Building Healthy Communities: A Literacy Movement for London

Presented by Students in Sociology 3326G: Building Healthy Communities

at King's University College in Collaboration with the

City of London's Child & Youth Network and City Studio

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The following is a list of the committees and the students who were involved in putting together the policy report for our class

- *Literature Review*
  - Esraa Mohammed
  - Trenton Barkhouse
  - Lisa Newell
  - Kaila Broadbent
  - Taylor Cox
  - Corinna Floyd
- *Policy Context*
  - Caleb Bere
  - Ana Beslija
  - Sadie Gibson
- *Community Profile*
  - John Watson
  - Yasmine Salim
  - Mohamed Ramzanali
  - Rani Kareem
  - Oluwajimi Bali
- *Environmental Scan*
  - Madison Loder
  - Sarah Suddes
- *Quantitative Analysis*
  - Lisa Newell
  - Kaila Broadbent
- *Qualitative Analysis*
  - Nika Maklakova
  - Sarah Natour
  - Madison Hope
  - Michelle Goncalves
  - Chelsea Jeffery
  - Gabrielle Grimes
- *Literacy Strategy*
  - Ana Beslija
  - John Watson
  - Caleb Bere
  - Trenton Barkhouse
  - Sadie Gibson
- *Literacy Strategy – Work Plan*
  - Madison Loder
  - Esraa Mohammed
  - Kaila Broadbent

- *Recognition must also be given to the students on these committees as well*
  - *Policy Editors*
    - Sarah Suddes
    - Lisa Newell
  - *Presenters for the Undergraduate Research Conference*
    - Sarah Natour
    - Nika Maklakova
    - Gabrielle Grimes
    - Chelsea Jeffery
    - Michelle Goncalves
    - Madison Hope
  - *Hubbub poster creators and presenters*
    - Yasmine Salim
    - Rani Kareem
    - Mohamed Ramzanali
    - Oluwajimi Bali

INTRODUCTION

In 2007 the City of London completed an assessment on literacy rates in London, Ontario. The findings concluded that literacy rates in our community were alarmingly low with the most problematic results involving children and youth. One example showed that more than one in four children entering grade one did not have the proper literacy skills they needed to learn effectively (Child & Youth Network 2020). Low literacy at such a young age has the potential to stunt one's ability to achieve provincial standards, participate in the Ontario Secondary School literacy test, and to complete high school (Child & Youth Network 2020). Since 2007 when the original statistics were collected there have been no improvements to literacy rates in London, despite previous efforts to address the problem. Low literacy in London is a key issue to focus on because it can be detrimental to not only children's growth and healthy development but also future educational attainments. Therefore, research and significant improvements are required to fully understand and address this critical issue within our community.

To begin this task, Jennifer Smith, Policy Specialist with London's Child and Youth Network (CYN) collaborated with students at King's University College in Dr. Jinette Comeau's class *SOC3326: Building Healthy Communities* to compile a Literacy Strategy that would target the declining literacy rates in London. The strategy focused on a target age group of children 0 to 6 years of age to gage if they had acquired that adequate literacy skills that they needed to be ready to attend school. Without proficient literacy skills, individuals are not able to express and understand ideas, make sound decisions, problem solve, attain their goals, and fully participate within the community of London (Child & Youth Network 2020). Therefore, it is incredibly important that our class looked at numerous factors, especially the Social Determinants of Health, the readily available resources in the communities, and the high-risk neighbourhoods that would have a direct effect on a child's literacy attainment.

The objective of this initiative was to focus on Health Care Providers (HCP) and assess if there were ways to encourage them to participate in a literacy strategy that would help to combat the declining literacy rates in our city. Jennifer suggested that HCP's were integral in this strategy as they are the first point of contact with children and their families and can play a critical role in offering ideas and suggestions for a child's development.

In order to best approach the project, the class was split into eight committees that were each given a specific task to complete. The committees were as follows, Literature Review, Policy Context, Community Profile, Environmental Scan, Qualitative Analysis, Quantitative Analysis, Literacy Strategy, and Literacy Strategy Work Plan. The teams worked in tandem to adequately identify numerous risk factors that affect the population in London, as well as identify high risk areas that needed attention. There were numerous steps that were taken to obtain the information that was needed to offer suggestions on how to improve literacy rates in London, and each of the committees compiled in-depth and well-structured reports to present their respective findings.

EXECUTIVE SUMMARY

This proposed policy report was done in partnerships with students at King's University College, Jennifer Smith, Policy Specialist at the Child and Youth Network (CYN), and City Studio. The purpose of this report is to assess the feasibility of engaging health care providers and other stakeholders in a strategy to improve literacy rates as well as child health and well-being in our community. This report focused on a target age group of children between 0 and 6 years of age, and the likelihood that they would have learned the appropriate skills to be ready to attend school.

Our process and methodology were multifaceted and lead by eight student committees. This work included 1) a literature review of theories related to child development, literacy as a social determinant of health, and best practices associated with evidence-based literacy programs; 2) an assessment of the literacy needs of children in London through a community profile and environmental scan of available literacy resources; 3) an empirical evaluation of the family level characteristics associated with literacy development and the extent to which literacy is a social determinant of health; 4) consultations with families, health care providers, and community leaders; and 4) and evaluation of the policy context and health care context relevant to literacy and child development. This work informed our proposed literacy strategy and a workplan for implementing it.

An important aspect of any research project is to examine the current literature that has been published on a given topic. The Literature Review committee focused on examining important pieces of research that indicated that the most effective interventions in childhood literacy resulted from the environment that the child resides in. Next, the Policy Context committee looked into various aspects that contribute to the success or failure of community wide interventions. Due to the influence the municipal government has on education, it was concluded that the primary focus should be on educational institutions, with health care playing a secondary role. An important finding within the Policy Context was that the health care system is overburdened and there are not enough primary care physicians to meet the needs of London residents. This fact alone makes it difficult to present a strategy that would place further constraints on an already strained health care system in London. Another important factor that was discussed was that many primary care physicians work in a for-profit model with little incentive to promote literacy in their practice.

The work done by the Community Profile and the Environmental Scan committees further supported a shift in focus but did not eliminate the possible engagement of healthcare providers. The shift in focus was to put more emphasis into identifying high-risk neighbourhoods and the availability of literacy resources for our target age group. The Environmental Scan focused on Family Centres across the city and concluded that they are a critical hub in the community that house many important resources which is discussed in depth in the environmental scan section of this report. Within the Family Centres there is a Community Connector who is the first point of contact for families entering the Centres. They play a critical role in bridging the gap between families and the resources that each family may need but may not understand how to acquire.

Another key aspect of research is gathering data. This was done through a quantitative analysis that used data from Statistics Canada's National Longitudinal Survey of Children and Youth and Ontario Child Health Study, as well as a qualitative analysis that interviewed health care providers and community leaders with an interest in childhood literacy as well as parents who used the Family Centres programs for their children. This gave us a deeper understanding of how parents who used Family Centres felt about their child's literacy needs as well as a first-hand account from key individuals who understand the Centres and the literacy issues from a municipal perspective. It was important to gather information of the interventions and resources that are lacking in the City of London. From there we were able to pull together data which looked at numerous factors that showed high risk areas that have a lack of resources available within them.

Finally, after the information from the various committees was compiled, a Literacy Strategy and a Work Plan were developed. The main components of the strategy and plan involve using existing resources, building relationships, and involving the community in combating the literacy crisis in the City of London. The work plan focused on bringing together high school students, post-secondary students, and Family Centres in a co-op program to help combat literacy issues in London. After incubation, this co-op program could be scaled up to integrate the Middlesex-London Health Unit. There are numerous recommendations that have been made in the Literacy Strategy and the subsequent Work Plan to help suggest ways to bring the plan to fruition.

LITERATURE REVIEW

OBJECTIVE

The objective of the Literature Review was to identify key sources of empirically sound literature that would provide support to our overall objective of combating low literacy rates in London. After collecting the appropriate information, and compiling it, the committee was able to gain a better understanding of the research that has been conducted globally to address similar literacy issues. The information gave the team a clearer perspective on approaches that have had a direct impact on issues that are facing children and their families within our target age group. This research was also able to suggest strategies and initiatives that have been put forth in other countries and their success rate. The literature also discusses the importance of topics such as the life-course theory and the social determinants of health, while also pointing out the importance of the type of environment a child is subjected to daily. It discusses the types of interactions a child may have with family and friends (known as the concept of linked lives), that have a direct influence on how the child develops throughout their life course.

