Rochester, USA
Smarter Cities Challenge report

IBM

Contents

1. Executive summary

Introduction

The City of Rochester, New York, USA, was one of 16 cities selected to receive a Smarter Cities Challenge® grant from IBM in 2015 as part of IBM's citizenship efforts to build a Smarter Planet®. During three weeks in October 2015, a team of five IBM experts worked to deliver recommendations on a key challenge identified by Mayor Lovely Warren and her senior leadership team:

Design a unified, efficient strategy to establish a "stairway" out of poverty for families currently receiving assistance from several agencies, reviewing key areas that include employment, education, housing and safe neighborhoods.

The challenge

"…if we are going to have peace in Rochester, we must have justice… and the scales of justice must balance. We must do that by eliminating the greatest injustice of all — poverty."

— Mayor Warren

Rochester has a system in place to combat poverty, but, for a variety of reasons, that system is not working effectively.

The Rochester Monroe Anti-Poverty Initiative (RMAPI) is an unprecedented community-wide effort to reduce the levels of poverty within Rochester by 50% over the next 15 years. For a variety of reasons, this program is not working as effectively as it could.

Rochester currently has the highest rate of child poverty (50.1%), the highest rate of extreme poverty and the second-highest rate of poverty overall in the nation. In the area known as "the Crescent," more than 60% of the residents live in poverty.[1]

Poverty affects health, behavioral development and educational outcomes for children.[2] Poverty's impact in Rochester is clear. Only 5% of students pass the state's Common Core reading and math assessments.[3] Rochester's violent crime rates, meanwhile, are more than double the national median, with data showing one in every 100 citizens is likely to be a victim of violent crime every year.[4] Put simply, the poverty within Rochester will impact the long-term health, life, safety and development of the city's children and the broader community.

In a city with such significant resources, it is important to determine why so many people are living in poverty — and find solutions to this problem. Through the Smarter Cities Challenge, the City of Rochester will receive a range of recommendations to help the City improve the lives of those in need.

Findings and recommendations

Findings

Through a series of discussions with key stakeholders, the IBM Smarter Cities Challenge team identified more than 17 key findings that were consolidated into five major categories. The team grouped the findings to provide a clear focus on specific issues and activities that are impeding the mission of the RMAPI. With the rise in poverty and its expansion to areas in the city and suburbs of Rochester not previously impacted, this is a priority for the entire community. Addressing the findings included in this report will be critical to enabling Rochester and Monroe County to realize the vision of reducing poverty by 50% over the next 15 years.

Category 1: Misalignment of agency services

Poverty awareness across City, county and state organizations has generated genuine efforts to fund programs that address related issues. The result, however, is a community that is "program rich but results poor." Fragmentation of services, such as lack of social services coordination and inconsistent eligibility determination rules, prevents families from receiving the comprehensive set of services they need to leave poverty behind for the long term. Physical separation of agencies and organizations, along with a lack of common systems or tools, contribute significantly to this fragmentation. Finally, there is a lack of follow-through to ensure that services have been provided and outcomes achieved. It is not uncommon for people to get lost in the system.

Category 2: Reactive with no focus on proactive and preventive actions

While the programs and services have succeeded in assisting those they are intended to serve[5], there is no material decrease in poverty being recorded. This could be caused by the reactive approach to addressing poverty, a pattern that has continued for decades. Consequently, the City's focus and interventions are currently designed to address those who are already designated as poor in the current reporting cycle, rather than also seeking to identify those whose circumstances indicate a high likelihood of future poverty.

Category 3: Lack of person-centric delivery and measurement system

Programs that provide services to those in need tend to operate in a mode of self-sustainment. Typically, the success of individual programs is measured independently of other influencing factors that may contribute to the experience of poverty. The funding process exacerbates this issue in a number of different ways. Providers understandably want to avoid defunding or, in certain cases, repayment of expended funds. As a result, providers focus on complying with funders' goals and measures to continue receiving funding.

The process for fund allocation is competitive, requiring service providers to demonstrate the value of their programs. The measurement and reporting process that is used to assess the value of the program, however, focuses on service activities and not outcomes. Person-centered outcomes are not measured and monitored because they may not align with those of the program, are too difficult to report or are not considered to be important. The resulting services are therefore delivered at a single point in time rather than over a period of time.

Category 4: Unrealized potential within the community

The IBM team consistently heard that communities and neighborhoods need to play a more significant role in helping children and their families succeed. Many models exist to help with neighborhood integration, bringing together different demographic groups (social and economic), and have evolved over time to address various issues.

Despite this, there is no specific strategy detailing how to harness the combined power of residents, businesses and service providers that compose neighborhoods. Such a strategy would encourage the broader population to play a more active role in creating a community that improves the sense of security and self-esteem for those experiencing poverty. The IBM team spoke with students in P-TECH[6], who confirmed this need for community involvement. The students' insights and ideas were an inspiration to the team and are reflected in the recommendations provided in this report.

Category 5: Inconsistent approach to data

Data sharing across government, education, nongovernmental organizations (NGOs) and nonprofit organizations is essential in helping reduce poverty. Currently, barriers to data sharing include inconsistent interpretations of FERPA and HIPAA privacy standards, mistrust of how shared data will be used and protected, and competition between agencies that draw from the same limited funding sources. For the most part, data is not yet treated as the rich resource it can be. Data should help drive the City's decisions and actions, influence the City's overall strategic thinking and be managed under an approved governance structure.

Recommendations

Poverty presents a complex ecosystem, so the team recommends a holistic approach when implementing the roadmap. Multiple, concurrent interventions will be required to help individuals achieve self-sufficiency.

To support adoption of the roadmap and the execution of each initiative, the City should use a change management framework to track progress, celebrate success and build sustained momentum for a long-term commitment to reducing poverty.

Focus on the individual in need

- Providers should shape their service delivery processes around the individual in need, using the individual to guide program funding models, technology solutions and policies, thereby becoming person-centric.
- Systems that measure the impact of programs on individuals will help providers improve their resource prioritization.

Leverage the community

- Engaging the community as a holistic entity will help the City make the most of its existing solutions, such as neighborhood hubs, which should be augmented by a more strategic approach that expands the reach of services offered.
- The City should adopt a range of comprehensive social and commercial initiatives that engage community members who are not directly impacted by poverty. This will help reduce behavioral inhibitors fueled by structural bias, such as the stigma associated with poverty or judgment that may come from people who have never experienced poverty.

Engender and drive collaboration

- Agencies providing services must collaborate to gain a 360-degree view of impoverished families as a unit. This will help providers develop a single view of the person, assisting them in making appropriate referrals, tracking a family's progress and increasing personal connections with families and individuals seeking help from different services.
- Common objectives, systems and processes among agencies will empower them to support individuals navigating the system.
- An incentives program could help the City encourage participation and drive sustainable cultural transformation.
- Funders present a unique opportunity to drive transformation of program delivery and the cultural change required to effect systemic improvement.

Position for prevention

Initiatives and solutions must continue to address current poverty issues while also undertaking preventive strategies to check poverty before it starts.

Enablement and accountability through data and metrics

- The City should develop a data strategy and program governance framework to underpin all facets of the poverty ecosystem, such as eligibility entitlements, support programs specific to individual needs and training options to suit skills and employment opportunities.
- Funders and providers should employ outcome-based metrics to measure the impact of initiatives and drive accountability.

Conclusion

Current programs that exist within the RMAPI have addressed some of the circumstances that create poverty — but more work must be done if sustainable change is to be achieved. The City of Rochester must recognize that the complexity of poverty requires multiple and concurrent interventions. The City will need to make fundamental changes to how programs are established and measured, how participants engage with providers and how accountability is managed. The City also needs to use the valuable resources it already has, such as data and the power of the community, to begin the transformation and improvement it seeks.

Highlights

- Realize the potential of communities/neighborhoods
- Leverage data for greater insight
- Coordinate services to optimize outcomes
- Measure and manage programs and resources for results and accountability
- Introduce preventive strategies to check poverty before it starts

2. Introduction

A. The Smarter Cities Challenge

By 2050, cities will be home to more than two-thirds of the world's population. They already wield more economic power and have access to more advanced technological capabilities than ever before. Simultaneously, cities are struggling with a wide range of challenges and threats to sustainability in their core support and governance systems, including transportation, water, energy, communications, healthcare and social services.

Meanwhile, trillions of digital devices, connected through the Internet, are producing a vast ocean of data. All of this information — from the flow of markets to the pulse of societies — can be turned into knowledge because we now have the computational power and advanced analytics to make sense of it. With this knowledge, cities could reduce costs, cut waste and improve efficiency, productivity and quality of life for their citizens. In the face of the mammoth challenges of economic crisis and increased demand for services, ample opportunities still exist for the development of innovative solutions.

In November 2008, IBM initiated a discussion on how the planet is becoming "smarter." By this it meant that intelligence is becoming infused into the systems and processes that make the world work — into things no one would recognize as computers: cars, appliances, roadways, power grids, clothes and even natural systems, such as agriculture and waterways. By creating more instrumented, interconnected and intelligent systems, citizens and policymakers can harvest new trends and insights from data, providing the basis for more-informed decisions.

A Smarter City uses technology to transform its core systems and optimize finite resources. Because cities grapple on a daily basis with the interaction of water, transportation, energy, public safety and many other systems, IBM is committed to a vision of Smarter Cities® as a vital component of building a Smarter Planet. At the highest levels of maturity, a Smarter City is a knowledge-based system that provides real-time insights to stakeholders and enables decision makers to manage the city's subsystems proactively. Effective information management is at the heart of this capability, and integration and analytics are the key enablers.

Intelligence is being infused into the way the world works.

The IBM Smarter Cities Challenge contributes the skills and expertise of top IBM talent to address the critical challenges facing cities around the world. We do this by putting teams on the ground for three weeks to work closely with local leaders and deliver recommendations on how to make the city smarter and more effective. More than 130 cities have been selected to receive grants since 2010. The Smarter Cities Challenge is the company's largest philanthropic initiative, with contributions valued at more than $60 million to date.

The City of Rochester was selected through a competitive process as one of 16 cities to be awarded a Smarter Cities Challenge grant in 2015.

During a three-week period in October of 2015, a team of five IBM experts worked in Rochester to deliver recommendations around key issues for Mayor Lovely Warren.
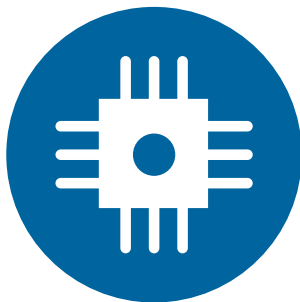
Instrumented
We can measure, sense and see the condition of practically everything.

Interconnected
People, systems and objects can communicate and interact with one another in entirely new ways.

Intelligent
We can analyze and derive insight from large and diverse sources of information to predict and respond better to change.

Figure 1: Instrumented, interconnected, intelligent

B. The challenge

The RMAPI is an unprecedented community-wide effort to reduce the levels of poverty within Rochester by 50% over the next 15 years. This is a challenging task as currently Rochester has the highest rate of child poverty (50.1%), the highest rate of extreme poverty and the second-highest rate of poverty overall in the nation. In the area known as "the Crescent," more than 60% of the residents live in poverty.

Poverty affects health, behavioral development and educational outcomes for children. Poverty's impact in Rochester is clear. Only 5% of students pass the state's Common Core reading and math assessments. Rochester's violent crime rates, meanwhile, are more than double the national median, with data showing one in every 100 citizens is likely to be a victim of violent crime every year. Put simply, the poverty within Rochester will impact the long-term health, life, safety and development of the city's children and the broader community.

Rochester established the RMAPI to combat poverty, but the systemic nature of poverty requires additional interventions. Through the Smarter Cities Challenge, the City of Rochester will receive a range of recommendations to help address the following key challenge:

Design a unified, efficient strategy to establish a "stairway" out of poverty for families currently receiving assistance from several agencies, reviewing key areas that include employment, education, housing and safe neighborhoods.

3. Context, findings, overview and roadmap

A. Context and findings

The Smarter Cities Challenge team has consolidated its findings and insights into the following five categories:

Category 1: Misalignment of agency services

The opportunity inherent in this challenge is to bring people, process, technology and data together in a cohesive manner to provide comprehensive services to children and families in need. In its current state, the City of Rochester and Monroe County provide many programs and services funded through both government organizations and NGOs. These services focus on key influencers of poverty or poverty prevention, such as employment, education, housing and safe neighborhoods.

1.1. Process challenges

While many of the City's programs have demonstrated positive results and instances of collaboration, service delivery appears to be largely fragmented. Service coordination, knowledge sharing and collaboration are happening through informal networks and with limited information. This presents the following challenges:

- There is no way for a provider to access a 360-degree view of the person in need. This view would include an individual's history and profile information necessary for providers to deliver tailored assistance.

- Providers lack access to the information they need to review and assess the diverse programs available and recommend the most appropriate options to those seeking services.

- The program-based approach (discussed further in Category 3) does not allow providers to act as coordinated points of contact for the people they serve. This approach impedes the development of a relationship of trust and substance developing between providers and individuals in need.

1.2 Tools and technology

Service providers are further hamstrung in their service delivery efforts because they continue to depend on paper and manual processes. There is no shared repository for collating individual and program information. Funding does not readily cover the necessary infrastructure (computers, applications, networks and so on) required to streamline efficient case management.

Without this infrastructure, service providers cannot consistently assess or determine the eligibility of individuals who come to them for help. Providers also cannot effectively and securely share data across the RMAPI ecosystem. In summary, there is no comprehensive system today to achieve the RMAPI vision.

1.3 Eligibility

A challenging regulatory environment with inconsistent determination rules makes it even more challenging for providers to coordinate services. With numerous government entities and NGOs using diverse baselines for what constitutes program candidacy, persons in need are frequently placed on eligibility cliffs.

The gap between the federal poverty level and the actual level of self-sufficiency required for an individual to no longer need public assistance is significant. The result of this disparity is a continued struggle for children and families trying to improve their situation, as they are unable to access the chain of services they need to reach self-sustainment.

Category 2: Reactive with no focus on proactive and preventive actions

The City's current system of social services includes a large number of providers delivering effective services for those in need in Rochester. These services, however, take a reactive approach to issues of poverty rather than a more comprehensive approach that addresses issues that may cause individuals to enter poverty.

According to James Henslin[7], 59% of those in poverty are in that position for less than one year. Within three years, 84% are no longer in poverty. A 2008 Census Bureau study confirmed that poverty is a dynamic process. Over a three-year period between 2001 and 2003, more than 30% of individuals spent two or more months in poverty, yet only 2.4% of people remained under the poverty line for the entire 36-month period.[8]

Despite the resources and focus on those experiencing poverty in Rochester, there has been no real improvement in the city's poverty statistics. The overall poverty rate, the childhood poverty rate and extreme poverty rate have all increased year over year. While the effectiveness and efficiency of these programs may need to be taken into consideration, the demand for assistance on a day-to-day basis has effectively resulted in service providers focusing all of their efforts on serving those in poverty at that point in time. The programs essentially help people out of poverty as quickly as others enter it.

As discussed in Category 1, the City's providers are limited in their ability to collaborate and share information across the current environment. They are unwilling, feel unable or have no capacity to gather comprehensive data in order to proactively identify those at risk of being "tomorrow's poor."

Federal poverty line

Median household income

In three years, 96.5% move above poverty, but 30% fall right back under (2011 Census Bureau study). 50% fall back within five years.

