many of the lots in the area were unable to be included due to a) previous ownership by either rental or large company b) time constraint c) resource constraint d) policy delay?; *a) city tax records, b) project schedule c) project finances, city finances, and project work breakdown structure, d) zoning/land use records and economic incentive breaks on sustainable technology use.*
- Of the targets of the program which do you consider important to quality of life on: a) on a daily basis b) when making large decisions and c) don't matter to you?; *Surveys with neighborhood residents.*

Economic Evaluation (Question; Data source) *Data collection occurs in review.*

- Was the "numerical unit" of quality of life change worth the amount invested?; *Analysis of the total money spent on the program compared to QoLS DID.*

Data Requirements

Reference the Evaluation Approach section for most specifics needed for data collection. Additional definitions are noted here:

- Participants: Residents having lived in their neighborhood for one year or more
- Data Security: Results of the surveys will be stored for future reference. Informed consent and non-disclosures have been collected from each respondent. The standards are set by an Institutional Review Board.

Analytical Techniques

Difference-in-Difference (DID) DID is a statistical technique that estimates the causal effect of an intervention by comparing the changes in outcomes over time between a treatment group and a control group. This method is particularly useful for evaluating the impact of policy changes or interventions when random assignment is not feasible.

Application of DID

1. **Baseline and Follow-up Data:** Data will be collected at multiple time points—before the intervention (baseline) and at several intervals after the intervention (follow-up).
2. **Selection of Treatment and Control Groups:** Neighborhoods will be selected based on similarity in key characteristics to ensure comparability. The criteria will include demographics, socio-economic status, and baseline outcome levels.
3. **Outcome Measures:** Key outcome variables, such as economic activity (measured by local business revenues), crime rates, and health indicators (e.g., hospital visits, reported health issues), will be tracked over time.
4. **Assumptions and Robustness Checks:** The DID analysis assumes parallel trends in the absence of the intervention. Pre-treatment trends will be analyzed to verify this assumption. Additionally, robustness checks, such as placebo tests and sensitivity analyses, will be conducted to validate the results.

Propensity Score Matching (PSM) PSM is a statistical method used to reduce selection bias by matching treated units with control units that have similar characteristics. This method ensures that the comparison between the treatment and

control groups is based on equivalent groups, thereby improving the validity of the findings.

Application of PSM

1. **Select Covariates:** Covariates relevant for matching, such as age, income, education level, and baseline health status, will be identified and used for matching.
2. **Estimate Propensity Scores:** A logistic regression model will be employed to estimate the propensity scores, representing the probability of a neighborhood receiving the intervention based on observed covariates.
3. **Match Units:** Treatment units will be matched to control units using methods such as nearest neighbor matching or caliper matching. This will create pairs of neighborhoods with similar characteristics.
4. **Balance Diagnostics:** Post-matching balance of covariates between the treatment and control groups will be assessed using standardized mean differences and other balance metrics. Adjustments will be made if necessary to achieve balance.
5. **Impact Estimation:** The matched sample will be used to estimate the impact of the intervention on the outcome variables, with DID analysis applied to the matched sample for enhanced robustness.

Implementation Issues

Public policy interventions tend to naturally be constructed in ways which conflict with good impact evaluation. In this evaluation every attempt was made to minimize the

confounding factors, though the complex nature of the program creates a dynamic that makes it difficult to easily evaluate for a clear impact. Heterogenous treatments and effects are expected as part of this program.

Truth be told, the impact only had two years to be evaluated whereas this program evaluation would be best served over a longer period of time in both a scheduling and effect view. The program's focus is to improve life quality, which the evaluation focuses on in its key question. The majority of the effort is then to give context to that summative metric as QoL. The expansive evaluation approach is necessary because this is a pilot program which needed to collect baseline data that could assist in appraisal. To obtain the data on-time, a tight schedule with minimal float must be used for all evaluation processes which creates opportunity for many issues.

There is a weighted reliance on public records. Particular sets may be difficult to obtain on a tight turnaround as well as if proper clearance is needed to view. Granted this should be established as it is a public program evaluation. This is both a scheduling and data security risk.

In addition to the Hawthorne effect, enough residents need to be willing to participate, especially in the comparison group, to establish statistical sampling power. Champions in the neighborhoods would be helpful. Randomness can not be guaranteed in residents due to the relational nature of communities, which is why extensive analytical techniques were needed to provide clear and confident findings.

Strengths

The evaluation approach is a necessary part of this plan as it explores the important parts of the program that need to be evaluated in order for policymakers to

make an informed decision on renewal or expansion of this pilot. This strength is accomplished by the incorporation of all three process, impact, and economic evaluations.

As part of the approach, data collection is carried out in both a qualitative and quantitative fashion. The use of both public records and narrative responses allows the evaluation to offer insight into the gray areas of the program whereas the QoL metric allows the impact to be understood quickly. Paired alongside one another, policymakers and expanded audiences are able to assess the program in its complex nature.

It is common for pilot programs to plan a large evaluation planned as part of implementation from the beginning. Knowing this, the evaluation was able to schedule throughout. The use of a project manager overseeing the schedule, budget, and tasks of the evaluation set it up for success.

The use of advanced analytical techniques such as difference-in-difference and propensity score matching indicate that the evaluators understood the non-randomness in the program. The program wasn't able to be studied through a randomized control trial, so the use of these techniques provide added confidence in the robustness of the results. Incorporating a steering committee to verify the results added an additional measure of certainty as well.

Weaknesses

The same level of review was not upheld for both the treated and comparison neighborhood residents. Control residents were interviewed, but the neighborhood's public records were not examined as part of the evaluation. This is a missed opportunity to compare the more quantitative aspects of the program to the counterfactual.

. As a pilot program, the process evaluation could have been given more emphasis. There is already extensive data available indicating that community spaces, regular exercise, and economic stability promote positive public health outcomes. The key question of the evaluation focusing on QoL is a missed opportunity, as a more valuable question is process oriented on how does a pilot program focusing on QoL establish itself quickly. QoL being the idealized impact, the evaluation in the short-term should also focus on the logic model outcomes as much as the long-term impact.

Also, robustness could have been obtained with only QoLS and public records. A cost-benefit analysis was not done, which would have provided valuable information into the allocation of resources to tasks. That said, the substantial use of descriptive surveys with residents is a possible misuse of resources and time, considering not even a retrospective pre-post with comparison was used. A streamlined evaluation could have given ample information for policymakers to make an informed decision.

There is no statement on whether researchers part of the evaluation are independent and objective. To add to this concern, efforts were not indicated that bias and cultural sensitivity were included as part of the survey creation process. Questions arise about whether the survey instruments are edited or pretested to pair with the resident audience. Surveying is challenging. A steering committee verifies the findings, and there is an opportunity that the data they review is invalid due to these missteps.