Developing Child

The healthy development of a child is crucial in preparing them for future success. The development of one's life can be explained through what is known as the life-course theory, which analyses the discourse of one's life. Through the duration of an individual's existence their life unfolds in a trajectory, which acts as a predisposed pathway that unfolds over the course of their life (George 2013). Important aspects relating to key moments in human development are often referred to as critical periods. More elaborately, critical periods can be explained as stages in life where the brain is particularly sensitive to environmental influences. One critical period of a child's life is from birth to age four because at this stage neuron connections are being made to sculpt the brain (Maggi et al 2010). It is therefore argued that if a child does not reach certain milestones by a specific age, their development will suffer as their brain will not be as developed as it should be (George 2013). For example, if a child does not learn how to read before they enter the school system they will fall behind, and their literacy skills will not be developed to where they should be. Not having the proper educational skills may result in a child being held back in school to help them catch up to where they should be academically, which can result in a turning point (George 2013). A turning point is a specific event that can manipulate the direction of a pre-existing trajectory. It is therefore extremely important to be aware of critical periods that a child may face and ensure that the proper development be made at those times, to avoid harmful turning points in the trajectory of a child's life.

It is also important to discuss the concept of linked lives, meaning that the lives of others that the child is surrounded by has a direct influence on their development. This is because individual lives are interdependent on others and are embedded socially, therefore making the environment an important aspect to consider in the healthy development of children (George 2013). Every possible outcome is affected by social networks. It has been discovered that the first year of a child's life is where the child is the most susceptible to settings, such as their environment (Maggi et al. 2010). Therefore, the healthy development of a child's brain is dependent on the quality of stimulation, support, nurturance, and the environment where the-child grows up as it is a fundamental determinant across all areas of the life course (Maggi et al. 2010).

Risk Factors and Cumulative Disadvantage

As determined by York University's 'Social Determinants of Health' conference, there are ten key social determinants of health impacting Canadians. The most notable being education, employment, housing, income and social exclusion (Raphael 2006). Each of these factors have the potential to negatively impact the health and development of children because the risk factors experienced by parent(s) can be transmitted intergenerationally from parent to child. If these foundational social determinants are lacking, the children experiencing them may not be given adequate resources, quality time, or the educational aids they need to succeed. In terms of literacy, it has been found that those who read at lower levels are 1-3 times more likely than those who read at higher levels to have adverse outcomes (Dewalt 2004). This illustrates the cycle of disadvantage. If a parent is unable to read adequately, then both the parent and the child will experience adverse outcomes such as low income or poor health. This disadvantage that the child then experiences may hinder their own literacy growth and development. This is what is known as cumulative disadvantage, which is used to explain the phenomenon of how disadvantage breeds more accumulation of disadvantage over the lifetime (Dannefer 2003). Thus, when examining this problem of literacy, it is essential that risk factors such as socio-economic status, education, employment and income be studied to fully grasp this complex issue impacting children in London, Ontario.

The Importance of the Environment

Bronfenbrenner's ecological systems theory explains how different environments influence human development through five different types of environments: microsystem, mesosystem, exo-system, macrosystem, and chronosystem (Paat 2013:954). The inner circle consists of immediate connections such as parents, followed by school and community where they learn social and cultural values. Each of these systems work together to produce a child's social environment. A disturbance in any of the circles causes a ripple effect in other areas of their life, such as school, relationships and development. This is extremely important because "a positive social environment with peers and family is a strong predictor for positive...outcomes" (Gandermann 2015:1850). Therefore, programs and services that address and create positive environments for families and children could positively impact multiple areas of life. If literacy at an early age is addressed and families are given the support that they need to create positive learning spaces, then children will be able to succeed in the various other aspects of life as well.

Evidence Based Programming

Literacy has been identified as being an important component to child development. As such, many programs and services have been created worldwide to help foster this critical skill. While there are numerous programs that are provided globally, not all of them are effective in improving or promoting literacy. For example, a study in Ireland focused on a 'Letterbox Club' which gives books to children and their families free of charge, in hopes to promote literacy in the home setting (Conolly et al. 2016). This study found that this book-gifting program was ineffective with no evidence of benefits to the children's literacy development, nor were there any substantial academic skills gained by using this program (Connolly, Winter, Mooney 2016). It is evident in this study that simply gifting parents' books does not achieve the desired goals of improving literacy.

A study done across Europe examined five separate programs which demonstrated that positive outcomes for families and their children require a more comprehensive and hands on approach. Each of these programs identified early intervention as an essential step in addressing the negative impact that inequalities have on children's development and wellbeing (Morrison et al. 2017). Each program saw success when they actively engaged and supported parents, so that parents could help in their child's development and learning (Morrison et al 2017). A program in Hungary saw great successes when they provided a comprehensive centre where parents could access social services, health care, psychologists and early years educators (Morrison et al. 2017). These centres provided the support that the parents could access social services, health care, psychologists and early years educators (Morrison et al. 2017). These centres provided the supports that parents needed to strengthen their own capacities and in turn their children's (Morrison et al. 2017). Using these programs aimed at support and education, parents across programs identified improvements in their children's learning skills, self- esteem, reading and vocabulary skills (Morrison et al. 2017). These studies illustrate the importance of a comprehensive program that centres on spaces where families can find support and resources to help them learn to be the key agents in their children's success. These types of programs have been successful in not only improving development and literacy, but also offsetting risks for families who may experience inequalities.

CONCLUSION

London Ontario's literacy problem is very troubling for not only the children and families experiencing this disadvantage, but also because of the cumulative impact on the community. It is important to address this problem at a young age to ensure that the cycle of disadvantage is interrupted in order to eliminate risk factors and promote literacy. A very important factor in promoting literacy and development is a positive environment.

The following sections: Policy Context, Community Profile, Environmental Scan, Quantitative Methods and Qualitative Methods will provide contextual information about the current situation regarding literacy in London. Each section will identify key risk factors and draw upon important information and results that have been collected as part of each section. Pulling together each of these important sections will be the literacy strategy, followed by the practical work plan to achieve this comprehensive goal of improving literacy in London Ontario.

POLICY CONTEXT

OBJECTIVE

The objective of the policy context was to provide a broad framework for understanding how public policy shapes health care practices to demonstrate the multidimensional complexity of implementing literacy programs through primary care physicians. As our class began assessing what needed to be done to make our project feasible, we collectively identified the need for a policy report which would address the wider political context when engaging with Jennifer Smith and our City of London partners. A policy report was necessary for showing the political landscape that shapes the efficacy and applicability of a municipal literacy strategy that engages health care practitioners as the primary advocates, while taking into consideration provincial and federal policy contexts and the disconnect between municipal and provincial health care policies. This policy report concludes that a literacy strategy that engages family health care practitioners, specifically primary care physicians (PCPs), under the current healthcare policy context would be difficult to enforce, regulate, and scale-up, making the quality and equity of such an initiative difficult to achieve. What our policy report did determine is that early childhood education policy is one area that municipalities do retain some level of control. This is a major reason why we recommend that our literacy strategy should be focused on the educational rather than the health care context.

There are a variety of factors that shape the health and well-being of individuals and they can be understood by exploring the political context that health policies are embedded in. In Canada, this broad political framework is based on the form of government referred to as the liberal welfare state (Bryant 2016). The Canadian liberal welfare state frames the structure and implementation of public policies (Bryant 2016; Miljan 2018; Raphael 2014). The welfare state was created in most democratic countries, including Canada, following World War II (WWII). Welfare refers to the belief that the government has a direct role in maintaining the well-being of all citizens, regardless of their socioeconomic status (Bryant 2016). As part of the post-WWII welfare state, public health care systems were developed that were based on a societal will to provide health care to those in need and not only to those who were able to pay (Bryant 2016).

Countries that are considered welfare states vary in how progressive they are concerning issues of social justice and equity and the importance they place on public issues such as housing, food security, employment and education (Bryant 2016). Liberal welfare states, such as Canada, are more likely to see health as an individual responsibility, rather than a public issue that the state is responsible for addressing. The reluctance to focus on the social determinants of health takes away responsibility of the state to ensure population health (Bryant 2016). Once the federal government determines what requires public attention rather than individual responsibility, policies are created to facilitate social assistance programs targeted towards segments of the population. In theory, the government intervenes in market operation to balance popular demands with business interests (Miljan 2018). However, this involvement is limited and conducted within the confines of the capitalist system and the interests of the corporate and business sector (Miljan 2018; Raphael 2014).