$20,000 $38,040 $61,720 $100,065   **Household income (quintiles)**

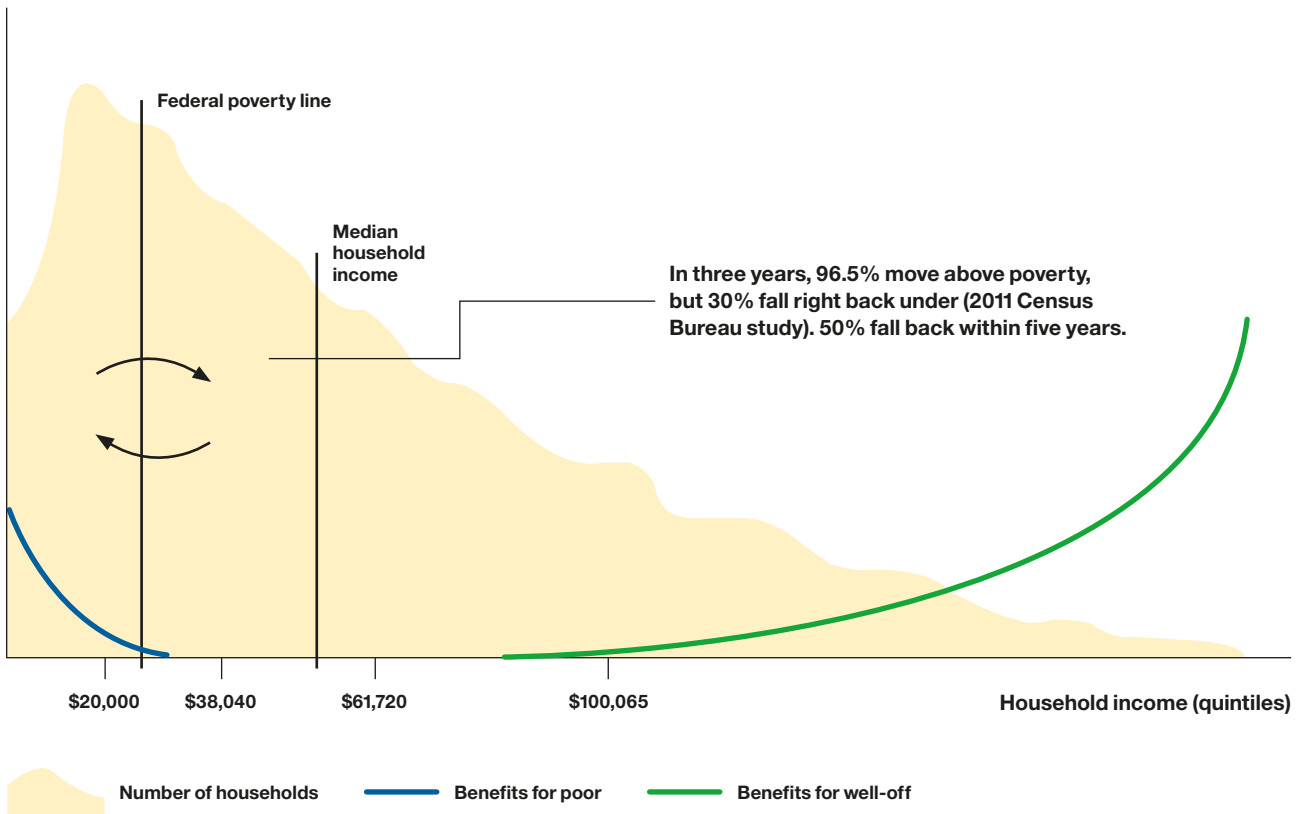**Number of households**   **Benefits for poor**   **Benefits for well-off**

Figure 2: Stuck in the dynamic cycle of poverty[9]

Category 3: Lack of person-centric delivery and measurement system

3.1 Program delivery

Earlier findings (Categories 1 and 2) note the abundance of good programs that are currently available in Rochester. Program structures, however, seem to place priority on an organization's processes or on the program itself, rather than on the person the organization serves. This often inhibits service delivery and does not align with the organization's mission.

External pressures, like regulatory and institutionalized requirements, tend to cause this misplacement of priorities. Organizations operate within a regulatory environment composed of requirements and conditions established by funders, which help determine fund allocation to different programs. As organizations have little or no flexibility to interpret the rules in favor of a person in need, they are invariably in a position in which they cannot provide the assistance necessary without risking a process breach.

Similarly, the funding process has institutionalized approaches that result in a large number of organizations focusing on self-sustainment. An individual's needs may be met, but in many cases, the service and support available to that individual cannot be optimized. Although the lack of a 360-degree view discussed in Category 1 is a key contributor to this problem, the influence of the funding model cannot be overstated.

The competitive process to secure funding (usually via a request for proposal (RFP)) and the conditional requirements linked to funding cause organizations to focus much of their energy on self-sustainment. This is understandable given that organizations cannot assist those in need if they are not able to operate, but the funding process tends to create an imbalance between how much an organization focuses on its sustainment compared to helping individuals in need.

3.2 Performance measurement

The systems in place to measure organizational performance also present challenges. Organizations tend to measure their processes rather than the outcomes of their specific programs. For example, an organization may track the completion of a job training program rather than if the individual went on to secure employment. When programs measure their processes discretely, they get a data input for a point in time instead of measuring long-term impact.

Some organizations do measure the value their programs achieve, but these organizations are in the minority. Rochester Educational Opportunity Center (REOC), for instance, measures job attainment after graduation. Very few organizations are able to demonstrate the impact of their programs, and, as a result, the question of what benefits are being derived is left largely unanswered.

This is a key reason why programs are considered to be "outcome poor." If a program is not assessed on whether it actually benefits the person who received the service, how is it possible to critically evaluate its effectiveness or the outcome it achieves?

For funders, this poses a significant challenge. Finite funds must be allocated to meet unlimited needs. With no real way to assess which programs are achieving the most positive outcomes, funding decisions must rely on activity-based data, and decision makers have no way of knowing if they are allocating resources to the best programs. Similarly, because the impact of the programs is not always visible, there can be no strategy for expanding certain programs that may contribute to the prevention of poverty.

Category 4: Unrealized potential within the community

The team heard clearly that communities and neighborhoods play a significant role in helping children and their families succeed. As an influencing factor, they can either reinforce or undo what families gain from programs like extended school hours and summer learning.

People rely on their neighborhoods and community to provide localized access to services in a coordinated manner, as well as better housing and a safer living environment. For its communities to provide this supportive role, there are a few challenges the City must overcome.

It is not only program availability that the City should critically review but also accessibility of those programs. Persons in need may be caught in a cycle of failure, perpetuating issues of low self-esteem and trauma. This decreases the likelihood of the individual actively seeking assistance. If services are spread across a large geographic area, it makes it even more challenging for a person who needs those services to access them, creating a further hurdle for those who are already disinclined to seek help.

Those in poverty are also prone to relocating. High-level calculations of housing affordability in marginalized areas, such as the Crescent, provide tremendous insight into why relocation regularly occurs. Anecdotally, frequent moves are partly due to renters who fall behind in payments, resulting in eviction. The financial returns of the properties are attractive to landlords but create financial burden for their tenants. The condition of the properties, coupled with the high cost of rent, effectively creates a situation that discourages permanency and precipitates the issues the RMAPI has identified as resulting from a poor home environment.

The Rochester community has indicated a willingness to participate and support the economic, social and educational imperatives necessary to shift perceptions of poverty and those in need. While efforts have been well intended, outcomes have been negligible, predominantly due to a lack of a clear strategy. The community will need to invest its time and resources into initiatives that may not yield any demonstrable outcomes immediately, but it must remain committed to these efforts for the long term.

Category 5: Inconsistent approach to data

While providers gather, store and use data relating to the individuals they help, this data typically is not gathered or applied intentionally across providers to realize collective impact. This gap is problematic as the data being recorded can be extremely powerful. The Rochester school system's comprehensive view of students is a clear example of the power that data-driven insights can create. With information including attendance, food, transportation and grade performance, schools can start identifying trends in student behavior by observing what programs are working and start conversations on declining performance early.

Furthermore, as noted in Category 1, the lack of an integrated tool to store data causes an overlap and duplication of data. Multiple service providers could serve a family concurrently, but they lack a holistic view of the family, resulting in isolated and disjointed interventions across multiple touch points. The high level of transiency perpetuates the challenge, as there is no easy way to track the changes happening dynamically within a family. Providers are unable to have a single view as to the timing, duration and status of services provided to a family.

While all providers collect data on the individuals and families they serve, most are unwilling, or feel unable, to share the information they collect. There is a consistent lack of understanding and misinformation surrounding what can be shared and what should not. In discussions, providers referred to FERPA and HIPAA as a constraint for data sharing, but on further questioning, it became apparent that a lack of trust was the primary driver behind not sharing data.

While it was generally acknowledged that sharing data would be beneficial, providers were unclear as to what data was being collected and how to implement a data-sharing protocol. Still, there were some providers sharing data successfully, even though it was limited and contained within providers funded by the same organization.

B. Overview of recommendations

The IBM team has identified a range of initiatives and actions that the City of Rochester should undertake to reduce and prevent poverty. The initiatives and actions that comprise these recommendations are instrumental in realizing the systemic improvements needed to create a stairway out of poverty and an environment that promotes and fosters self-sufficiency (see Appendix C).

The recommendations have been segmented into three key sections (coordinate services, leverage data and elevate community) and work together to help the City build a systemic response to poverty across Rochester (see Figure 3). The goal is to help the City provide a caring and nurturing environment with just and fair inclusion, creating a society in which all can participate, prosper and reach their full potential.

Single view of the person

At the center of the recommendations is the need to focus on the individual rather than the programs. Service providers need a single, 360-degree view of the individual so they are able to understand each person's needs, history and the specific circumstances that will influence the success of potential interventions prescribed.

Outcome-based metrics

Agreeing on consistent, outcome-based metrics will help providers understand the impact of programs on the individual. Service providers will be able to assess programs most suitable for the person in need based on a data-informed understanding of the benefit that the individual is likely to experience.
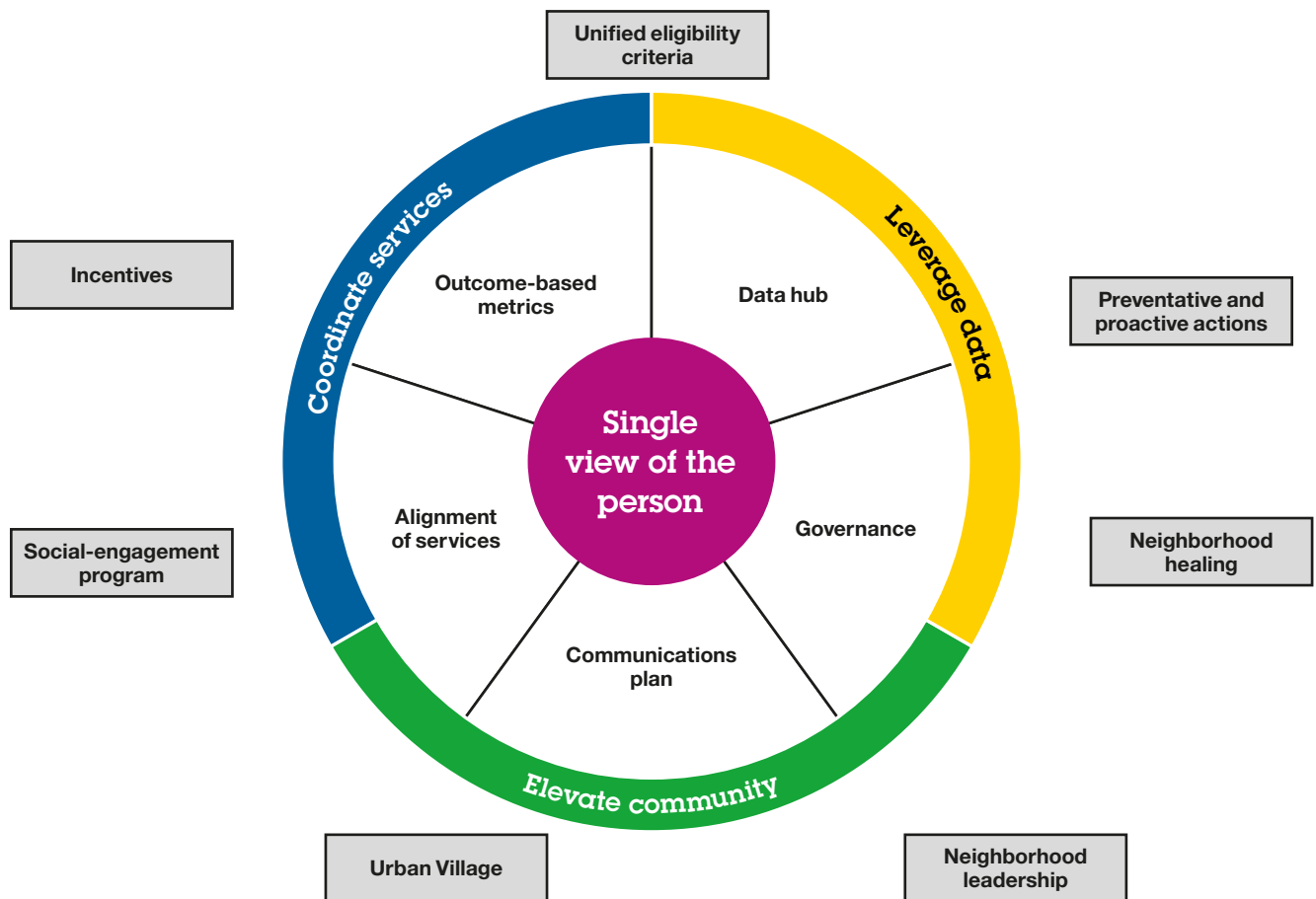

Figure 3: The recommendations as a system

Data as an asset

The City should establish a structure for data governance to empower its decision makers. This Data Hub should include processes and standards for harnessing the power of data and use innovation to solve complex and pervasive issues in order to help Rochester better serve its communities.

Governance framework

Implementing a governance framework is critical to ensuring collaboration and accountability across Rochester. The diverse range of active participants addressing poverty is a strength for the City, but a framework that provides clarity and direction to participants can help enhance the City's efforts. It also allows the City to track progress and maintain continued focus.

Change Management Plan

Foundational changes in the City's approach to poverty are critical to building and sustaining a community that is able to reduce poverty. The City should develop a Change Management Plan to help communicate and share information about poverty and opportunities to help alleviate it. This will help drive community understanding and unite the community through collaboration.

Alignment of services

Provider networks, funding sources and government agencies need to align their services and coordinate delivery to help ensure those in poverty conveniently receive the services that will help them most. By implementing the "no wrong door" approach, providers can offer people in need a single point of contact to identify, coordinate and monitor the services they require.

Unified eligibility criteria

Navigating the broad range of eligibility requirements for different programs can prevent people in need from accessing critical assistance. By creating and applying unified eligibility criteria across programs and services, the City can help more people in need access the suite of services that will give them the tools and opportunities necessary to achieve self-sustainment.

Preventive and proactive actions

Programs should be designed and resources should be allocated to help providers identify individuals who display early signs of being at risk of poverty. They should also identify those who are striving for self-sufficiency and need incremental assistance to achieve it.

Neighborhood healing, neighborhood leadership and Urban Village

The City should leverage the power of the community during program design and envisage a neighborhood that people choose to move to, rather than move away from. A strategy of tailored services, supportive infrastructure and personal engagement through individual mentoring and business sponsorship will help create a new paradigm for afflicted neighborhoods.

Social-engagement program

Rochester should develop and implement a social media platform that encourages and uses community engagement to establish a foundation for change. This platform will help the City generate feedback that can be applied during future program development, amending current programs or validating current approaches. To support the platform, Rochester should also implement an "innovation pipeline" to channel ideas from the community into the design and review of programs.

Incentives program

The cultural transformation required of service providers, the community and people in need to help ensure that collaborative and coordinated efforts succeed are significant. The City of Rochester should implement an incentives program to help encourage this transformation and should refer to trials in other cities, such as New York[10], that have demonstrated success.

C. Roadmap

Figure 4 provides a summary of the roadmap of recommendations, while Figure 5 offers a more detailed look at the actions and timing necessary to achieve these recommendations.