Increasingly, public officials are required to justify their spending and allocation of resources in business terms, with a focus on reducing costs and increasing profit, leaving little room for policy

decisions that are beneficial to the population (Glouberman and Millar 2003). While several governmental documents and reports have been produced that enforce health equity through a focus on social determinants of health, such as income, education, food security, housing, and childcare, among others, the focus on health care has been largely fragmented with health practitioners isolated in their private businesses with little public accountability (Miljan 2018; Smith et al. 2014; Snadden, Hanlon and MacLeod 2019). Neoliberal reforms that began in the 1970s have increasingly pushed Canada away from the welfare state model (Smith et al. 2014). This has resulted in an increased individualistic mentality and a rejection of the belief that the public has a responsibility to support Canadian citizens (Miljan 2018; Raphael 2014; Smith et al. 2014).

Federalism, Regionalization, and the Universality of Health Care

The complexity of the Canadian health care system has led scholars such as Lewis (2015) to describe it as 'a genuine enigma'. These complexities begin with the fact that it was implemented through federal legislation that oversees the funding aspect, yet administration and delivery of health care is the responsibility of provincial governments (Lewis 2015; Miljan 2018). This split between the funding and provision of care stands in stark contrast with other welfare states including the United Kingdom (UK) (Martin et al. 2018). The gradual shrinking of the federal role in the healthcare system has led many to conclude that there is, in fact, a national health care system (Lewis 2015:497). This is further complicated by the fact that each provincial government has the authority to determine exactly how much they are willing to allocate for public health services and their decision changes depending on the governing party's ideology (Lewis 2015). The social determinants of health are largely overlooked within the scope of health care because they are seen as part of social care and are fragmented into separate issues that require separate organizational oversight (Lewis 2015; Miljan 2018). This fragmentation of jurisdiction is well illustrated when contrasting housing and health. Housing is the jurisdiction of the Ministry of Community and Social Services, whereas health is the jurisdiction of the Ministry of Health and Long-Term Care (MHLTC). The lack of a holistic jurisdiction and the confinement of health care policy within the MHLTC highlights the lack of oversight on health care policy implementation and administration.

Although the Canadian health care system is labelled as universal, it lacks a nationally coordinated plan to address health inequalities (Glouberman and Millar 2003; Miljan 2018; Raphael and Sayani 2019). Federal statutes such as the *Medical Care Act, 1966,* and the *Canada Health Act, 1984,* determine the rules that provinces have to follow in order to receive federal funding, yet there is no federal mandate which holds the government accountable for the equitable distribution of public health services (Gilliland et al. 2019; Raphael and Sayani 2019). The individualistic approach to health is evident in the health policies that subject Canadians to ongoing lifestyle narratives by both federal and provincial governmental authorities and are echoed in mainstream media (Raphael and Sayani 2019). This has made the education and awareness of the social determinants of health through public policy action even more challenging (Raphael and Sayani 2019). The reason for this ongoing focus on individual responsibility for maintaining a healthy lifestyle is perplexing given the fact that the foundations for a broader health framework were created over four decades ago through widespread recognition that individual health was determined by social, cultural, and economic factors (Glouberman and Millar 2003; Martin et al. 2018).

Canada has been a leader among developed countries for researching and extensively reporting the importance of public health policies (Raphael and Sayani 2019). Translating this vast amount of knowledge on the social determinants of health into public policy implementation has been largely overlooked (Raphael and Sayani 2019). The gap between evidence-based research and policy implementation is widely acknowledged in research (Lewis 2014; Miljan 2018; Raphael 2014; Raphael and Sayani 2019). In the 1970s and 1980s, the Canadian government produced internationally recognized documents that stressed the importance of social determinants of health and developing policies for population-level interventions to achieve health equity (Lewis 2015). The 1974 Lalonde report set the foundation for widespread recognition of the social determinants of health (Lewis 2015; Raphael 2014). In 2002, The Commission on the Future of Health Care reinforced this message by calling for the expansion of publicly financed health care (Lewis 2015:499). For several decades now, the federal government has acknowledged the importance of the social determinants of health and their equitable distribution across the country (Raphael and Sayani 2019). Ironically, the social determinants of health are not listed as one of the federal government's public health goals (Raphael and Sayani 2019). While many Canadians pride themselves on the universal health care system in the country, many have become aware of its shortcomings.

Public Health in Ontario

All of the provinces, with the exception of Ontario, regionalized the delivery and administration of healthcare services per the policy recommendations in the 1974 Lalonde report that focused on the idea of promoting social determinants of health (Glouberman and Millar 2003; Martin et al. 2018). Regionalizing the delivery of health care services enabled intersectoral collaboration among provincial regions in an effort to collectively work towards addressing the social determinants of health (Glouberman and Millar 2003). Some studies have documented successes in achieving public health goals, however, there have not been many corresponding developments in public policy that could help to reduce health inequalities (Glouberman and Millar 2003).

Ontario's first steps towards regionalization began in 2006 with the enactment of the *Local Health System Integration Act, 2006,* that facilitated the creation of Local Health Integration Networks (LHINs) (Glouberman and Millar 2003; Raphael 2015; Sandor 2017). Compared to Regional Health Authorities (RHA) that were implemented in other provinces, the LHINs in Ontario have less planning and funding authority and therefore less oversight on how local service providers operate (Raphael 2015). Ironically, LHINs are responsible for coordinating services offered by various health care service providers including hospitals and community care facilities (Sibbald et al. 2018). In Ontario, health policy is, therefore, more fragmented in comparison to other provinces, with the MHLTC being primarily in charge of funding health care (Sibbald et al. 2018). Although there are several models for funding primary health care in Ontario, the fragmentation of care has resulted in challenges regarding collaborating and coordinating primary care plans (Sibbald et al. 2018).

When regionalization in Ontario was initiated, the goal was to promote direct public participation in order to avoid complete state control at the expense of local needs (Raphael 2015). However, LHIN board members were appointed, meaning that the health care organizing body in Ontario lacks public accountability, oversight, and democratic legitimacy (Glouberman and Millar 2003; Raphael 2015). Without the ability to make decisions regarding how to direct funding for service

providers, the objectives of LHINs were confined to balancing budgets, issuing performance agreements, and other business-oriented tasks in order to secure funding for service providers (Raphael 2015). This focus on cost and benefit analysis left little room for public health considerations, such as improving literacy skills and identifying the relationship between poverty and public health outcomes.

In an effort to increase public engagement, recent amendments were enacted in Ontario under *Bill 41, Patients First Act (2016),* which changed the way Ontario's health system was governed (Sheppard, 2019). This large-scale reform was intended to change the way home and community care in Ontario is managed, which prior to the act was arguably ineffectively organized, underfunded, and lacked coordination between health care providers. Home and community care are understood as cradle-to-grave services that are assessed based on the needs of communities. This reform was introduced to better integrate home and community care with primary care, as well as provide transparency, accountability, efficiency, and continuity of care for patients in Ontario (Sheppard 2019). This shift towards empowering local health networks by region, with the right to determine the needs of their community, is a very recent policy implementation in Ontario and more time will, therefore, be needed to determine the efficacy of this reform (Sheppard 2019). This is significant for our project because the success of the reform will shape the way this literacy strategy is targeted, and which community partners are deemed to be the best fit to address a public health issue. The local public health units (PHUs) are therefore more suitable to target when addressing a public health component such as literacy, than privately-run PCPs. A comparison of the two is necessary to further solidify this claim.

Local Health Care Practices

Local Public Health Units (PHUs) receive funding from the MHLTC for two public health nurses to specifically address the social determinants of health (Raphael and Sayani 2019). Previous strategies that have been implemented, such as the 'Let's Start a Conversation About Health … and Not Talk About Health Care At All' video, did not receive direction or guidance from the provincial government (Raphael and Sayani 2019). Despite widespread recognition of this video, both within Canada and internationally, the provincial authority responsible for the local PHUs did not make public reference to or comments on this work (Raphael and Sayani 2019). The lack of organization and direction coincides with findings by the National Coordinating Centre on the Determinants of Health that policy implementation of the social determinants of health by PHUs is infrequent and inconsistent (Raphael, Brassolotto and Baldeo 2014). The main goal of the video was to be a tool for teaching and raising awareness and it is one example of the ways to achieve bottom-up support, regardless of the lack of direction and organization from the provincial government and health authorities (Raphael and Sayani 2019). It demonstrates that PHUs already have the structure and resources to implement a literacy strategy. The work plan that will be created would supplement the lack of guidance from governmental institutions.

Primary Health Care Providers

Primary Care Physicians have been identified as the foundation of effective health care systems because they are often the first point of contact for individuals and they are also the gatekeepers to other specialized health needs (Sibbald et al. 2018). Most physicians in Canada, particularly PCPs, conduct their practices similarly to private businesses (Miljan 2018; Snadden et al. 2019). The separation of physicians from institutions that govern public health has resulted in a fragmentation

of care (Sibbald et al. 2018; Snadden et al. 2019). Physicians acting as corporate managers is a clear conflict of interest with public health policies, but it helps to further the understanding of why physicians may not be interested in promoting social determinants of health through literacy programs when their primary considerations as business owners is to utilize incentives that maximize their profits.

Over the past two decades there has been an increasing shortage of physicians in Canada. This is a problem that is rooted primarily in four policy changes that occurred in the 1990s (Malko and Huckfeldt 2017). These policies collectively limited the supply of physicians by reducing the enrolment of medical students, reducing the amount of international medical students that were recruited, and losing physicians primarily to the United States (Malko and Huckfeldt 2017). The efforts to increase the number of physicians by increasing medical school enrolment beginning in the early 2000s were largely unsuccessful and in 2014, the ratio was at 2.24 physicians per 1,000 people (Malko and Huckfeldt 2017). In London this average is even lower, with not even one physician available per 1,000 people (Gilliand et al. 2019). With a lack of focus on family medicine in medical schools and a limited availability of specialist positions, there is an increasing number of medical graduates who are forced to choose primary care (Gilliand et al. 2019). This can negatively impact the performance and quality of primary health care. One recent study that conducted surveys with PCPs found that one third were generally dissatisfied with the amount of time they were able to spend with each patient (Sibbald et al. 2018).

In London, the availability of PCPs is much lower than the national average. Coupled with this is the unequal distribution of physicians in the city (Gilliland et al. 2019). A geospatial approach to assessing the accessibility of vulnerable groups to physicians in London was conducted, revealing that there is a deficit in the areas that require health assistance the most (Gilliland et al. 2019). Unequal access to health care has become an increasingly important policy consideration given the changing demographics due to a larger ageing population as well as a larger immigration population (Gilliland et al. 2019). This is important information for local service providers and policymakers to know before implementing programs that focus on particular social determinants of health such as literacy (Gilliland et al. 2019). The concept of targeted universalism will be difficult to achieve in a literacy strategy when it is dependent on PCPs that are neither situated in a way that targets the most vulnerable population,-nor are there enough of them in the community to achieve universalism. Changes in health care policy should, therefore, reflect reducing inequities by identifying and targeting vulnerable populations that have the greatest need for primary health care (Holtz et al. 2014). While municipalities have little control over health care policies, they do have control over childhood education policies. A literacy strategy might achieve targeted universalism if it is directed and guided at the municipal level. A focus on education policy might, therefore, prove to be more advantageous.

Educational Policy and it's Understanding of Literacy

As has been noted in the prior sections regarding policy, there is little evidence to suggest a practitioner engagement approach will be feasible to address the issues regarding literacy rates within the City of London. This results largely from the Canadian health system which allows family physicians, along with other practitioners, to act as private entities that can simultaneously retain some levels of autonomy over their practices while working within a publicly funded system. These issues are mirrored in a relative sense within education policy and implementation. In

Ontario, the provincial government acts as the main funder and facilitator of both health (Ministry of Health) and education (Ministry of Education). Municipal governments such as the City of London retain little authority over the funding and implementation of these services within their community (Ministry of Education 2019b). From a strict policy context, municipalities are forced to find unique ways to address issues, such as literacy, as a result of structural ineffectiveness and rigidity of policy at provincial and federal levels.

The Government of Ontario and specifically the Ministry of Education control education through setting policy and curriculum, along with providing funding to school boards who implement services to those within their jurisdiction (Ministry of Education 2019b). The Ministry sets universal requirements for the teaching of students despite the vast economic, social and cultural differences of the students under the policy's reach. The use of universal, province-wide curriculum and standardized testing mechanisms represent the further stratification of education, and ultimately literacy, into the "have-or-have-not" model being left behind with the contemporary understanding of the "Knowledge" economy (Pound 2006: 60). Researcher Zuhra Awabi (2019) references the work of Ardavan Eizadirad and notes that the neo-liberal approach to formal education within Canada, specifically Ontario, has negatively impacted already marginalized groups through the increased value placed on the scores of standardized tests such as the Education Quality and Accountability (EQAO) tests. Awabi (2019) reiterates a long-understood notion within the research that shows standardized testing is often culturally biased and ultimately perpetuates power structures. Success on these tests often requires a cultural intelligence only held by certain privileged individuals. Research regarding the legitimacy of standardized tests and the narrow view of literacy understood currently call into question the true nature of our understanding of literacy. This is notable as educational funding is currently based on a grant system that allocates additional resources to those seen to be in need, often based on the results of similar standardized testing (Ministry of Education 2019b).

Municipal Access Points Within Provincial Educational Policy

While the Ministry of Education provides much of the funding for education at all ages, their direct control over implementation does not begin until a child reaches a formal school environment. The period prior to a child reaching formal education represents an access point for municipal governments to influence their educational path at a crucial point. The Government of Ontario's Early Years and Child Care policy makes use of municipalities as arms to facilitate funding and programming of early education for children (Ministry of Education 2019a). The Ministry of Education (2019a:6) relies upon forty-seven (47) Consolidated Municipal Service Managers (CMSM) who have the "authority to determine funding priorities within their local system, provided they comply with provincial legislation, policies and Guidelines". These CMSM's oversee and provide funding most notably for Ontario EarlyON Child and Family Centres in addition to both not-for-profit and for-profit licensed childcare centres. The role as Consolidated Municipal Service Managers provide municipalities with a tangible role within the early education of its citizens, a role they soon relinquish at the onset of formal education. Additional funding for these programs has been provided by the federal government since 2017 through the Canada – Ontario Early Learning and Child Care Agreement which allotted $439 million from 2017 – 2020 to help increase access to childcare and family centres (Ministry of Education 2019: 23).

Early education programming and interventions such as these are crucial for disrupting cumulative disadvantage among children. Cumulative disadvantage suggests that the gap between those who face educational difficulties and those who do not will only widen over the life course. Research by Laura Northrop (2017) analysed the effects of cumulative disadvantage regarding literacy and how this evolved throughout early education. While cumulative disadvantages are noted, the results also showed that appropriate educational intervention strategies were effective in limiting the continuation of literacy issues (Northrop 2017). However, Northrop's (2017) research suggests secondarily that socioeconomic status, along with family and social support, play a significant factor in a child's likelihood to escape cumulative disadvantage. This understanding of cumulative disadvantage highlights the importance of early education, specifically, educational intervention strategies that are publicly funded and available to all within a community. From a policy perspective, implementing early education interventions should be and is the responsibility of the Municipal service providers, including the City of London. As the research shows, waiting for educational interventions to take place within the formal system voids the municipality's ability and duty to limit the gap of cumulative disadvantage seen within the members of their community.

CONCLUSION

This policy report outlines the political, social and economic framework that shapes the creation and implementation of health policy. By looking at Canada's universal health care system from a historical framework, it becomes evident that the system has always been largely fragmented. This is particularly evident in Ontario where regionalization was implemented much later than in other provinces. Ontario's provincial health organizations are even further fragmented through the separation of funding and provision of care. Several policies that shaped the quality and availability of primary health care were outlined to demonstrate the underlying reasons for the current shortages of PCPs. The purpose of developing a broad policy framework to situate local literacy programs was to show the complex and multidimensional environment that affects the success and longevity of local programs. Findings thus far indicate that perhaps programs that promote SDH are better situated within local public health units, rather than being isolated in silos of corporately driven PCPs. A foundation has already been built within the local public health system that has the potential to be revamped with a carefully coordinated literacy project.

Furthermore, this policy report concludes that literacy strategies should be couched within the educational policy framework because they are the one exception to the disconnect between municipal and provincial policy contexts. Municipalities do not have control over health care, but they do have some control over education. A working literacy strategy must consider this in order to achieve success and longevity in local communities. However, this success and longevity is also dependent on the resources each community has available. Identification of the available resources, and potential high-risk communities, is highlighted in the following section.