Align services
Shift to outcome-based metrics
Create a governance framework
Implement a Change Management Plan
Leverage neighborhood leadership
Manage data as an asset
Establish a single view of the person

Immediate (6 months)

Introduce an incentives program
Develop unified eligibility criteria
Create the Urban Village
Foster neighborhood healing
Launch a social-engagement program
Design for proactive and preventive actions

3 – 5 years

Measure… Learn… Improve… Persist… Measure

5 – 15 years

Figure 4: Summary of roadmap of recommendations

Recommendation		Actions		
		Short term (0 – 3 months)	**Medium term (0 – 12 months)**	**Long term (0 – 36 months)**
1	Align services	• Establish working council across providers • Confirm objective and scope	• Confirm matrix of services across providers • Develop framework for engaging with individual	• Assess effectiveness of engagement approach • Review technology solutions to assist with engagement
2	Shift to outcome-based metrics	• Engage stakeholders to share context and objective • Establish working council • Review current metrics	• Agree on framework for outcome-based metrics (Phase 1 and Phase 2 approach) • Confirm funders' alignment to measures for resource allocation	• Establish intervals for reporting and monitoring Phase 1 • Initiate Phase 2 metric review
3	Introduce an incentives program	• Engage stakeholders to share context and objective • Review lessons from similar programs	• Agree on financial and nonfinancial incentives • Determine funding sources for financial incentives • Agree on targets for incentives • Communicate targets and incentive applicability	• Monitor and report achievement • Review and revise program as required
4	Create a governance framework	• Confirm governance framework • Define roles and responsibilities for each functional body • Define terms of reference for each functional body	• Identify members to nominate for each role • Review nominations and appoint • Communicate governance framework to stakeholders and community	Initiate meetings and execute to terms of reference
5	Implement a Change Management Plan	Develop a multi-phased communications plan	• Implement Phase 1 of the plan • Review and align Phase 2 • Implement Phase 2	• Execute communications plan to support the RMAPI milestones • Review and revise as required
6	Develop unified eligibility criteria	• Assess current eligibility criteria and identify inconsistencies • Engage with county, state and federal governments to communicate intent of review • Establish a unified measure	• Seek waivers from appropriate government bodies • Develop a measurement system to track the long-term cost benefit of the waivers	Report to the relevant government bodies the net financial effect of waivers secured
7	Create the Urban Village	• Establish joint planning forum with all key stakeholders • Develop plan to address neighborhood transformation	• Endorse plan, scope and timing • Communicate strategy to stakeholders and community • Agree on measures of success	• Execute plan • Monitor progress and milestones • Measure and report outcomes

Figure 5: Roadmap of recommendations with action items

Recommendation		Actions		
		Short term (0 – 3 months)	**Medium term (0 – 12 months)**	**Long term (0 – 36 months)**
8	Foster neighborhood healing	• Confirm scope and objective of program • Engage key stakeholders, including third-party financiers • Review case studies and adopt learnings from previous programs	• Review options for implementing a home-ownership scheme • Review proposed structure to ensure good governance and alignment to objectives • Agree on measures of success	• Implement home-ownership scheme • Monitor and measure impact as a leading indicator
9	Leverage neighborhood leadership	• Evaluate program options • Establish neighborhood leadership steering groups	• Implement pilot program • Review pilot program with community input • Develop implementation plan	Staged implementation of neighborhood leadership program
10	Launch a social-engagement program	• Agree on objective and scope of social-engagement platform • Identify potential technologies	• Agree on initial innovation pipeline • Commence execution of innovation ideas • Evaluate and deploy technology	• Monitor technology utilization • Enhance functionality for continued engagement • Continue innovation pipeline
11	Manage data as an asset	• Establish a common policy for data sharing • Appoint a data steward within each agency and establish a data team • Identify nominees for Chief Data Officer (CDO)	• Review areas of potential action • Agree on priority based on impact • Develop plan to execute • Commence execution of activities • Appoint CDO • Coordinate with team to develop outcome-based measures to ensure availability of data	• Monitor and measure actions and findings • Revise plan and priorities as insights materialize
12	Design for proactive and preventive actions	Collate specific person-in-need data for insight into experience through the system	• Identify the set of social services that must be aligned • Engage with relevant teams to share ideas and insights	• Utilize findings from new metrics to validate areas of greatest impact • Focus resources on services that will preempt poverty journey
13	Establish a single view of the person	• Bring existing data sets together • Define the critical set of questions for data analysis based on the RMAPI objectives	Develop strategy, requirements and plans to enable a person-centric model for social services systems	• Review strategy and make changes as required to position for upcoming challenges and opportunities • Review and utilize new technology • Adapt systems and processes

4. Recommendations

Recommendation 1: Align services

The City needs to work across the provider network, funding sources and government agencies to broadly implement coordinated services. These coordinated services are essential to helping people in need climb out of poverty and achieve self-sustainment.

Scope and expected outcomes

Scope

The City will need to align programs and services that focus on delivery to individuals in need. Currently, as people in need interact with the system, they engage with a number of different service providers that are each focused on their specific program.

This approach places an additional burden on the individual who must engage with multiple providers and explain their circumstances to different individuals each time. It also makes it difficult for agencies to deliver consistent and coordinated services. Furthermore, it adds to the challenge of developing a relationship of trust and understanding between the service providers and the person in need.

The IBM team discussed a "single point of entry" in a number of interviews with key stakeholders. This approach would allow a person to seek service from one location and have all of their needs understood and addressed. In order for an approach like this to be effective, however, entry point providers would need to fully understand all available services and the needs those services address — not just the services of their organization.

With a single point of entry, providers would be able to support the organizational design concept "no wrong door." In this model, there are multiple entry points into the system. With "no wrong door," it doesn't matter who an individual reaches when seeking help — he or she is still able to access the required assistance.

In this scenario, providers would assess individuals to determine the services they need and are eligible to receive. A provider operating as the services coordinator would help develop a plan and generate referrals when additional service providers are necessary.

Service delivery representatives from all providers would form a multidisciplinary team that collaborates to deliver services in a coordinated and effective manner (see Figure 6). The team would work together to establish the program, as well as throughout the individual's journey.

The team would monitor individual progress to determine if a service is effective and follow up with individuals to see if results are sustainable. Ideally, teams would have access to a technology system that provides a single view of the individual (see Recommendation 13), but that is not required for implementing this recommendation.

Technology could significantly help the City align its services and offer providers the person-centric view they need. The IBM team recommends both a near- and immediate-term solution for technology enablement, along with a long-term solution that scales for size and completeness.

Generally, providers face challenges to afford, implement and sustain technical solutions, such as computers, infrastructure, modern applications, databases, user training and support staff. As a result, these organizations are buried in paper and unable to analyze valuable data that would help them in their work.

The near-term technical solution would provide nonprofits with an easy-to-use, cloud-based application built specifically for service coordination. Capabilities would help organizations manage information related to contracts, programs, individuals and families. This would include program enrollment, progress tracking, outcome management and operational reporting.

To support data sharing, this solution would provide data extracts in standard formats. Delivering this solution in a cloud-based model reduces the infrastructure footprint, minimizes the maintenance burden and reduces the overall funding requirement.

Recommendation 1: Align services (continued)

Scope and expected outcomes (continued)

Case study: SafetyNet

To help nonprofits address the challenges of managing their data, IBM Corporate Citizenship & Corporate Affairs created SafetyNet, free software that provides an end-to-end program service delivery for social and human services agencies. It was designed with the help of leaders from the nonprofit industry.

SafetyNet provides nonprofits with a case-, program- and outcome-management tool that provides a holistic view of a family unit and allows the nonprofit to track client progress, program outcomes and contract milestones.

The application makes it easier for front-line caseworkers and administrators to collect, manage and track key data, and it provides a single view of benefits and services within an organization. Finally, it standardizes, centralizes and leverages data to reduce the time required for reporting and administrative and assessment processes while also supporting strategic decision-making and planning.

A long-term solution to address the broader RMAPI user population (providers, schools, government organizations and NGOs) requires a robust set of integrated functionality supported by a common, shared database. Features of this solution include the following:
- Person-centric application
- Mobility
- Master data management
- Content management system
- System interfaces
- Data security
- Role-based user access
- Audit tracking and reporting
- Data warehouse
- Operational reporting
- Analytics and predictive analytics
- Document management
- Disaster recovery and performance

For a definition of these capabilities and design principles, please refer to Appendix D.

Expected outcomes
- Needs of individuals are addressed no matter where they enter the system.
- Services are consistently determined, planned and delivered holistically.
- Programs demonstrate their alignment and effectiveness for the individual.
- Fewer individuals and families fall back into poverty.
- Fewer individuals and families enter into poverty.

Cost of inaction
The RMAPI will help reduce poverty across the Crescent, but data indicates that poverty levels will continue to rise. Without significant action, the population of those in poverty by 2028 will exceed the population of those with jobs.

Recommendation 1: Align services (continued)

Proposed owner and stakeholders	Suggested resources needed
Owner: RMAPI **Stakeholders:** • Funders • Service providers • Education • City • County	• Governance structure • Stakeholder representatives • Community subject matter experts (SMEs) • Consultants • Technical infrastructure **Cost estimate:** • Short term: Low • Long term: Medium
Dependencies	**Key milestones, activities and time frame**
Willingness of key providers to collaborate and share information on services and people	**Short term:** • Expand pockets of collaboration through analysis and replication of existing models (such as Jordan Health, Baden Street). • Equip nonprofits with readily available technology solutions to enable limited service coordination and data sharing capabilities • Implement a pilot or proof of concept of short-term solutions to evaluate and adjust prior to launching the complete recommendation **Long term:** Implement a fully integrated collaboration model and enable a technology system across service providers, funders and government
Priority	
High	

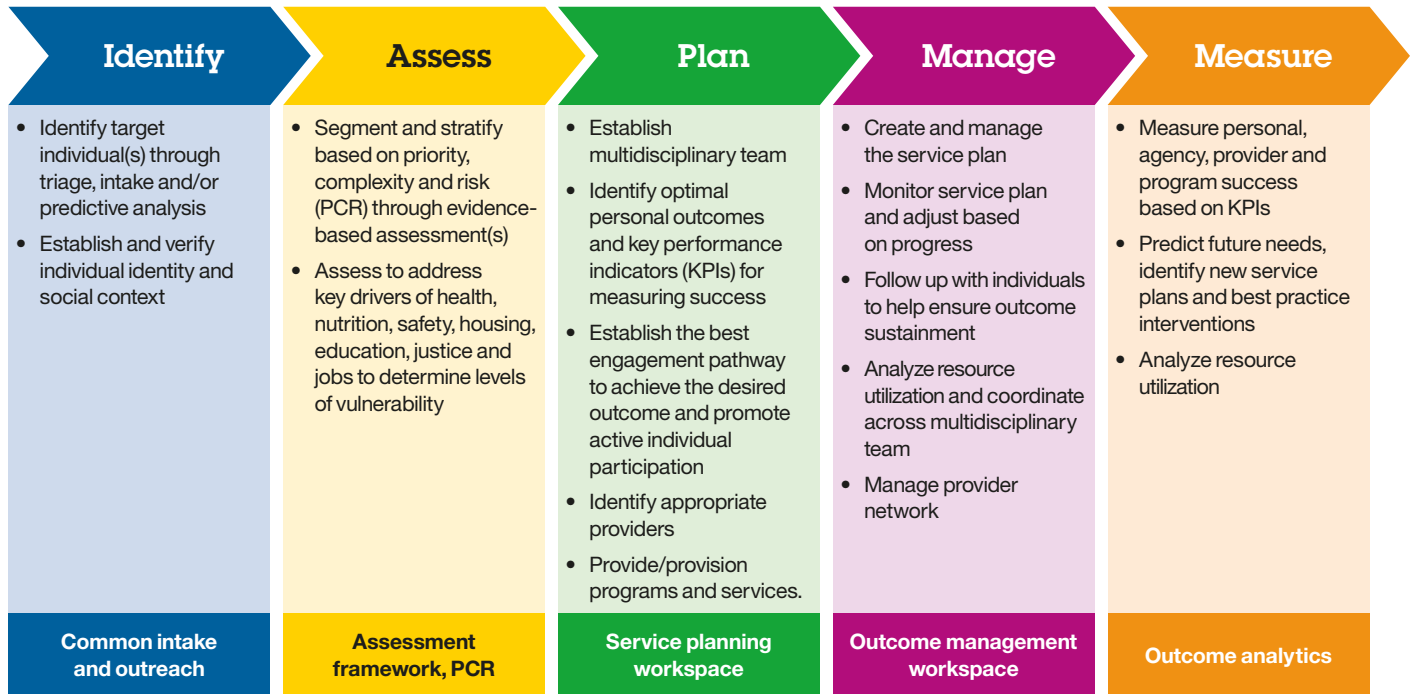| Identify	Assess	Plan	Manage	Measure
• Identify target individual(s) through triage, intake and/or predictive analysis • Establish and verify individual identity and social context	• Segment and stratify based on priority, complexity and risk (PCR) through evidence-based assessment(s) • Assess to address key drivers of health, nutrition, safety, housing, education, justice and jobs to determine levels of vulnerability	• Establish multidisciplinary team • Identify optimal personal outcomes and key performance indicators (KPIs) for measuring success • Establish the best engagement pathway to achieve the desired outcome and promote active individual participation • Identify appropriate providers • Provide/provision programs and services.	• Create and manage the service plan • Monitor service plan and adjust based on progress • Follow up with individuals to help ensure outcome sustainment • Analyze resource utilization and coordinate across multidisciplinary team • Manage provider network	• Measure personal, agency, provider and program success based on KPIs • Predict future needs, identify new service plans and best practice interventions • Analyze resource utilization
Common intake and outreach	**Assessment framework, PCR**	**Service planning workspace**	**Outcome management workspace**	**Outcome analytics**

Figure 6: Coordination of services to enable pathway to success

Recommendation 2: Shift to outcome-based metrics

The City's programs and service providers should transition from activity-based reporting to outcome-based metrics. This will help an organization's performance assessment align more with its goals.

Scope and expected outcomes

Scope

Currently, many providers and funders assess program performance and make decisions on program viability based on static metrics that count the completion of an activity, such as the number of job training programs delivered.

Adopting outcome-based metrics will help the City and funders understand the impact of programs, so they can confidently determine whether the service has made a difference. For example, after an individual has completed job training, the program that provided that job training should not only be able to determine if the individual was able to find employment but also track that individual's subsequent success in employment and overall financial status (see Appendix E for additional information).

Many programs' current measurement systems are based on lagging metrics. These systems report on what has already happened and, in many instances, many months after the activity or service has been completed. Outcome-based metrics will provide rich data that will help providers track key indicators and respond with more agility when addressing the needs of those they serve (enabling Recommendation 12).

Outcome-based metrics, if deployed well, can be used to create an environment of collaboration and accountability. Providers want to understand that the work they do is having the intended effect. It is important that any review of provider performance therefore not be punitive.

Increasingly, organizations are looking to understand how they are performing and where they should focus resources.[11] The goal of establishing and reporting outcome-based metrics is to improve program performance and help service providers and funders allocate resources to the services and programs that will yield the most benefit to those they are intended to serve.

While the process of establishing this system will be challenging, it must be a priority. Funders will play a key role as they can require performance reporting in funding applications and use outcome-based assessments to make funding decisions. One of the funders already has this model in place with the National Conference of State Legislatures and employs it within 32 states, including New York.[12]

Service providers should transition to outcome-based metrics in a phased approach and in parallel with Recommendation 11 to allow confidence in the new reporting to develop. All key stakeholders (funders, providers, business groups and data teams) will need to be involved in this work. Stakeholders should agree on what performance metrics to measure first and then determine how to measure those metrics.

Some providers in Rochester are already reporting success with the new outcome-based metrics.[13] The practices of these providers should be shared as an example to assist others who will be starting this new reporting.

Expected outcomes
- Programs measure the impact on the person they are serving.
- The benefit of the program can be celebrated and replicated.
- A more accurate measure of success will exist.
- Funding and resources will be allocated to programs that make an impact.
- Transparency in performance and accountability for the results of programs will be established.
- Programs will be based on collaboration and a focus on the person in need.

Cost of inaction
The cost of inaction includes the following:
- Success of programs will not be understood or measured appropriately.
- Programs will not be focused enough to assist those they intend to serve.
- Resources and funding may be directed to programs that yield minimum benefit.
- Learning from successful programs will not be leveraged.
- Competition between agencies for funding will perpetuate a self-sustaining mindset.
- Community and legislators will lose confidence that the poverty issue can be improved.