COMMUNITY PROFILE

OBJECTIVE

The objective of the Community Profile team was to better assess the literacy needs of children living in London. The team developed a community profile of high-risk neighbourhoods based on relevant socioeconomic, demographic, and literacy based indicators that include: 1) children's scores on the Early Development Instrument; 2) the percentage of the population that immigrated between 2006-2016; 3) the percentage of children under the age of 6 living in low-income families; and 4) the percentage of the population age 15+ with no certificate, diploma, or degree (high school not completed). All data are based on the 2016 Census and come from the City of London's community profile website

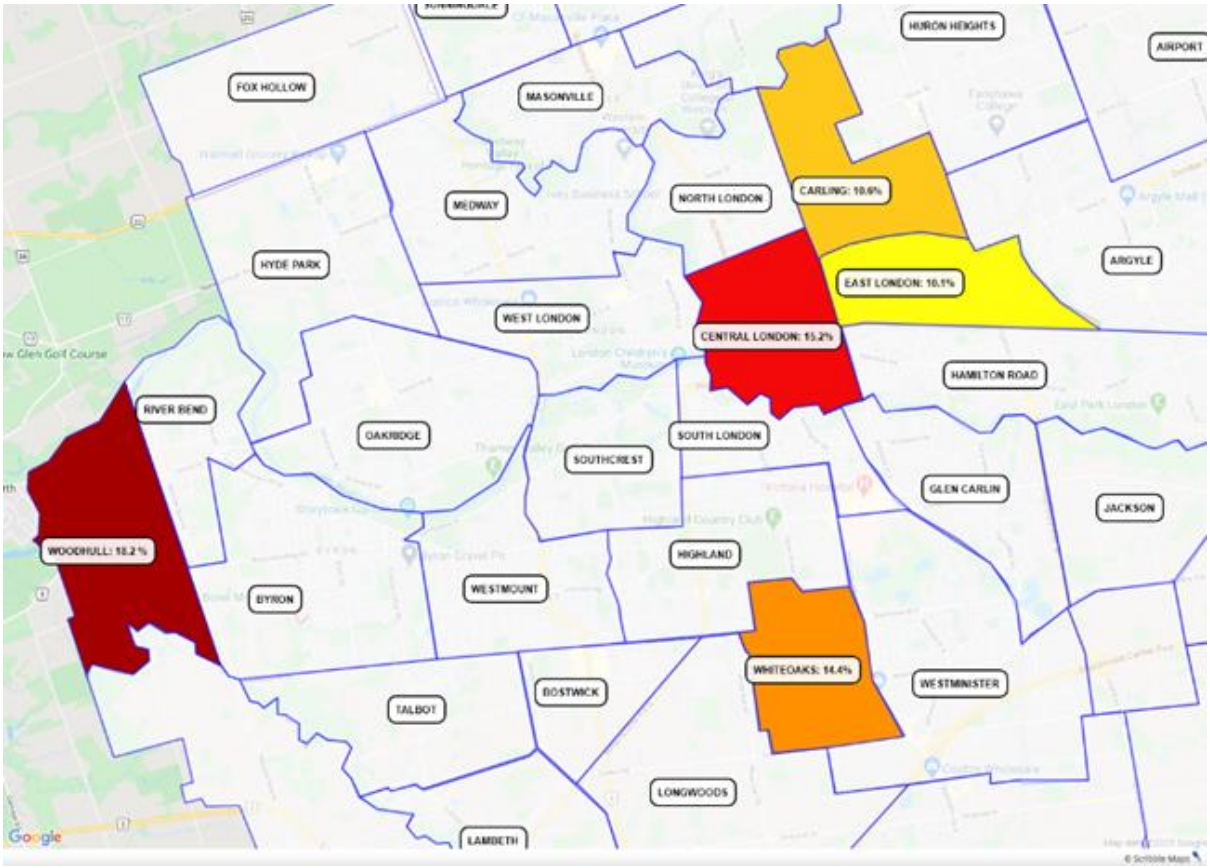
Appendix A presents data for each indicator across all neighbourhoods in London, along with the corresponding data for London and Ontario as whole where available. We used this data to identify the top five neighbourhoods of greatest risk in the London area (i.e. those with the worst scores). Below we present a series of maps that identify high-risk neighbourhoods in London based on specific criteria. We conclude by identifying the neighbourhoods in London with the highest cumulative risk associated with children's low language and cognitive development scores, children under the age of 6 living in low-income families, immigrant populations, and the percentage of the population aged 15+ without a high school diploma or equivalent.

Early Development Instrument

The Early Development Instrument (EDI) measures children's ability to meet age appropriate developmental expectations in five general domains at school entry: Physical Health and Well-Being, Social Competence, Emotional Maturity, Language and Cognitive, and Communication Skills and General Knowledge. For the purposes of this community profile, we focused on children who are vulnerable in the language and cognitive development domain.

Figure 1 indicates that Woodhall (18.2%), Central London (15.2%), White Oaks (14.4%), Carling (10.6%), and East London (10.1%) have the highest percentage of children who are vulnerable on the language and cognitive development domain of the EDI. These rates are higher than the corresponding percentages in London (9.5%) and Ontario (6.7%) as a whole.

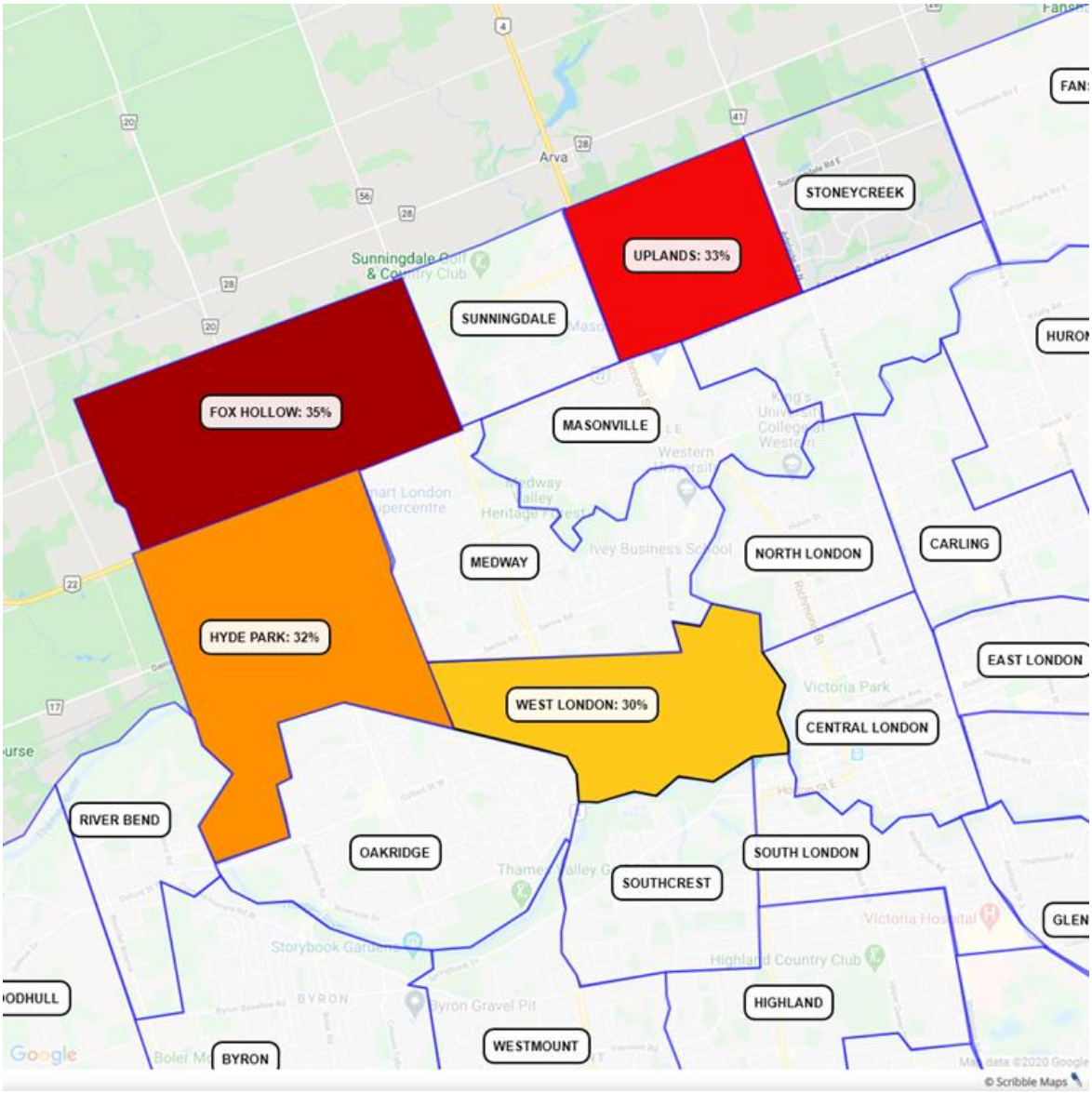
Figure 1: Top 5 High-Risk Neighbourhoods: Language and Cognitive Development



Immigration

Immigrants today account for 22% of the population in London and 5.8% of population growth between 1996 and 2016 can be attributed to new immigrants. Although immigrant status may not be an indicator of risk for low literacy, many immigrants do not speak English as a first language and are experiencing challenges related to employment and integration in Canadian society. Figure 2 demonstrates that the areas that carry the highest rates of immigration are Fox Hollow (35%), Uplands (33%), Hyde Park (32%) and West London (30%).

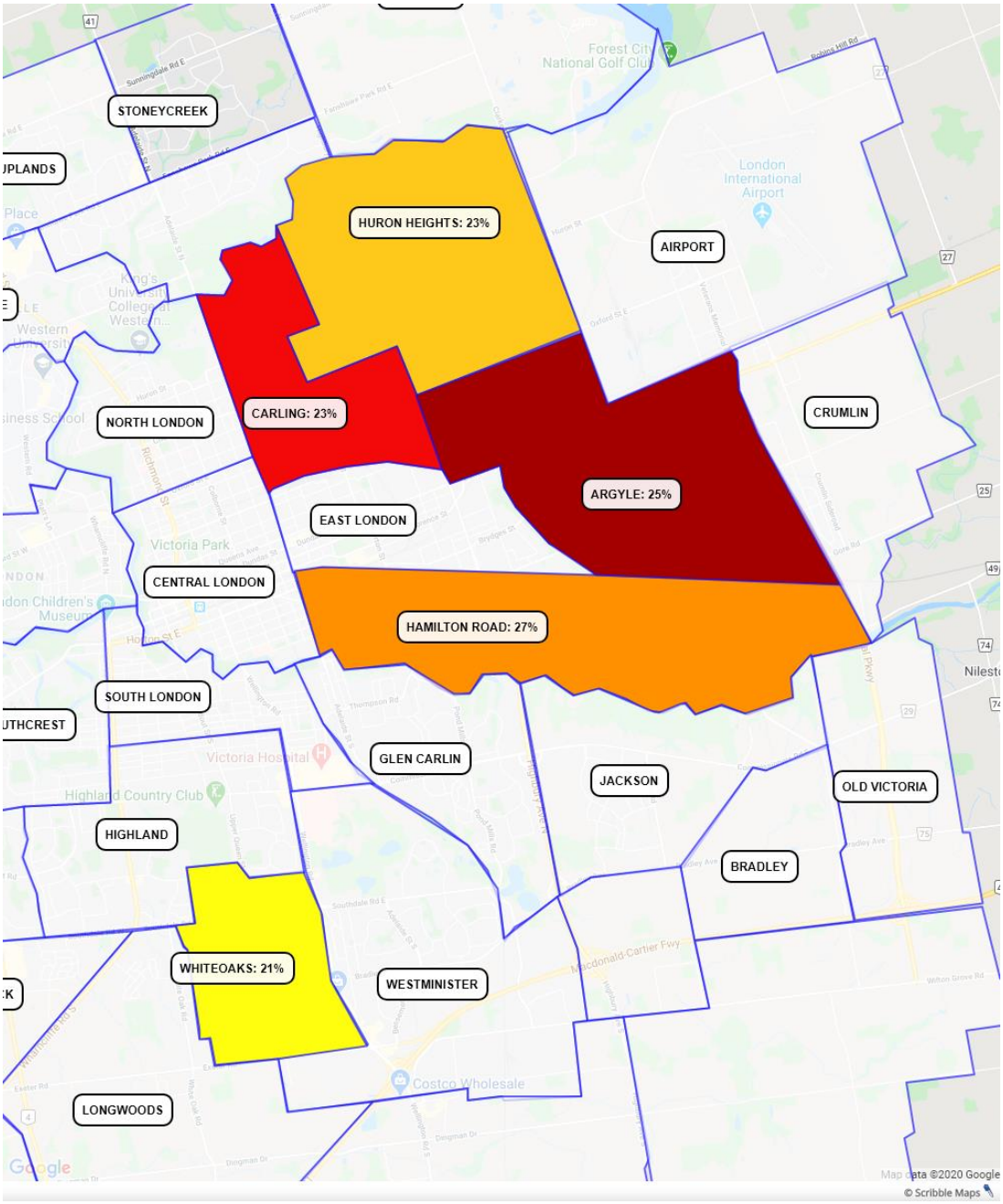
Figure 2: Top 5 High-Risk Neighbourhoods: Immigration



Educational Attainment

Parents with higher educational attainment are better positioned to invest in their children's literacy development. Over 16% of London's population do not have a certificate, diploma, or degree (i.e. high school not completed). Figure 3 demonstrates that the neighbourhoods with the highest percentage of individuals aged 15 and over who did not complete high school are Argyle (25%), Carling (23%), Hamilton Road (27%), Huron Heights (23%) and White Oaks (21%).

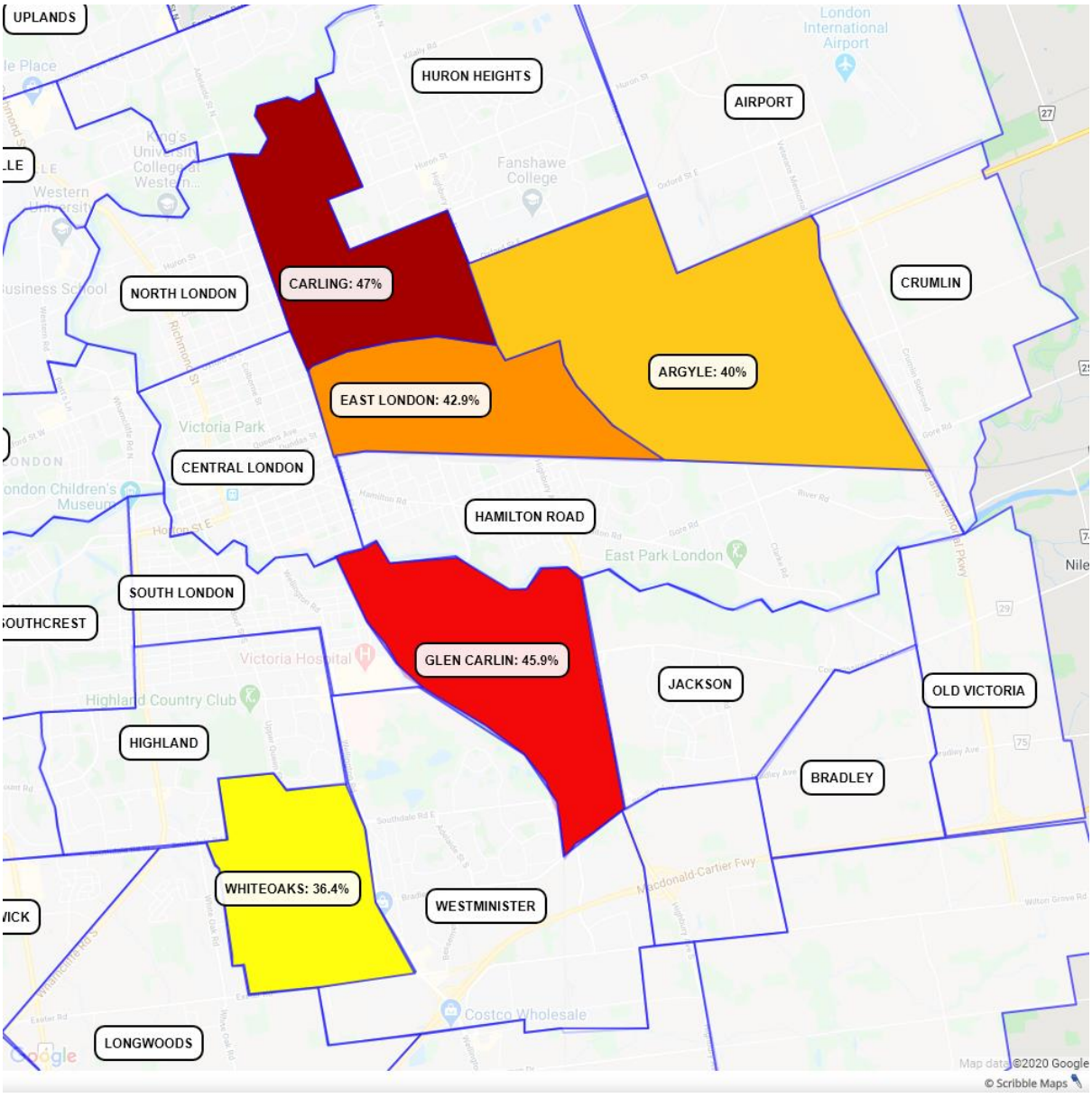
Figure 3: Top 5 High-Risk Neighbourhoods: Percentage of the Population Aged 15+ Without a Certificate, Diploma, or Degree



Low-Income Families with Children In London

Given the known link between socioeconomic status and children's development, we identified neighbourhoods in London with a high percentage of children under the age of 6 living in low-income families. Figure 4 indicates that Carling (47%), Glen Carlin (45.9%), East London (42.9%), Argyle (40%), and White Oaks (36.4%) have the highest percentage of children under the age of 6 living in low-income families.