Recommendation 2: Shift to outcome-based metrics (continued)

Proposed owner and stakeholders	Suggested resources needed
Owner: RMAPI **Stakeholders:** • Funders • Service providers • City • County • State	• Agreed upon data sources for collecting performance information • Reporting templates **Cost estimate:** Low

Dependencies	Key milestones, activities and time frame
• Funders adopt an outcome-based approach to resource allocation • Technology solutions and a data strategy to help organizations track outcome-based data	**Short term:** • Identify all key stakeholders and communicate context and intention • Establish working council • Collate current measures of performance and circulate to working council • Engage external party to facilitate working council sessions • Schedule working council sessions • Discuss current metrics and explore outcome-based metrics • Confirm funders will refer to outcome-based metrics for resource allocation **Medium term:** • Agree on the metrics to measure, then determine how to measure those metrics • Agree on intervals for reporting, allocating the more difficult metrics to measure to a later stage **Long term:** • Establish a timeline and forum to share performance information and knowledge • Begin tracking and reporting new metrics • Maintain working group forum to review, revise and update as required

Priority
High

Recommendation 3: Introduce an incentives program

The City should introduce an incentives program for service providers, people in need and the community to accelerate participation and drive engagement and transformation across the community.

Scope and expected outcomes

Scope

The City should consider using incentives to help drive adoption of and participation in its efforts to change behaviors and engage more people in its efforts against poverty. For the recommendations included in this report to be successful, the City will need to undertake a considered effort to change behavior, mindsets and habits. The use of incentives as an enabler to drive to the desired behavior and encourage participation should be considered.

Rochester can learn from other cities, including New York City, which note the importance of setting incentives at the appropriate level and directing them toward the right area of focus.[14] Incentives must be sufficient enough to influence and activate the desired behavior while still encouraging participants to strive for self-sustainability.

To implement incentives, the City should take the following steps:
1. Determine incentive recipients
2. Define the incentives

1. Determine incentive recipients

1.1   **Person in need** — Providers that have introduced cash awards or payments to people in need have found that these incentives can drive participation in their programs, but it does not motivate all who are experiencing poverty. Those who are already striving to improve their circumstances will most likely benefit or be motivated by incentives, while those who still need to transform their behavior may not be as impacted.

1.2   **Service providers** — Incentives to providers can help accelerate the changes necessary to implement each recommendation. Incentives for this group could apply at the organizational, team or individual level to recognize not only what they achieve but also how they achieve it.

1.3   **The community** — This group includes businesses and individuals. Encouraging participation and engagement among the community could help change community perceptions of those in poverty and make the community an active participant in addressing the challenges of poverty.

2. Define the incentives

The traditional view of incentives focuses on financial motivation, giving money to individuals to encourage them to behave or act in a particular way. Financial incentives could include the following:
- Individuals who nominate themselves as mentors to students or those starting employment could be eligible for a concession on a City/county service
- Business participation in employment opportunities could be incentivized via tax exemptions, similar to what New York City does for its Jobs-Plus program[15]

Introducing nonfinancial incentives in addition to financial incentives will help the City address community concerns surrounding financial incentives. Also, in business environments, nonfinancial awards have proven more effective at motivating performance than financial rewards.[16] Nonfinancial incentives could include the following:
- Peer and public recognition for an individual within a service provider who has met or exceeded one of the new outcome-based measures
- A Mayor's awards program for service providers to recognize high performance and drive participation in the recommended initiatives

The City should implement nonfinancial incentives first to encourage engagement and collaboration within the community. Later, the City can assess options for financial incentives.

Expected outcomes

For people in need
- Encourages engagement with providers to understand services eligibility
- Encourages service opt-in to set them on a path toward self-sustainment
- Provides direct assistance that helps improve financial circumstances
- Enables measurement of program performance as participation increases

Recommendation 3: Introduce an incentives program (continued)

Scope and expected outcomes (continued)

For service providers
- Drives focus on the priorities aligned with the City's overall goals at reducing poverty rather than with program goals
- Increases collaboration for results and shared outcomes
- Encourages positive engagement and reward for participation and behaviors that eventually become self-sustaining

For the community
- Business investment in Rochester is more attractive as incentives encourage the establishment or expansion of business operations
- Encourages individuals to share skills with those in need through mentoring and other programs

Cost of inaction
- Agencies continue to operate as they do today, missing out on opportunities to improve engagement and participation.
- Persons in need continue to struggle with the emotional, mental and physical struggles of living in poverty.
- The broader community reinforces the mindset that poverty is someone else's problem and misses an opportunity to contribute.

Proposed owner and stakeholders	Suggested resources needed
Owner: RMAPI **Stakeholders:** - City - State - Service providers - Funders - Persons in need	- People to review and establish the incentives - Tools and reporting to capture and record performance data - Collation and feedback process for nonfinancial incentives - People and tools to distribute incentives **Cost estimate:** Low to medium
Dependencies	**Key milestones, activities and time frame**
- Agencies must be able to report on the incentive measures. - Outcome-based performance measures in place to drive the desired behavior. - Awareness of recipients in the incentive program. - Support from the state and municipal government for potential incentives (such as tax concessions for mentors).	**Short term:** - Engage with key stakeholders to share context and objectives for incentives program - Identify options for nonfinancial awards - Agree on nonfinancial incentives and targets for those incentives - Agree on, communicate and initiate incentives program **Medium term:** - Identify potential financial incentives - Determine design for financial incentives, including operation and monitoring - Determine funding sources for incentive payment - Communicate incentive targets and eligibility requirements **Long term:** - Monitor and report achievement - Celebrate successes - Review and revise incentives program as required

Priority

High

Recommendation 4: Create a governance framework

The City should establish a governance framework to guide and oversee the implementation of the recommendations in this report.

Scope and expected outcomes

Scope

The City will reach milestones as it implements each initiative, and a governance framework is necessary to help ensure Rochester maintains a sustained focus and commitment to the roadmap of recommendations. This focus will help the City achieve its desired poverty reduction intervals at five, 10 and 15 years.

The governance framework will be critical in helping the City do the following:
- Enable independent SME input on specific initiatives
- Agree on and oversee priorities as efforts progress
- Track progress of initiatives and recommendations
- Address issues and roadblocks that may come up over time

The City should create a multi-tiered framework that encompasses the working councils, a steering committee and a board. The framework will need to be robust in order to align various people, processes and systems with the initiatives necessary to reduce poverty and improve services and programs over time.

Governance models (see Figure 7) should be well defined and well structured. They should provide guidance, clarity and consistency for all those involved and drive accountability and transparency on performance and outcomes. Without robust and coherent structures in place, it is unlikely that the City will be able to maintain progress on the recommendations (both at initiative and roadmap level).

The diverse range of stakeholders who need to collaborate, participate, understand and/or execute the recommendations must have a common understanding of expectations. Areas that the governance framework should address include the following:
- Decision-making responsibilities
- Management of priorities
- Management and controls around changes to priorities
- Reporting of delivery outcomes
- What progress information will be shared and with whom
- How to address roadblocks
- How to identify and mitigate risks

To establish the governance framework, the City should take the following steps:
Step 1:
Establish a board of experts whose members are independent of the participants or active contributors in the anti-poverty system and who have subject matter expertise that will help them review and monitor the progress of the roadmap. This group also will provide a mechanism for the City to access external industry insight and experience.

More important, the board should be empowered in its terms of reference to monitor progress on initiatives and to advise the steering committee on the execution and delivery of the roadmap. The independent board of experts will be instrumental in providing the accountability required to ensure priorities do not shift and the roadmap's momentum is sustained over time.

Step 2:
The City should review the constituency of both the current steering committee and the composition of future working councils to deliver the individual recommendations contained within this report. The steering committee should include the mayor, county executive and the assemblyman for District 136, along with the lead of each working council. The steering committee should appoint a chairperson, but this individual should not be one of the working council leads or political representatives.

Working councils should be composed of a range of different individuals as opposed to the same individuals serving across a range of tasks. These councils should include a cross section of representatives from different groups to provide diversity in experience. Gaining input from different groups and considering different ideas and perspectives is paramount to ensuring that all possible options have been considered and represent all members of the community.

Recommendation 4: Create a governance framework (continued)

Scope and expected outcomes (continued)

Each functional body within the governance framework should have clear terms of reference that detail critical information, like the following:
- Defined purpose and authority
- Number of members
- How the bodies are constituted
- Group's role and level of authority
- Tenure of members
- Frequency of meetings
- Roles and responsibilities
- Changes to membership
- How the group is formed/dissolved

Expected outcomes
- Groups involved are able to focus on the "big picture" vision rather than individual areas of delivery.
- Accountabilities, roles and responsibilities are clear.
- Diverse views are included in decision-making process.
- Knowledge of external experts is leveraged.
- Decision making is focused on merit.
- There will be consistency when following the roadmap, even when political representatives change.
- There will be increased community confidence in program management and integrity in outcomes.

Cost of inaction
- Loss of momentum and/or change in focus as priorities change.
- The community, agency and individual lose confidence in the system.
- Resources allocated to inefficient or suboptimal programs.
- Disconnection that inhibits learning from or leveraging opportunities presented by the practices of other cities/countries.

Proposed owner and stakeholders	Suggested resources needed
Owners: City and county **Stakeholders:** All involved in the RMAPI	Predominantly a people investment. Some financial remuneration may be required to attract independent members to the governance board. **Cost estimate:** Low

| Dependencies	Key milestones, activities and time frame
• Willingness to appoint independent members to constitute the board and have them monitor progress • Nominations of representatives in other bodies to ensure diverse input	**Short term:** • Confirm governance framework • Define roles and responsibilities for each governing body (board, steering committee and working council) • Define terms of reference for each body **Medium term:** • Identify members to nominate for each role • Review nominations and appoint • Communicate governance framework to stakeholders and community **Long term:** • Initiate meetings

Priority	
High	
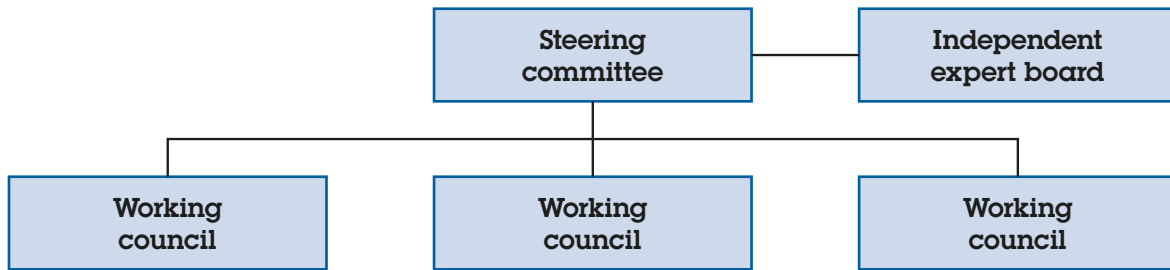
Figure 7: An example of a governance model

Recommendation 5: Implement a Change Management Plan

To effectively reduce poverty in Rochester, the community needs to understand the issues and causes around poverty. The City should develop a Change Management Plan to assist with communicating information, opportunities and achievements in its work to alleviate poverty and drive community understanding and collaboration.

Scope and expected outcomes

Scope

To make a broad and lasting impact on poverty, the City, service providers, funders, business groups and individuals will all need to be involved at different levels when implementing the roadmap of recommendations.

Many of these groups and individuals will need to make changes to how they currently operate. Some will need to change the focus of what they are doing to actively participate in the success of an initiative. Others may need to stop what they are doing altogether. Whatever the shift, this transition will be a challenge, as it will involve operating in a fundamentally different manner than today.

The City also must build enduring and trusting relationships to facilitate collaboration and understanding across the community. The community must align on what needs to be done differently, why it needs to be done that way and the impact these changes should yield. A considered, long-term plan for change, underpinned by a comprehensive communications plan, will be key to raising awareness of the real issues that surround the state of poverty in Rochester.

The change and communications plan should be developed by a provider with expertise in managing and implementing change to ensure that it considers and addresses key elements and incorporates best practices to make this shift successful. Information to consider includes the following:
• The growth and concentration of the poor in Rochester
• The interconnected nature of poverty, revealing the true complexity of the issue and the multidimensional approach required to reduce it
• The large number of families that escape poverty over a three-year period[17]
• The number (approximately 30%) of these families that fall back into poverty within five years[17]
• The broad effects of poverty on health, education and the broader economic prosperity of all of Rochester
• How the actions being taken will address these issues
• How the changes that are required will contribute to improving the City's poverty situation

To help the RMAPI achieve success, the City needs to implement a combination of reactive and proactive measures to address poverty issues and involve the broader community in these efforts. Involving the community starts with informing it.

Recommendation 5: Implement a Change Management Plan (continued)

Scope and expected outcomes (continued)

Expected outcomes
- Improved trust through targeted two-way communication between the City and the community
- Increased collaboration that makes achieving other recommendations possible
- Greater engagement as more groups and individuals understand the impact of specific changes
- A mechanism to celebrate success as milestones are achieved
- Community buy-in on efforts to reduce poverty as everyone is involved in the process
- Focus that helps ensure sustained momentum
- Greater sense of community to actively support local social, education, health and safety programs, thereby increasing their probability of success

Cost of inaction
Poor knowledge of poverty issues or incorrect assumptions within the community will cause ineffective engagement and could result in community pressure that drives plans in directions counter to the roadmap of recommendations.

Proposed owner and stakeholders	Suggested resources needed
Owner: City of Rochester Communications Bureau **Stakeholders:** City of Rochester	- Communications plan - Advertising and communications resources **Cost estimate:** Medium
Dependencies	**Key milestones, activities and time frame**
The City's support behind a strategy for change and improved communications to achieve recommendations	**Short term:** - Develop a multi-phased communications plan - Implement Phase 1 of the plan and monitor for impact - Review and align Phase 2 communications - Implement Phase 2 **Long term:** Ongoing phases of the communications plan released through the RMAPI schedule

Priority status

High

Recommendation 6: Develop unified eligibility criteria

Analyze the eligibility criteria for receiving services across different programs. Determine the best unified criteria and apply for waivers at the county, state and federal government levels to replace the individual program criteria with the unified criteria.

Scope and expected outcomes

Scope

Individuals experiencing poverty are extremely likely to require a suite of services rather than a single service to facilitate their journey to self-sufficiency. Navigating the broad range of services, however, presents significant challenges.

This complexity is compounded by the different eligibility criteria individuals must meet to receive services. For example, training a young, single mother on how to pursue employment opportunities without considering her need for child care will not necessarily achieve the outcome the training and employment programs are expecting.

As eligibility requirements are determined on a program-by-program basis, regulators give little (if any) consideration to the impact the requirements will have on the individual's holistic needs.

The journey out of poverty may not be possible if a person is eligible for certain benefits but not others.

Determination and application of the unified eligibility criteria is critical to helping persons in need access the suite of services that will give them the tools and opportunities necessary to achieve self-sustainment. With so many programs and various regulation structures, defining the unified eligibility criteria will be challenging, but achieving consistency across the system will play an important role in an individual's success and is well worth the time and commitment required.

The City, funders and service providers have identified the impact that current eligibility criteria have on those they serve. This work has helped inform a plan of action to achieve the unified criteria, with key actions that include the following:
- Analyze the current eligibility criteria to determine the best unified criteria that would allow a person to access essential complementary services
- Seek waivers at the county, state and federal government levels to replace individual program criteria with the unified criteria
- Monitor and measure the outcomes of the waiver to understand cost and impact
- Approach county, state and federal governments for approval to use the unified eligibility criteria for future programs

Expected outcomes
- Accelerated progress of persons out of poverty by providing access to holistic services
- A long-term reduction of public spend on poverty programs as they become more effective
- Greater consideration of regulatory criteria on the impact of eligibility and how unified criteria should inform new programs

Cost of inaction
- No sustainable improvement in an individual's circumstances.
- Programs continue to destabilize an individual's self-sufficiency rather then enable it.
- Funds are poorly allocated, as the benefits they are intended to achieve cannot be realized.