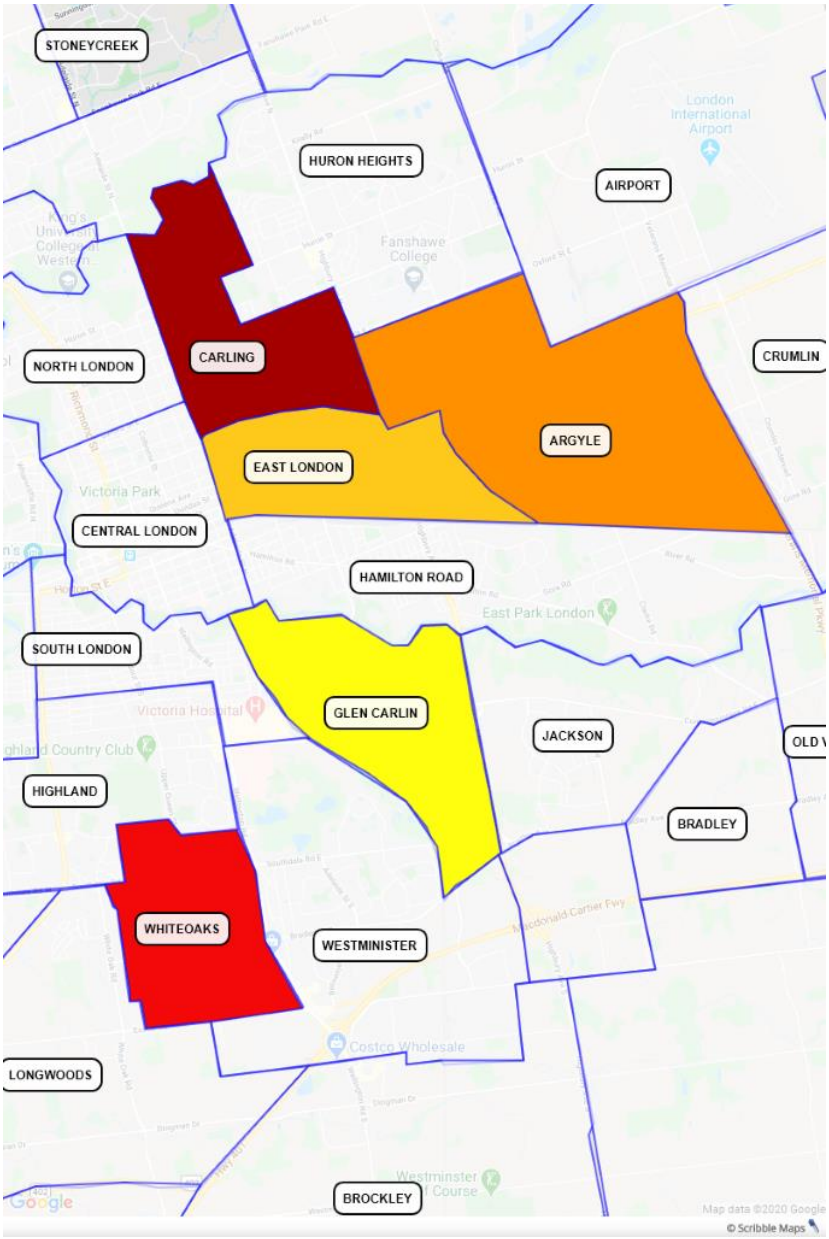
Figure 4: Top 5 High-Risk Neighbourhoods: Percentage of Children Under the Age of 6 Living in Low-Income Families



CONCLUSION

Figure 5 demonstrates the neighbourhoods with the highest cumulative risk associated with children's low language and cognitive development scores, living in low-income families, immigrant populations, and low educational attainment. We can see from the work of the Community Profile team that there are five areas in London that are classed as high-risk neighbourhoods based on the cumulative risks described above and the visible representations. Working with the Environmental Scan team we were able to share valuable information that represents that neighbourhoods who have been recognized as being high-risk also lack the available resources to combat literacy issues in the city of London.

Figure 5: High-Risk Neighbourhoods in London



ENVIRONMENTAL SCAN

OBJECTIVE

The objective of this Environmental Scan was to research all city-wide resources that are relevant to literacy development of infants and children ages 0 to 6. This information will contribute to our overall project in two ways. Firstly, we will locate all programs and identify the level of readily available resources within each neighbourhood. This information will be compared to neighbourhood profiles that classify high risk neighbourhoods (based on information about income, children living in poverty, immigrant populations, and children's scores on the Early Development Instrument) and, ultimately, determine a target neighbourhood(s) due to the identified disconnect between the needs of the community and the available resources. Secondly, the contextual information that is gathered about each of the resources and programs, how they operate and interact with one another, will contribute to our final health care engagement strategy and report.

METHODS

In order for the resources to be relevant for our project there were specific inclusion criteria that had to be met. The program had to be available to children from our target age group of 0 to 6. The programs needed to be related to literacy which The Child and Youth Network (CYN) defines as the flexible and sustainable ability to competently and confidently interpret traditional and new communication technologies whether spoken, print or multimedia (Child and Youth Agenda 2017:40). Using this definition, we included any programs that encourage communication between children and their parent/caregiver, or between children. These programs focused on music, cooking, certain physical activities as well as more traditional activities like reading from books. Educational programs for parents were also included if they were teaching about literacy development of children in our target age group.

The Environmental Scan team initiated the process by using the CYN agenda to gain an understanding of how different organizations are working together toward the "making literacy a way of life" (Child and Youth Agenda 2017:7) priority. The agenda was used to create a list of organizations around London that show support for the CYN's literacy priority. Each organization was researched online to identify if their programs fell into the scan's inclusion criteria. Through class discussions, and gathering further information from the CYN agenda, The Family Centres were identified as extremely literacy rich environments. The team met with Shelly Byfield, the Program Coordinator, for a tour of the White Oaks Family Centre to understand their value fully. This tour served as a great base to understanding how children's programs work around the city. Shelly discussed with the team the importance of the Centres being the hub in the community for resources.

Further research was required to complete the objective of understanding the levels of readily available programs in each neighbourhood. Calendars of February 2020 (Familyinfo.ca) were assessed to find how many free drop-in programs (readily available) within our inclusion criteria ran weekly in each neighbourhood. Free and/or low-cost programs that required registration were also noted. When information was unclear online, in person discussion or a phone call was used to obtain clarifying information. For example, a discussion with a librarian at the Masonville Library branch provided context to how the libraries have partnerships with other community

resources to complete some of their programming. This was completed for all Family Centres, libraries, and previously identified organizations to complete the Environmental Scan.

CONTEXTUAL INFORMATION

The Environmental Scan provided the team with an in-depth understanding of the Family Centres and community resources available in London. The team learned that there are seven Family Centres within London located in different neighbourhoods across the city regardless of socio-economic status or income level. Each of the Centres are attached to either a public or catholic elementary school. Some of them offer programs that are unique to the specific centre, however many of the resources that were gathered were offered centre wide. The CYN states that "while each Family Centre is unique, the core principles, functions, and services are the same across the system" (Child and Youth Agenda 2017:98). Each centre is run by Community Connectors who act as the first point of contact when a person or family comes into the centres seeking assistance. The CYN states "Community Connectors are fundamental to helping London families get connected to services and support" (Child and Youth Agenda 2017:94). When the families arrive at the Centres the first person that they meet is a Community Connector who will listen to their needs and suggest resources that would be suitable for them. The Community Connector plays an important role for services which require registration such as programs that are offered through the London Middlesex Health Unit (LMHU) and Vanier Children's Services. They can also assist with further outreach to community partners to access assistance when more in-depth help is required.

While touring the White Oaks Family Centre we were shown a wall of literacy blocks. The blocks show numerous images like numbers, letters and pictures to encourage conversation between parent and child. This is only one example of the Centre's commitment to literacy rich initiatives for the community. The team also learned that before a centre is built extensive planning and discussion regarding what the best resources for the community the centre is being built in are. The community partners are then able to decide which resources are beneficial for the area, and make sure that the appropriate programs are offered. The research is intricate and requires input from numerous organizations in the community which takes at least two years to complete.