Recommendation 6: Develop unified eligibility criteria (continued)	
Proposed owner and stakeholders	**Suggested resources needed**
Owner: Office of Management and Budget **Stakeholders:** • City of Rochester • State government	• Funders and providers to assist with analysis of criteria • Support from the state for required waivers or changes to criteria **Cost estimate:** Low to medium
Dependencies	**Key milestones, activities and time frame**
Engagement at all levels of government to effect a comprehensive review of eligibility requirements	**Short term:** • Complete an assessment of the eligibility criteria to establish a unified measure • Approach county, state and federal governments to seek a waiver for existing programs • Develop a measurement system to track the long-term cost impact of the waivers **Long term:** Annually report the net effect of the waiver initiative to relevant government bodies
Priority status	
Medium	

Recommendation 7: Create the Urban Village

The City should review key elements of neighborhood design to create the best possible environment to support the RMAPI's success.

Scope and expected outcomes

Scope

Consistently during the interviews, people in need and those who support individuals experiencing poverty noted the impact of the neighborhood on the social and emotional well-being of those in poverty. The home and neighborhood must be a place of safety and comfort — not fear and anxiety. While interventions aimed at improving circumstances in schools and the workplace are helpful, there must also be a focus on improving neighborhoods as a place of community and support for individuals who are in or at risk of poverty.

This recommendation requires a multifaceted approach, addressing housing, commercial and business investment, transportation and education to provide a comprehensive and effective neighborhood structure. It also requires a change in mindset from the traditional view of a neighborhood "hub."

The current neighborhood hub concept provides a range of necessary services within close vicinity of one another to serve those in need. This is an effective mechanism for service delivery and assists individuals who have limited time and mobility. From a design perspective, however, it presents a risk to the community, creating a neighborhood that is isolating and perceived by those outside the neighborhood as the "poor area."

The Urban Village concept envisages the creation of a neighborhood that attracts people from different demographic groups — social, economic and racial. The goal is to encourage the community to view the neighborhood as viable and desirable to move to because of the range of services, infrastructure and business offerings it provides.

For example, Purpose Built Communities[18] has had success with an approach similar to this recommendation. As new residents move in, they change the composition of the neighborhood to help establish a more robust community and, in turn, benefit all residents.

There are specific actions the City should take to establish an Urban Village model. These actions include making a comprehensive design and planning effort to ensure that all opportunities, dependencies and risks associated with creating these Urban Villages can be identified and addressed.

A few actions the City should consider when designing and planning its Urban Villages include the following:
- Assess options for providing school bus services for all students to reduce unique concerns, such as safety and inclement weather, specific to the Rochester City School District (RCSD)
- Continue with the beacon school initiative and enhance the concept with government incentives for businesses, such as grocery stores and banks (as discussed in Recommendation 3)
- Expand existing capabilities and services, such as computer access, developed in libraries
- Establish recreational centers, delivering leisure and social activities to encourage community involvement and participation
- Design neighborhoods as attractive options for multi-income residents by including green spaces, recreational activities and leisure facilities
- Integrate public transport routes to service the Urban Village centers as hubs of their networks

Expected outcomes
- A reduction in rates of relocation in troubled areas so the rates are more consistent with broader community averages
- Improved collaboration between providers colocated at Beacon School
- Economic development fueled by the concentration of people at Urban Village centers
- Sustainable improvement that spans the city
- Improved social diversity as these neighborhoods become attractive to multi-income individuals and families

Cost of inaction
The result of inaction would be continued high relocation rates within communities and a continued sense of isolation for both families and children in impoverished areas. This would increase community stress and negatively impact the effectiveness of social, educational, safety and health programs.

Recommendation 7: Create the Urban Village (continued)	
Proposed owner and stakeholders	**Suggested resources needed**
Owner: Department of Neighborhood and Business Development **Stakeholders:** • Neighborhoods • RCSD and Regional Transit Service (RTS) • Business community	• City planning resources • Resources involved in the current beacon school program • Libraries offering expanded services **Cost estimate:** • Planning: Low (leveraging existing programs) • Execution: High (capital intensive)
Dependencies	**Key milestones, activities and time frame**
• Acceptance of the principles that will constitute the new Urban Village concept • Willingness of businesses to establish a presence in the specified neighborhoods	**Short term:** • Establish a joint planning forum with RCSD, RTS, the business community and neighborhood leadership • Identify the areas/neighborhoods to transform and the anticipated time frames (leverage the Focused Investment Strategy[19])
Priority status	
High	

Recommendation 8: Foster neighborhood healing

The City should implement a neighborhood-healing program focused on alleviating the negative impact that the trauma of poverty can have on both children and families. This trauma can impede the efforts of programs that seek to provide assistance to those in poverty.

Scope and expected outcomes

Scope

Much of the trauma present in Rochester is caused by a lack of disposable income for those affected by poverty. Alleviating some financial pressures could help significantly reduce stress within those households. The greatest expense many families and individuals have is on one of the fundamental needs of a community: housing. Currently housing costs are very low, but rents are relatively high, with a high percentage of "absent landlords."

The City should help reduce the financial pressure of housing by reviewing rent rates and rental returns. The City can also help facilitate home ownership by implementing a combination of "realistic" rental options and supported home-ownership schemes.

Current rental returns in Rochester are significantly higher than the broader US market. Average rent of properties in marginalized neighborhoods in Rochester is $791 per month, with the average purchase price being $110,000.[20] This represents an 8.6% return on capital. The broader US market achieves 5.2%. Within the Rochester market there are a number of homes that could be acquired for significantly less than $110,000 ($30,000 – $40,000), with rents maintained at approximately $575 – $650. This would represent a return on capital of 17.2% to 26.0%.

Rochester should investigate the viability of an ethical property investment initiative that helps ensure that rental properties are kept in good repair and are attractive to investors with the yield they return. In addition, it is recommended that the relative low cost of home ownership within Rochester be exploited. The City should promote a scheme in which it guarantees payments on behalf of residents who would not be able to secure a loan on their own.[21] This would give individuals an opportunity to use their income to build equity in their property, rather than paying rent, which ultimately benefits the landlord.

Expected outcomes

- Current mortgage payments would be reduced, thereby increasing personal disposable income.
- Home mortgage repayments (under the recommended scheme) would approximately equate to rental payment amounts.
- Competition would increase in the rental market, causing other rents to decrease and property management/maintenance to improve.
- Relocation rates for families would decrease.

Cost of inaction

The effect of community trauma, especially on children, would continue to negatively impact lives, particularly in the areas of health, education and safety.

Recommendation 8: Foster neighborhood healing (continued)	
Proposed owner and stakeholders	**Suggested resources needed**
Owner: Department of Neighborhood and Business Development **Stakeholders:** • Neighborhood • City of Rochester	Experts who are able to advise on property and financial options **Cost estimate:** Medium
Dependencies	**Key milestones, activities and time frame**
Ability of the City to invest in buying properties or engage with private investors who will accept conditions required to facilitate an ethical housing scheme	**Short term:** • Establish a working council composed of both property and business experts to validate the market opportunity • Investigate the viability of a government mortgage guarantee scheme or a similar/equivalent approach • Based on the findings of the working council, implement strategies and actions recommended **Long term:** Monitor and report rental amounts and home ownership over the course of implementation
Priority status	
Medium	

Recommendation 9: Leverage neighborhood leadership

There are many resourceful members of the community in Rochester who find themselves in poverty. To effectively reduce poverty in Rochester, the City needs to engage the community through local leadership.

Scope and expected outcomes

Scope

To identify and use neighborhood leadership to encourage community engagement, Rochester can apply approaches similar to the Family Independence Initiative[22] or the Community Leadership Project.[23]

The principle of these approaches is that even a community subject to significant levels of poverty contains worthwhile ideas and a will to improve its circumstances. The difficulty is in engaging with the community in a meaningful way so that ideas are able to surface and be acted upon in an efficient manner. Neighborhood leadership can be the conduit for both creating and maintaining this engagement.

Community engagement would help facilitate the identification of community-initiated ideas and the collection of data on a neighborhood's progress as it moves out of poverty. This data collection would create a feedback loop to ensure neighborhoods use and improve upon the most effective community-initiated ideas to reach even better outcomes.

The goals of the neighborhood leadership program include the following:
- Build a sense of community that becomes more satisfied with the actions to address poverty over time
- Generate high-quality longitudinal data sets to better inform the decisions of program delivery organizations, such as providers, the City or the county

To support community engagement, the City should do the following:
- Encourage the development of "micro" neighborhoods within designated streets (six to eight households) as described in the Family Independence Initiative
- Collect data, including tenancy, employment and crime, to create granular longitudinal data sets
- Allocate resources to support neighborhood development ideas
- Financially incentivize participation of individuals, families and businesses to contribute to both the collection of data and ideas

Expected outcomes
- Create longitudinal data sets of the community's demographic profile
- Make more-insightful decisions based on data
- Build a neighborhood that actively supports its residents and surrounding areas through idea generation and actions
- Integration by the City of other social, education, health and safety programs informed by the data collected

Recommendation 10 — the implementation of a social-engagement program — will help further enhance the implementation of the neighborhood leadership program.

Cost of inaction

The lack of a "sense of neighborhood" means that individuals and families would not have the support structure of family and neighborhood institutions necessary to fully realize the benefit of social services programs.

Recommendation 9: Leverage neighborhood leadership (continued)	
Proposed owner and stakeholders	**Suggested resources needed**
Owner: Office of Constituent Services **Stakeholder:** • City of Rochester	External program **Cost estimate:** Low
Dependencies	**Key milestones, activities and time frame**
• Ability of the City to communicate program objectives to the community • Community interest and buy-in to support program development	**Short term:** • Evaluate program options • Review existing successful programs, such as the Family Independence Initiative, and the recommendations noted above to develop pilot program • Implement pilot program **Medium term:** • Review pilot program with input from the community, social services organizations and businesses • Plan a rollout strategy for the neighborhood leadership program, incorporating the accepted recommendations from the review **Long term:** Extend the pilot neighborhood program, reflecting the recommendations from the community review
Priority status	
Medium	

Recommendation 10: Launch a social-engagement program

Reducing poverty in Rochester depends a great deal on the community's understanding of the diverse elements that contribute to poverty and its ability to collaborate on the creation and delivery of programs.

Scope and expected outcomes

Scope

Empowering individuals tends to increase participant engagement. In the past, it has been difficult for the City to effectively include the community's perspective when generating ideas to reduce poverty and during the consultation process.

Technology and social media platforms, however, are rapidly changing that, as governments around the world have started relying on these platforms to give individuals more influence today than ever before. Rochester should develop and implement a social media platform that encourages and uses community engagement to establish a foundation for change.

Much like businesses use consumer engagement platforms to connect with clients and customers[24,25], the City can use social media platforms to engage its citizens.

This platform will help the City generate feedback that can be applied during future program development, amending current programs or validating current approaches. To support the platform, Rochester should also implement an "innovation pipeline" to channel ideas from the community into the design and review of programs.

Expected outcomes
- Improve trust through communications and evidence-based decisions
- Create a pipeline of innovative ideas generated by the community
- Build a neighborhood that actively supports its social, education, health and safety programs, increasing their probability of success

Cost of inaction
Without a platform for neighborhood engagement, programs and services will continue to lack the support necessary to reach their full effectiveness and value.

Proposed owner and stakeholders	Suggested resources needed
Owner: Office of Constituent Services **Stakeholders:** • City of Rochester • Not-for-profit sector	• Communications specialist • Independent board members • Neighborhood leadership program • Social platform for community engagement **Cost estimate:** Low

Recommendation 10: Launch a social-engagement program (continued)

Dependencies	Key milestones, activities and time frame
Implementation of the neighborhood leadership program	**Short term:** • Evaluate potential (cloud-based) social platforms • Establish a neighborhood leadership working group **Medium term:** • Implement the social-engagement platform • Implement the "innovation pipeline" • Launch the social-engagement platform **Long term:** • Review "innovation pipeline" quarterly for continuous value creation • Communicate initiatives in pipeline, progress updates and upcoming initiatives to maintain community engagement

Priority status

Medium

Recommendation 11: Manage data as an asset

The City should establish a structure for data governance. This structure should include processes and standards for harnessing the power of data and use innovation to solve complex and pervasive issues in order to help Rochester better serve its communities.

Scope and expected outcomes

Scope

The City of Rochester should manage data according to the following focus areas:

1. Data governance

- **Establish a Data Hub for collaboration** — Launch a hub structure for data collaboration, in which the hub centralizes information for participants at various levels, including the City, county, top funders, health agencies, schools and colleges.

  The Data Hub must leverage the existing partnerships, alliances and shared purposes between agencies/providers and gradually evolve over time to include new members. Here, participants can share insights and best practices based on their success and work to ensure constant communication and strong partnerships across the hub.

- **Assign data stewards for the Data Hub** — Identify data liaisons from each agency/provider and appoint data stewards with clear roles and responsibilities. A data steward can be assigned to each data domain, such as health data or school performance data.

- **Define and publish data-sharing policies and guidelines** — Collectively define and publish an agreed-upon set of data-sharing policies and guidelines. Create a data coalition agreement for the members in the Data Hub. This agreement should do the following:
  a. Transcend electoral positions and tenures
  b. Be very specific about data privacy and data-protection guidelines
  c. Include education and awareness programs for the accurate interpretation and common understanding of data-related policies and guidelines

  Rochester can use the executive order from the mayor of the City of New York as an example.[26]

  These guidelines are critical to helping ensure that the City can effectively leverage data about individuals receiving services to develop insights in a way that won't jeopardize the individual's security and privacy. As part of the guidelines, establish processes for sharing a set of core data about the individual/family across hub members, as well as any results of analysis.

- **Appoint a Chief Data Officer (CDO)** — Data needs a leader. The primary role of a CDO is to understand, advocate and govern on behalf of data, in order to deliver data-informed decisions and innovation that matters. The CDO establishes the vision for data as an asset, implements data strategies and processes and directs the operational processes on how data can be used to better lead and better serve the people.

  The CDO should be at the center of implementing the management system and metrics for executing data governance actions on a day-to-day basis (see Figure 8). Over the past few years, a growing number of government agencies have appointed a CDO to help them manage their data as an asset — releasing data to citizens and entrepreneurs alike and scrutinizing it internally to derive new insights and drive efficiencies.[27]

  The CDO plays a business role rather than an IT role, and this is key to the success of a CDO focus.[28] We recommend that the CDO chair the Data Hub and is appointed as part of the City administration, reporting to the mayor.

- **Determine data governance actions** — In a methodical way, the City should develop and implement a data strategy with clear objectives, data quality management processes, data standards and data policies (see Figure 9). The City should use the appropriate tools, technology and processes to tap into core data elements and gain a single view of the individual. The CDO should implement and run the data governance management system.

- **Enable data analytics** — Build capabilities to develop analytical models and outcome measurements that the Data Hub can use to drive collective impact. The Data Hub team should start with a proof of concept to begin data analysis (see Figure 10) and continue with a proof of concept to evaluate data and put it into action (see Figure 11).

Recommendation 11: Manage data as an asset (continued)

Scope and expected outcomes (continued)

2. Data as a service

- **Leverage low-hanging fruit** — Members of the Data Hub should use free tools that are currently available to analyze existing data sets and develop key insights that can help drive specific actions for a target population.

- **Projects to help individuals exit the "treadmill of poverty"** — Identify key work streams for the Data Hub. For example, one of the first work streams could be identifying a set of targeted actions for a defined set of individuals or households, specifically those who are closer to reaching self-sufficiency in the near term and with targeted efforts (perhaps those between 200% and 300% of the federal poverty level).

- **Implement open data initiatives** — To achieve this, the Data Hub should create the following:
  - A data catalogue — a collection of key data points across agencies for end users to use in a digestible fashion
  - A data handbook — a set of guidelines to help all agencies identify meaningful information and prioritize data sets

- **Establish key performance indicators (KPIs) and a social services dashboard for the Data Hub** — This will help agencies and providers measure the impact of their current actions and enable data-informed decisions moving forward. Data Hub members should use the dashboard for regular status reporting (with a person-centric approach) but also include actionable knowledge to help make sure the right interventions happen at the right time.

3. Data for civic engagement

- **Develop data-informed key messages** — These key messages should focus on the cultural changes required to address the City's poverty issues and launch a public awareness campaign to increase public participation.

- **Connect civic engagement and upward mobility efforts** — Implement specific measureable initiatives that connect civic engagement and upward mobility, such as connecting at-risk youth or youth in poverty with initiatives focused on strengthening communities.[29]

The strategic vision behind this recommendation is inspired by the following:
- **A new way of working** — The City's evolving data engine (comprising the people, processes and technology required to use data as an asset) is integrated for municipality governance, not just to help find solutions to poverty issues but for overall municipality/county objectives.
- **Data culture** — A culture of data-informed public policies and data-driven decisions is the norm in both the private and public sectors, helping to improve outcomes.
- **Data to improve** — Learning systems and intelligent dashboards make it easier to tap into data insights and share those insights across groups.
- **A "by the people" model** — It's time to design for a customer-driven government, one that seeks active input from its citizens and applies citizens' real-time guidance to its services.

As the City progresses in its strategic vision and refines its Data Hub, it will develop its maturity in master data management.

Expected outcomes
- A governance model, process and system (see Figure 12) to guide data use, sharing and security across agencies and programs
- Ability of the City and county to leverage data through a systematic approach to make policy decisions, target resources and take data-driven action to fight pervasive issues of poverty
- Intergovernmental data sharing that drives collective impact, focused on the individual in poverty
- City and county are able to take proactive and preventive steps to realize a higher impact from program/services funding

Cost of inaction
- Continued siloed approach across service providers, resulting in isolated impact for individuals trying to get out of poverty and reach self-sufficiency
- Lost opportunity to leverage City, county and agency data that already exists
- Increasing resources and funding required to address increasing levels of poverty, but still making a lesser impact

Recommendation 11: Manage data as an asset (continued)

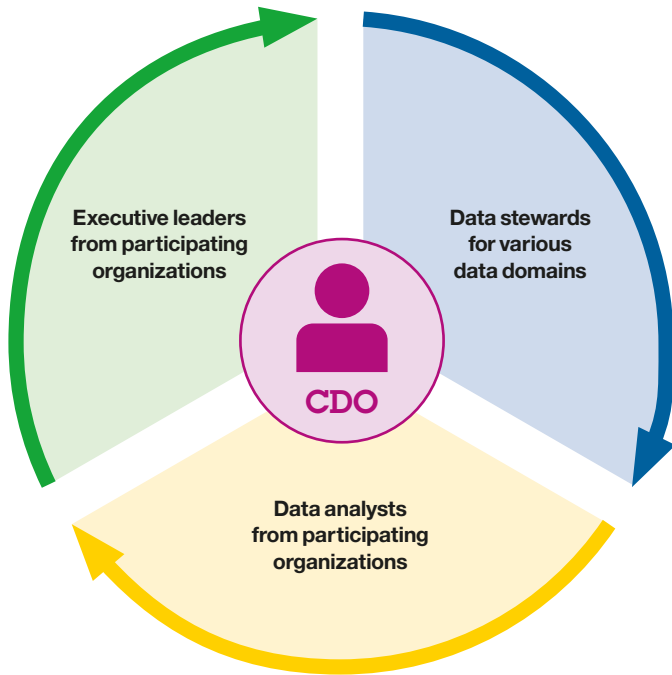| Proposed owner and stakeholders	Suggested resources needed
Owner: Mayor **Stakeholders:** • All the agencies and providers participating in the Data Hub • Citizens of the city	**People** • Data governance team • Funding plan for enabling technology and tools **Technology** • To be determined based on a strategic plan, which needs to be built after initial steps in the first six months **Cost estimate:** • Cost of resources: Low • Cost of technology: Medium (subject to solution being implemented)
Dependencies	**Key milestones, activities and time frame**
• Data Hub is established. • Data governance and team in place to analyze trends and provide actionable insights for poverty prevention. • KPIs exist to measure impact of prevention. • Ability to identify target audiences using common data on the individuals. • Ability to identify a cumulative set of programs with measurable benefits for and impact on the target audience. • Fit-gap analysis to determine long-term funding that may be required specifically to address preventive actions. • Ability to gain a single view of those in poverty.	**Short term:** • Design initial set of offerings, such as child care, health care and job training programs, for targeted population • Data Hub members agree on and establish poverty prevention metrics **Medium term to long term:** • Test outcomes from the initial set of offerings to learn from the data • Perform a fit-gap analysis to identify constraints of poverty-prevention processes • Create new policies focused on prevention • Develop a funding plan to help prevent poverty in addition to plans that address existing poverty

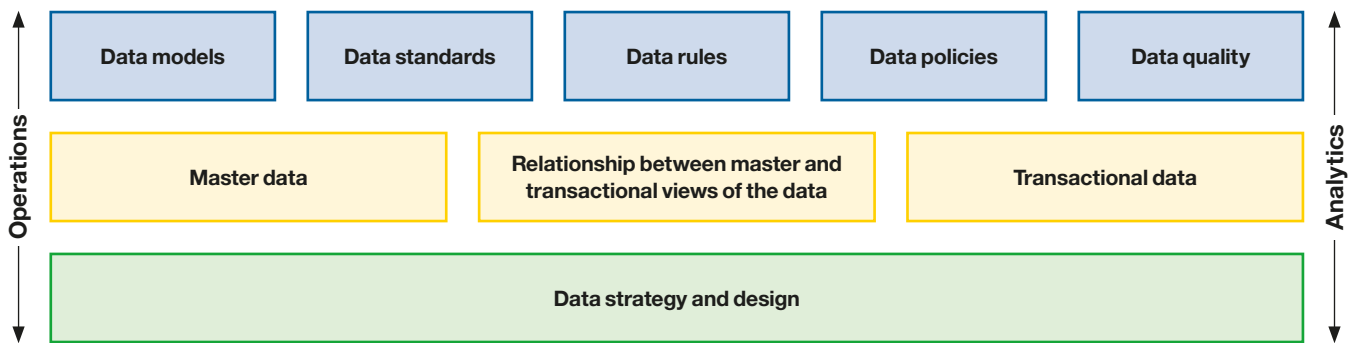**Figure 8:** The Chief Data Officer (CDO) leads data governance

Figure 9: A model for data governance

Form Data Hub team	Inventory access to existing data sets	Define the business questions	Establish a target scope for data	Build the data set for the Data Hub	Run the analysis

Figure 10: Proof of concept (POC) to begin data analysis

Evaluate results of the analysis	Study the insights gained	Define the actions that can be taken	Define gaps, challenges seen in POC	Define data strategy and requirements

Implement the actions	Test the outcomes from actions taken
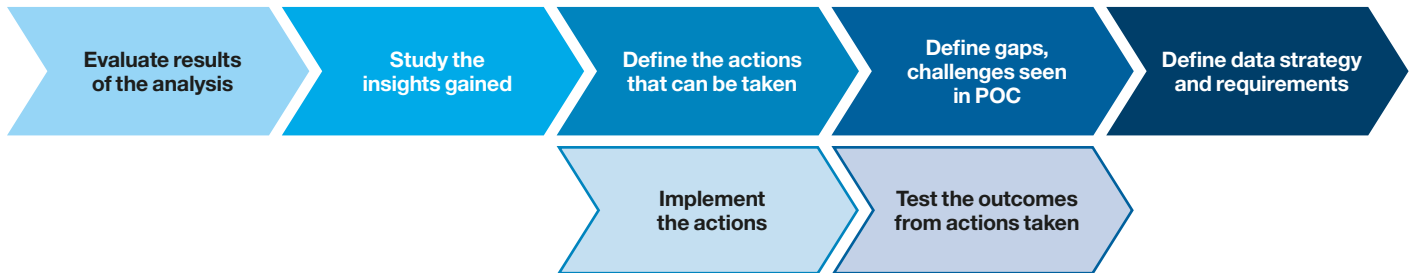
Figure 11: Proof of concept to evaluate data and put it into action for next steps

System of engagement
(outcome-based, data-informed timely actions)

Single view of the person

System of record
(master data, transactional data)
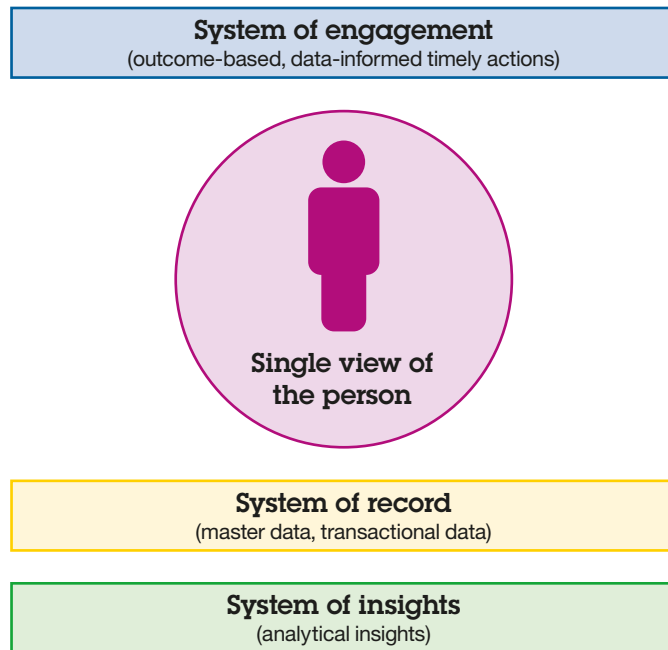
System of insights
(analytical insights)

Figure 12: Example of a strategically designed data system

Recommendation 12: Design for proactive and preventive actions

The City should shift its social services model from one that requires people to seek out programs (people-to-programs) to one that brings programs to the people (programs-to-people). Often, people in poverty do not know that certain programs exist. By identifying those who may be in need, Rochester will be able to take a more proactive and effective stance on poverty across the city.

Scope and expected outcomes

Scope
- Develop an initial set of social services and programs, criteria for measurable impact and agreed-upon metrics for each of the following target populations to help them access the opportunities they need to gain self-sufficiency:
    - **Marginally poor:** 200% to 300% of federal poverty line
    - **Near poor:** 100% to 200% of federal poverty line
    - **Extremely poor:** below federal poverty line
- Develop a specific set of "offerings" and measurable impact for children in poverty, based on the following age levels:
    - Birth to pre-kindergarten
    - Pre-kindergarten to kindergarten
    - Kindergarten to grade 12
- Use person-centric data and visibility, and implement a process across Data Hub members to proactively track and follow up with individuals
- Establish a set of prevention metrics for the City's social services system, showing an individual's entry and exit points — Data Hub members should agree on metrics and measure them to help better understand thresholds for when someone enters poverty and is able to reach self-sustainment
- Test the initial set of "offerings," measure data and learn from the results
- Perform a fit-gap analysis to identify constraints in the prevention processes and define actions to address them
- Develop a design and funding plan for the technology and infrastructure necessary for a system that enables a proactive approach to poverty, such as analysts, dashboards and data transformations
- Seek input from the collective group of City, county, top funders, health agencies, schools and colleges to define specific policies for effective preventive actions across different target populations
- Review funding models to ensure that proactive and preventive strategies have enough resources to be supported
- Ensure that insights from other efforts within the RMAPI are included to help make preventive strategies more effective

Expected outcomes
- A defined plan to help individuals exit poverty based on how close they are to achieving self-sufficiency
- Results that support the efficacy of coordinated and collaborative efforts to help individuals get out of poverty
- Reduction of poverty rates in Rochester
- A structure and process to help individuals stay out of poverty once they get out
- Reduction in the number of new people entering poverty
- A collaborative and coordinated system capable of taking proactive actions against poverty

Cost of inaction
- Poverty levels will continue to increase, with consistent increases in child poverty and the returning poor and newly poor.
- Spending increases will be necessary to address the recurring short-term needs of those in poverty, while not fixing the overall problem.
- Lack of preventive actions could lead to neighborhoods disappearing, falling into disrepair.
- Increase in inequality could lead to increased crime rates, making it unsafe for people to live in the city, causing people to leave.

Recommendation 12: Design for proactive and preventive actions (continued)

Proposed owner and stakeholders	Suggested resources needed
Owner: Mayor **Stakeholders:** • All the agencies and providers participating in the Data Hub • Citizens of the city	**People** • Data governance team • Funding plan for enabling technology and tools • Define roles and processes for proactive tracking of and follow-ups with individuals **Technology** To be determined based on a strategic plan, which needs to be built after initial steps in the first six months **Cost estimate:** • Investment to develop plan: Low • Investment in technology and programs: Low to high
Dependencies	**Key milestones, activities and time frame**
• Data Hub is established. • Data governance and team are in place to analyze trends and provide actionable insights for poverty prevention. • KPIs exist to measure impact of prevention. • Ability to identify target audiences using common data on the individuals is established. • Ability to identify a cumulative set of programs with measurable benefits for and impact on the target audience is established. • Fit-gap analysis to determine long-term funding that may be required specifically to address preventive actions. • Ability to gain a person-centric view of those in poverty is established.	**Short term:** • Design initial set of offerings, such as child care, health care and job training programs, for targeted population • Data Hub members agree on and establish poverty prevention metrics **Medium term to long term:** • Test outcomes from the initial set of offerings to learn from the data • Perform a fit-gap analysis to identify constraints of poverty-prevention processes • Create new policies focused on prevention • Develop a funding plan to help prevent poverty in addition to plans that address existing poverty

Recommendation 13: Establish a single view of the person

The current structure and execution of service providers should be redesigned around serving the individual in need. A single view of the person is critical to supporting the recommendations in this report and will be a game changer in helping the City of Rochester transform its approach to poverty.

Scope and expected outcomes

Scope

- People in need rely on numerous social services from government agencies and nonprofit service providers. Delivering these services in a cohesive way involves uniting a diverse base of people, processes, systems and providers.
- To make a significant impact on the poverty issue, the City, county, agencies and providers collectively need to put the person being served at the center of the overall social services support system. To do that, these groups need to redesign their current systems, which are siloed and use program-based information, and transform them into systems that focus on the person being served and the various services being provided.
- The first step to bridging the disconnect between various providers and the information they have involves creating and maintaining a single view of each person (see Figure 13). This integrated view would allow all providers, information systems and service delivery processes to share accurate and consistent data. This step will have a direct impact on the quality of services that citizens receive, from social security to building permits to child welfare programs.
- The primary objective of this recommendation is to achieve a unified or 360-degree view of the person being served. This requires connecting independent data sources, identifying common relationships and presenting accurate information to deliver the intended service or benefit.
- To collaborate and deliver impactful services, agencies and service providers need access to reliable and accurate data every step of the way, from program implementation to service delivery. This person-centric model should effectively manage, unlock and transform information through the right people, processes and technology. This information should be readily available internally and externally to effectively meet an individual's needs and collectively make a significant impact to reduce poverty.
- A person-centric model (see Figure 14) can help agencies and service providers do the following:
  - Understand the person's needs, bundle services and benefits to enable real outcomes, monitor progress and track individual achievements and outcomes
  - Offer complete service at the point of contact between the person and the people, processes and technology involved in anti-poverty efforts, thereby reducing redundancies
  - Create and use a master record for each person across organizations, programs, applications and touch points to promote greater consistency and visibility across all programs, making it easier for case workers to provide knowledgeable service
  - Capture an individual's information once and organize/share across the Data Hub to better serve the person while adhering to privacy standards — system can request an individual's consent to share and use their information
  - Unite services through extensive collaboration and partnership among service providers and agencies to create a collective impact on an individual's outcomes
  - Establish a proactive service model that reuses information to identify applicable services and benefits, allowing a more targeted approach to help persons in need access the services they're entitled to but may not know about

Expected outcomes

Agencies and providers should be able to achieve the following:

- Monitor and track the results and outcomes of provided services
- Build an individualized plan for child/family to reach self-sufficiency levels
- Make referrals and perform hand-offs based on directory of services and providers
- Improve program integrity using the latest and most accurate information
- Provide insights to make informed decisions that accelerate and improve benefit delivery
- Offer persons in need access to their personalized government accounts to review and update their information, as well as apply for services, benefits and more
- Equip call center agents and case workers with quick access to the individual information they need to provide personalized help/support

Cost of inaction

- Continuous increase in poverty levels with consistent increases in child poverty and the returning poor and newly poor
- Spending increases will be necessary to address the recurring short-term needs of those in poverty, while not fixing the overall problem
- Lack of preventive actions could lead to neighborhoods disappearing, falling into disrepair
- Increase in inequality could lead to increased crime rates, making it unsafe for people to live in the city, causing people to leave

Recommendation 13: Establish a single view of the person (continued)

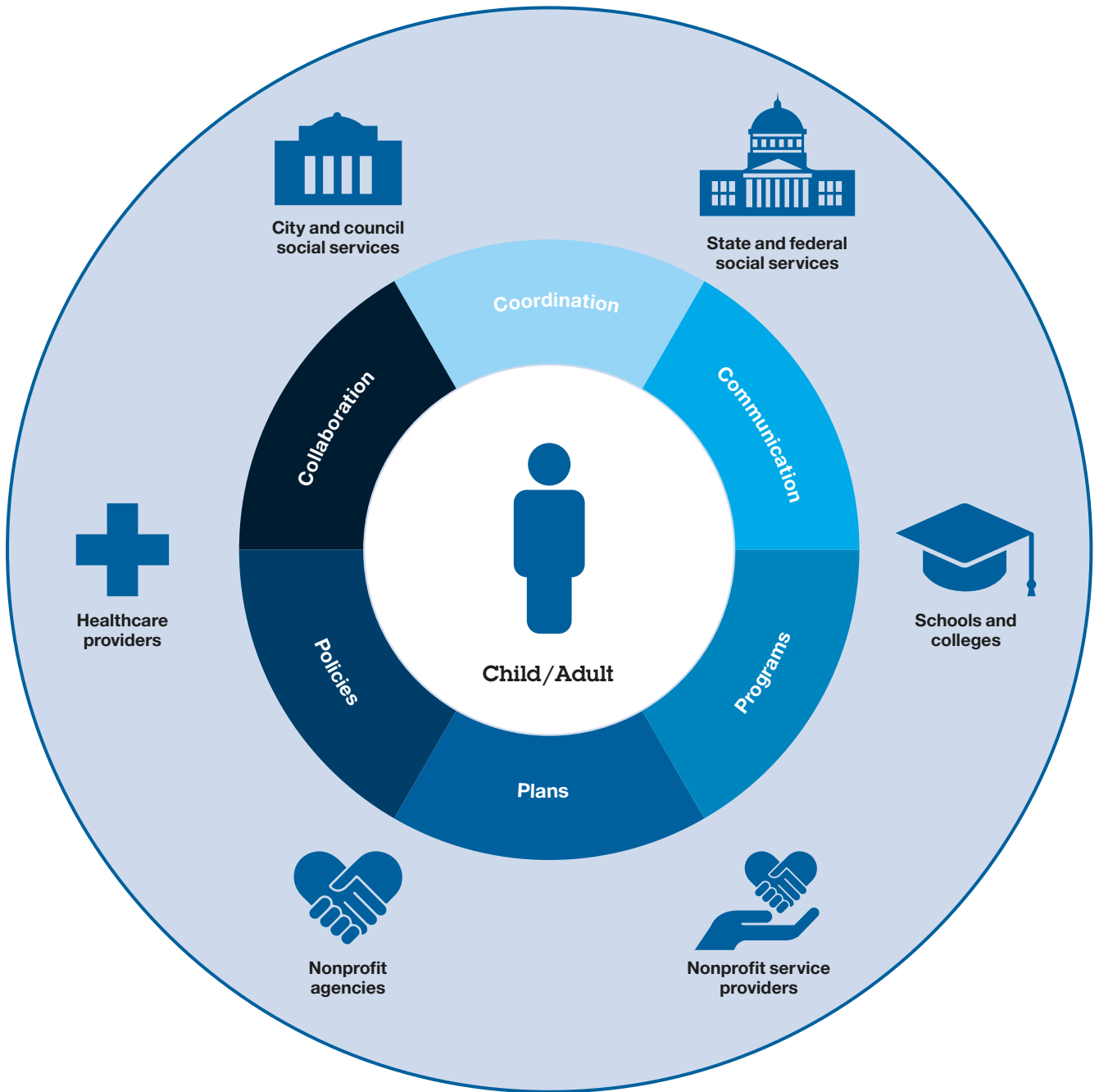| Proposed owner and stakeholders	Suggested resources needed
Owner: Mayor **Stakeholders:** • All the agencies and providers participating in the Data Hub • Citizens of the city	**People** To be determined after Data Hub proof of concept and other initial steps in the first six months **Technology** • Master data management (MDM) • Business intelligence (BI) • Analytics solutions • Data integration solutions • Data quality/hygiene solutions • Data warehousing and dashboards **Cost estimate:** High
Dependencies	**Key milestones, activities and time frame**
For short-term milestones • A number of groups must be willing to share their data • Availability of data sets provided to analytics team **For long-term milestones** Direction and funding of resources and technology to redesign the existing system to a person-centric model	**Short term:** • Bring existing data sets together to reflect a person-centric model • Define the critical set of questions for data analysis based on the RMAPI objectives **Medium term:** Develop strategy, requirements and plans to enable a person-centric model for social services systems **Long term** • Review strategy and make changes as required to position for upcoming challenges and opportunities • Review and utilize new technology • Adapt systems and processes

Figure 13: A model providing a single view of the person

Design

Power of information

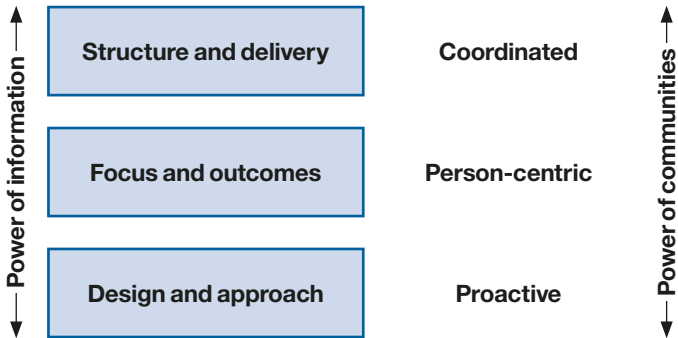| Structure and delivery | Coordinated |
| Focus and outcomes | Person-centric |
| Design and approach | Proactive |

Power of communities

Figure 14: Design for an effective system that delivers a single view of the person

Capabilities

- 360-degree view of the person
- Associated demographic and transactional information
- Trusted source of data – high qaulity/maintained
- Data-informed insights for decison-making
- Allows for preventative intervention methods
- Monitoring and tracking of results and outcomes

Process

- Coordinated services based on individual needs
- Alignment of programs to achieve self-sufficiency
- Personal relationship and case management
- Improved process performance and efficiencies
- Consistent experience at every touch point
- Programs-to-people rather than people-to-programs

Enablers

- Single, unique authoritative record of person
- Simplified data model
- Data-quality processes and tools
- Common outcome-based measurements
- Data standards, policies and rules
- Analytical dashboard

Figure 15: Highlights of a person-centric view

5. Conclusion

Rochester faces a significant challenge as a growing portion of its population experiences poverty. With some of the worst poverty statistics in the country, the City must act with urgency to transform its approach across processes, people and tools in order to achieve the goals outlined by the RMAPI.

One challenge the City faces is that its system of social programs and support is fragmented. While these programs provide an extensive range of services, there are overlaps and gaps in service delivery and outcomes. These overlaps create inefficiency and unnecessary expenses. At the same time, gaps cause services to be disjointed and inevitably lead to people becoming lost in the system or simply choosing to opt out.

Another challenge for the City is that its current provider system is program-oriented rather than outcome-focused. This compounds the issue of fragmentation, as good outcomes for the program do not necessarily result in good outcomes for people. This creates a cycle in which activities and services are designed to react to issues that arise, rather than developing strategies to prevent issues from arising in the first place.

Rochester should consider the unrealized potential of its communities and how they can create a system of social support. There is a big opportunity for the City to engage its communities and neighborhoods and explore idea generation, collaboration and broader networks that could contribute to reducing poverty. Elevating the community through healing, engagement and development activities can lead to benefits for all citizens.

Achieving many of these shifts depends on the City's ability to unlock insights from the wealth of data it has available. Participants funding and delivering anti-poverty initiatives must change how they collate, access and maintain data, and they must treat this data as an asset. Being able to access reliable, accurate data across programs and services will help create insights that drive better decisions and preventive actions to help reduce poverty.

Agencies and providers need to shift from a focus on programs to a focus on the individual, gaining a 360-degree view of people in need and aligning service delivery with those needs to build an integrated experience. This person-centric approach, along with outcome-focused metrics, would give agencies and providers a common understanding of the impact they have, helping them focus their resources to drive the greatest benefits.

Meanwhile, programs should work to encourage participation, collaboration and engagement among the community. Programs can use a combination of incentives and a robust communications strategy get more people involved in efforts to reduce poverty.

These recommendations require short-, medium- and long-term actions. Effective governance is key to helping the City maintain momentum, clarity, focus and accountability as its efforts progress over time.

The City should start implementing these recommendations now and can expect to see incremental outcomes moving forward, with early results stemming from recommendations around data, measurement, neighborhood leadership and communications.

These recommendations were created to support the RMAPI journey. Throughout this journey, the City will gain insights and knowledge that can help steer any adjustments that need to be made. Commitment and persistence are key to helping Rochester sustain its efforts over the 15-year program so the City can achieve its goals.

6. Appendix

A. Acknowledgments

Leadership
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Danny Wegman
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City/County
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Chief Ciminelli
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Robert Scanlon
Loretta Scott
Gregory Sheldon
Tony Sutera
Amy Ventura

B. Team biographies

Alice Sidhu
Delivery Project Executive
IBM Global Process Services
Australia

Andrew Bewick
General Manager
Defense
Australia

Alice Sidhu is an experienced commercial practitioner and senior leader with more than 20 years in procurement, program and general business roles. Sidhu joined IBM as a Delivery Executive in March 2012. She is responsible for delivering procurement solutions across $1 billion of spend categories, purchasing operations initiatives and procure-to-pay services to Telstra.

Sidhu's career includes experience in the retail, IT, mining and telecommunications industries. She has worked in a number of different roles and led large teams focused on value creation and innovation. She also had the opportunity to work in global roles for organizations, such as HP and Orica, focusing on change, governance, innovation and transformation.

Sidhu has expertise in both the private and public sector. She spent four years in the Victorian Department of Treasury and Finance as the Director of Procurement. In this role, Sidhu led a team responsible for government procurement across a $10 billion spend, driving communication, policy development and strategic review.

Sidhu has a Bachelor of Laws and Bachelor of Arts (Honors). She has also held a number of board positions, serving on the Victorian Government Purchasing Board and Health Purchasing Victoria. She is a member of the LaTrobe University Human Ethics Committee and Chair of the RMIT Masters of Procurement program.

Andrew Bewick has been the General Manager, Defense, for IBM since 2010, responsible for the commercial relationship of IBM with the Australian Department of Defence. This has been a period of extensive transformation at the Department of Defence as they move to a fifth-generation fighting force. Prior to his role in the Defense account, Bewick held a range of management roles focused largely on the federal government, including information management, networking and infrastructure support.

In 1988, Bewick was commissioned as an Officer in the Royal Australian Navy. He served for twelve years in a variety of operational roles, including an operational deployment to the Persian Gulf in 1996. He was subsequently appointed to the role of Military Escort Officer to the Minister for Defence in 1997.

Bewick holds two degrees from the University of New South Wales, a Bachelor's degree in engineering and a Master's degree in engineering science. He is married to Lea, and they have three children.

Sunita Menon
**Director of Strategy, Governance
and Analytics
IBM Client Master Data
USA**

Sunita Menon is the IBM Executive and Global Leader of the client master data management division. In this role, she leads the strategy, governance and analytics for client master data. She designed and implemented the current global data governance structure and leadership model that helps enable IBM to provide an aggregated view of the client for operational processes to drive client analytics and insights.

Menon joined IBM India as the Country Manager, Market Intelligence, in 1995 after several sales and marketing roles in the Indian IT industry. For IBM India, she led efforts behind demand generation, marketing analytic engines, market research and CRM processes. For the last 17 years, Menon has held management and leadership roles at the IBM Corporate Headquarters divisions in the USA. She leads cross-cultural and global teams focused on transforming enterprise processes, deriving business insights from analytics and simplifying IBM enterprise data domains for customer, product, price and business intelligence.

Menon holds a Bachelor's degree in economics from Bangalore University, India, and an Executive MBA from University of Connecticut, USA. She has received several recognition and professional achievement awards, including a Best People Manager Award for her role in the CIO division. Menon mentors IBM professionals in career development planning. She participates in diversity and business resource groups in IBM, as well as in her community, helping to promote cultural awareness and digital literacy. She enjoys singing, reading and philosophical musings. Menon lives in Stamford, Connecticut, with her husband and two children.

Walter Szyperski
**Service Area Lead
IBM Oracle CX
USA**

Walter Szyperski is the Service Area Lead for the IBM Oracle CX and Cúram capabilities in the public sector. He manages a large and growing team of consulting professionals dedicated to the sales and delivery of technology innovations and business solutions to federal, state, local and healthcare clients. Szyperski also serves as the delivery executive for client transformation programs across the United States.

Szyperski is an Information Technology Executive with more than 26 years of experience helping public and private sector organizations transform their processes, organizational structure and technology in order to become a more effective, efficient and customer- and citizen-centric business operation.

Szyperski earned his Bachelor of Science degree in information systems management from Buffalo State College and is a certified Project Management Professional.

Martin Laird
**Senior Program Manager
IBM Corporate Citizenship
and Corporate Affairs
USA**

Martin Laird serves as Senior Program Manager for IBM Corporate Citizenship and Corporate Affairs and is a member of the Business Integration Team. In this role, he is responsible for helping IBM achieve corporate citizenship preeminence by effectively linking business strategies to citizenship investments across the globe.

Laird plays a leading role in the IBM Impact Grants program, through which $10 million in consulting, services and software are donated annually to help educational and not-for-profit organizations enhance their operations, capacity building and technology adoption. Additionally, he oversees the regional grant making, employee volunteer programs and CR initiatives of IBM in New Jersey and New York state. Laird has 15 years of experience with corporate affairs and community relations and 10 years of experience working with cloud and data analytics solutions.

C. Cause-and-effect diagram

This cause-and-effect diagram illustrates how these recommendations work together and support the City's social services system.

The ultimate goal of the RMAPI is to improve people's lives, reduce poverty and reduce the costs associated with poverty. Solid arrows in this diagram indicate direct impact, while dashed arrows connect instances of secondary impact.

This is a first-iteration diagram that could be developed into a more comprehensive mathematical model to help create a more complete understanding of how the recommendations and social services system work together.
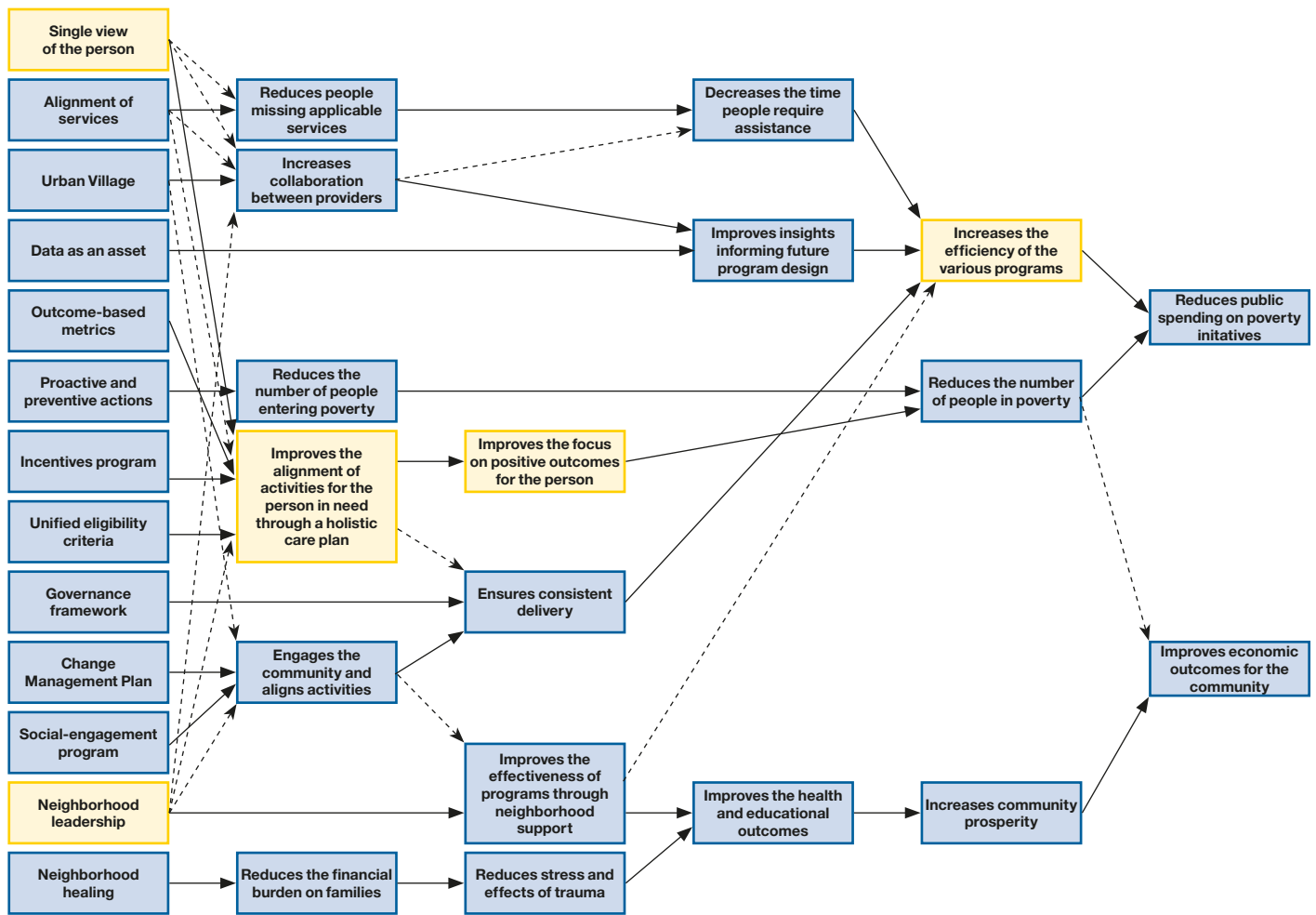
Figure 16: Cause-and-effect diagram of recommendations

D. Design principles and capabilities

The following table identifies key design principles and capabilities that comprise the RMAPI system, including its technical capabilities.

Design principle	Description
Accountability	Ownership of role, responsibility and measurability for services, collaboration and outcomes
Analytics and predictive analytics	Harnessing the data available to analyze program effectiveness, target new programs and identify patterns to proactively support individuals from falling into poverty
Assessment and eligibility	Using a scripted set of questions that branch directionally based on responses, and applying the rules of determination (for example, 165% of poverty level for child care), a holistic set of services is identified across local, state and federal programs
Audit tracking and reporting	Providing a record (trail) of the data a user is accessing in the system on individuals and their cases
Case management	Encompassing the elements of an individual (for example, identity, relationships, needs, eligibility, programs, referrals and outcomes) to effectively coordinate services
Collaboration	Organizations (government, nongovernmental, nonprofits, individuals and families) working together effectively
Community engagement	Localizing services and building a safe, affordable environment for families to raise their children
Contract management	Funding sources, both government organizations and NGOs, establish contracts with service providers to create and maintain programs (for example, day care, job training, emergency family assistance, youth activities and so on)
Cultural sensitivity	Acknowledging and taking into account the cultural factors that influence the need for and success of certain programs
Data-driven	A data-rich solution that helps the RMAPI participants address reactive measures while moving toward preventive models
Data governance	Managing the policies, standards and methods for sharing data across organizations and systems
Document management	The ability to digitize paper forms and evidence, then link them electronically into a single case file
Disaster recovery and performance	Safety, medical and emergency needs — solution is considered mission critical and requires appropriate system redundancy and the right service levels to ensure system performance
Eligibility	Determining which programs and services an individual is able to receive — income level is typically a key factor
Evidence-based	Linking the documents/forms required to codify eligibility for services needed
Fit for purpose	Tools and technology that are pre-built to deliver required capabilities — commercial off-the-shelf (COTS) software is often categorized as fit for purpose
Geographic approach	Aligning providers and their services to accommodate individuals within walking distance or reasonable public transportation

Design principle	Description
Informed consent	Giving authorization to share personal information with organizations that provide services
Integrated model	Harmonizing the processes, rules and data required to deliver consistent, successful services
Master data management (MDM)	Establishing a "golden record" for an individual to help ensure effective service delivery when sharing data from multiple source systems
Mobility	The ability to work in either a connected or disconnected mode when out in the field using mobile devices (tablets and laptops)
No wrong door	No matter which service provider an individual contacts in the system, a holistic set of services is identified (assessed) and initiated (referred)
Operational reporting	Standardized reports related to contract performance, operational effectiveness and measureable outcomes
Outcome management	Identifying and tracking a series of outcomes with the ultimate goal of climbing out of poverty and achieving self-sustainment (approximately 275% to 330% of the poverty level) — when aligned, these outcomes should be measured against the success of their associated programs and service providers
Person-centric application	Establishing the individual as the focal point from which data is collected, to whom services are provided and for whom outcomes are measured
Predictive	Identify new or existing programs and services to help children and families from entering or reentering poverty
Provider management	A way to identify the best provider choice for an individual (for example, child care near job location), referring those services and monitoring progress against corresponding outcomes
Repeatable	Consistent rules, processes and methods for providing services
Scalability	A system that can grow technically and functionally to accommodate the user community and those being served
System interfaces	The technical ability for systems to securely share data electronically
Trusted system	Embedding security, such as role-based user access, in a system so that users access only the data needed to perform their job

E. Extension of Recommendation 2: Shift to outcome-based metrics

A greater number of nongovernmental agencies and providers are transitioning to outcome-based metrics to understand the impact of their programs and to help them make decisions on where to allocate time, effort and money.

Most current providers in the City of Rochester are reporting on their activity rather than the outcome. As a result, understanding the benefit the City may have realized from a particular program or intervention becomes difficult. Reporting on activities rather than outcomes also limits the ability of providers to celebrate successes, as they must rely on anecdotal reference rather than data-driven insights.

Examples of current activity-based metrics include the following:
- School or college enrollment numbers
- Completion of a job training program
- Number of participants in a program

These metrics are helpful in making practical administrative decisions and should continue to be monitored to help plan staffing and timetables. These metrics, however, do not capture critical information that reflects the impact of the program, which includes the following:
- How many students enrolled in a school or college actually graduated?
- Was the graduate or participant in the job-training program able to secure a job?
- Did program participants experience benefits as a result of the knowledge or skills they obtained during the program?

Figure 17 shows a proposed outcome-based measurement model for employment from the International Labour Organization's call for proposal in Employment in 2015.

Understanding an individual's employment outcomes, including job tenure, earnings and type of work, provides tremendous insight into whether the investment into skills developing literacy, business understanding or technical knowledge helped create the foundation an individual needed to succeed in the employment market.
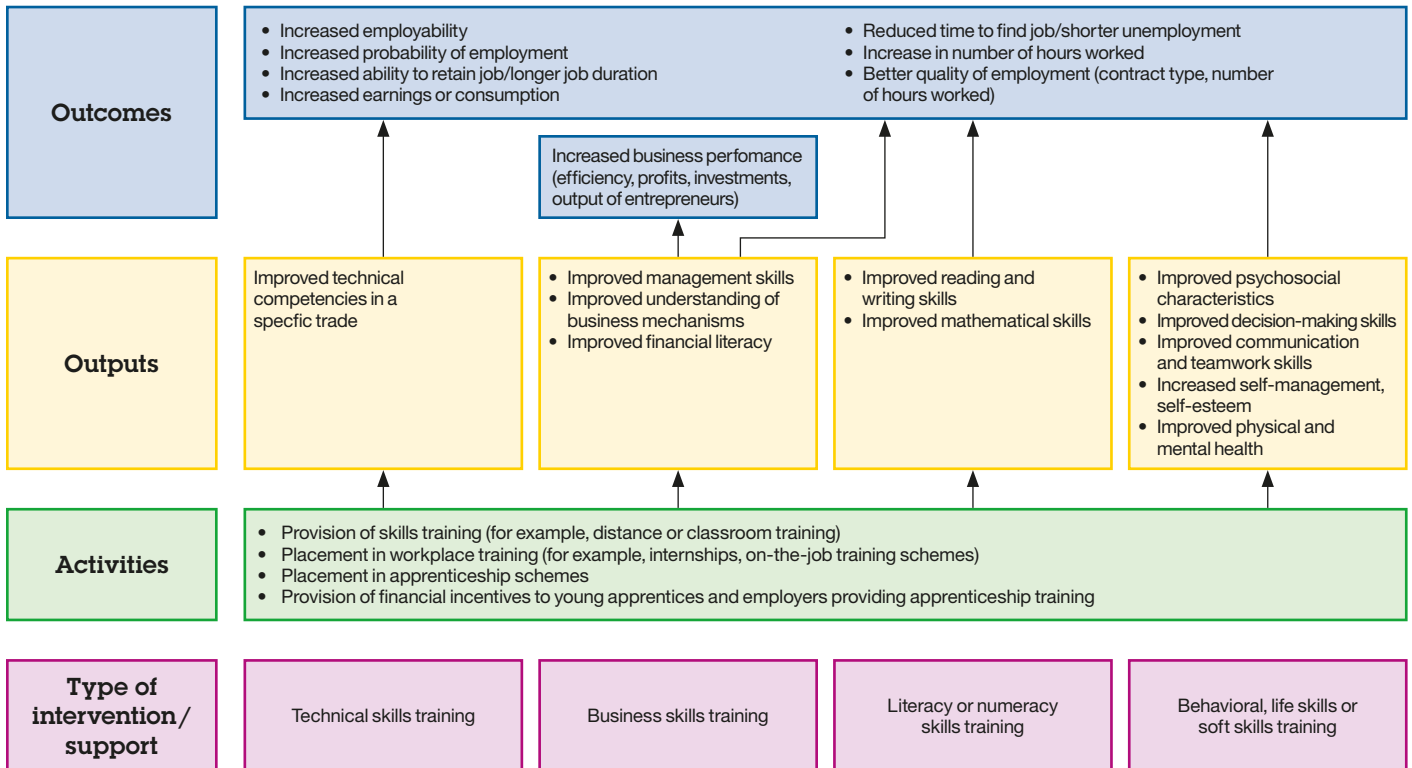

Figure 17: An outcome-based model by the International Labour Organization[30]

As the City's measurement reporting and analytics capabilities become mature, it should start considering the next phase of outcome-based measurements, which involves making connections beyond an activity and its immediate outcome. The aspiration should be to measure outcomes at their furthest level and assess the progressive economic and/or social impact they have on the people they are designed to assist.

Figure 18 demonstrates a project on affordable housing and the impact that it will have on safety and student success in school. The City has the data and understanding to make these connections in discussions today and should be able to achieve this level of insight on a much larger scale after implementing the team's recommendations.

Implementation considerations

This shift to outcome-based metrics will be challenging both technically and culturally, but there are good resources in place to help. The City can leverage the learning and experience of others, such as the building industry and sciences[31], to accelerate their transition.

The City has rich data available that will help it develop a clear snapshot of each of its programs, how programs are measured and what metrics they report. Success depends on completion of Recommendation 11 to an extent but should not prevent the City from getting started on driving toward an outcome-based approach. The working council proposed in Recommendation 2 should build flexibility into its plans to allow for course correction and refinements as time goes on.

The cultural shift necessary will pose a greater challenge to the City. Transitioning to outcome-based metrics will require all funders and service providers to revise current practices that are well understood by staff performing the day-to-day functions. This change will cause anxiety for both staff and organizations, as it creates a different level of accountability.

The engagement of staff and key individuals across affected organizations will be critical to implementing outcome-based metrics. They will need to understand what shifts are happening and the reason behind these shifts. More important, they will need to understand how measuring outcomes aligns with the organization's vision and how this shift contributes to the success of the individual they are serving. A communication and change process will be critical to ensure this recommendation can be adopted effectively.
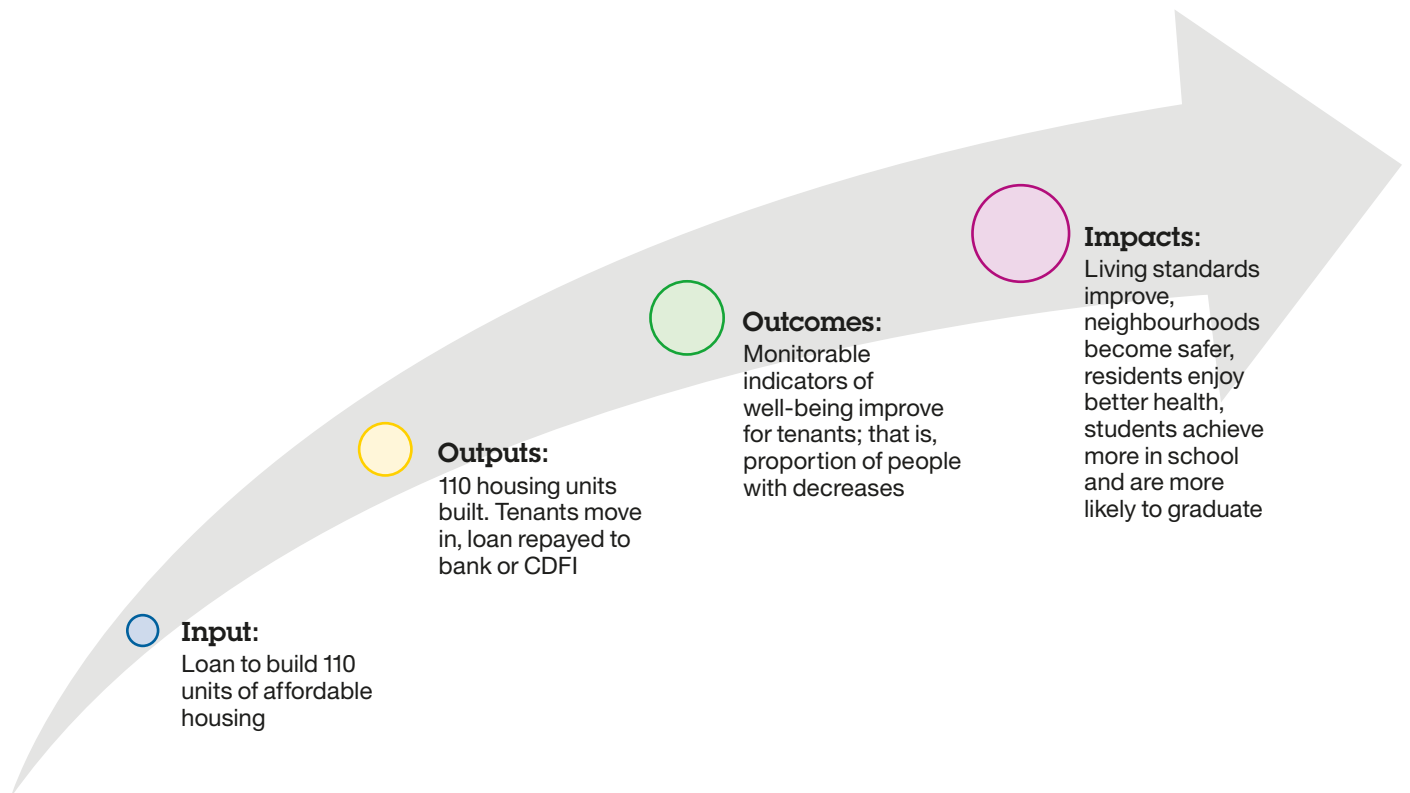

Input:
Loan to build 110 units of affordable housing

Outputs:
110 housing units built. Tenants move in, loan repaid to bank or CDFI

Outcomes:
Monitorable indicators of well-being improve for tenants; that is, proportion of people with decreases

Impacts:
Living standards improve, neighbourhoods become safer, residents enjoy better health, students achieve more in school and are more likely to graduate

Figure 18: Social impact progression in affordable housing[32]

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