Through discussion with Shelly, the team learned that people who locate and use the Centres are usually members of the community that have used or have had access to resources in the past. They are aware of what is available to them and are therefore more capable of locating the help that they need. This is especially true if the families have already used the Family Centre's previously. It is important that these resources also help the population of people that have not been connected, or do not know how to reach out for help especially regarding their young children. The CYN states in their agenda that "less than 12% of families in both Family Centre neighbourhoods and non-Family Centre neighbourhoods were aware of Family Centres" (Child and Youth Agenda 2017:98). It is the opinion of our team that making the proper community connections is essential so that everyone can access the Centres according to their need especially for parents who have children in our target age group.

Libraries were also identified as key locations that focus on literacy development for young children. This was present in programming that was more traditional, such as "Books for

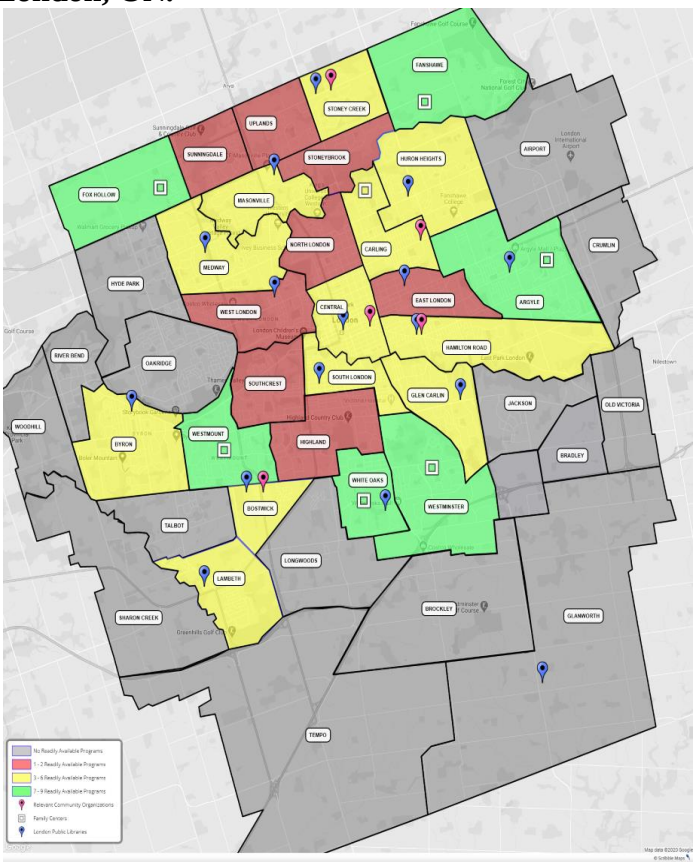
Babies", but also in programs like "Design Mornings in the Studio" that encourage communicating through art. Like the Family Centres, libraries often host programming from other London organizations, such as YMCA.

The environmental scan team also identified other community organizations that provide literacy programs. Childreach (Childreach 2019), LUSO Community Services (LUSO 2020) and La Ribambelle (a French language-based program) run their own programs, but also contribute to both the Family Centres and libraries by using these spaces to host their programs more widely around the city. La Ribambelle opens their programs to anyone who would like to participate and is not strictly for French speaking community members. It is through these important collaborations that key relationships are developed and utilized to establish the idea of "making literacy a way of life" (Child and Youth Network 2017:7).

MAP DEVELOPMENT

To create a visual representation of the research that was conducted, a map was designed showing the locations of each of the Family Centres, libraries, and community organizations throughout the city, this map can be referenced in Figure 6. The map shows each neighbourhood in the City of London and indicates the different level of resources available in that area. The colours green, yellow, red and grey were used to interpret the amount of readily available resources available in each neighbourhood. Green indicates the neighbourhoods with the most weekly resources, seven and above. Yellow indicates the neighbourhoods with three to six weekly resources. Red indicates neighbourhoods with two weekly resources and below, and grey indicates the areas where there were no resources found (zero). They will be listed from greatest amount of readily available programming to least along with a brief description and table summary of each neighbourhood in Appendix B of this report.

Figure 6: Locations of Family Centres, Libraries and Community Organization across London, ON.



The collaborative map, that can be referenced in Figures 7 and 8 used the environmental scan map as a base and were able to identify high-risk neighbourhoods using orange flags. The community profile team identified high-risk neighbourhoods according to the following factors: percentage of children living in poverty, children's Early Development Scores (measures children's developmental rate by the time they begin pre-school. Several factors are measured under the EDI: language and cognition, physical health and well-being, social competence, emotional maturity, and communication skills and general knowledge), percentage of immigrants and newcomers, income and parental education. Our team wanted to make sure that not only were the high-risk areas visible in this map, but also that colours from the base map were visible. This will allow the viewer to see the high-risk areas while also seeing the level of readily available programs in each neighbourhood in our city.

Figure 7: Collaborative Map of High-Risk Neighbourhoods in London, ON

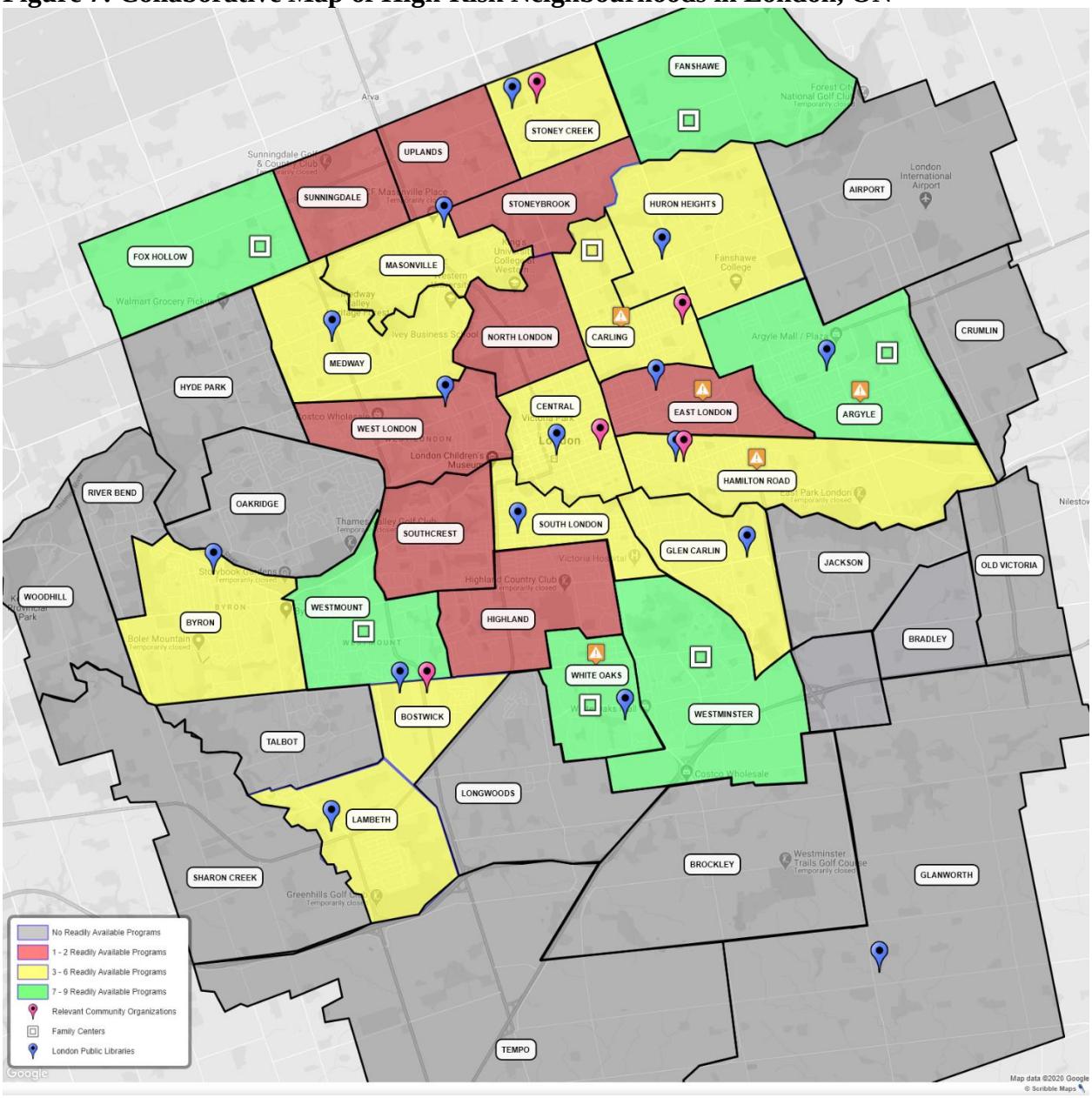
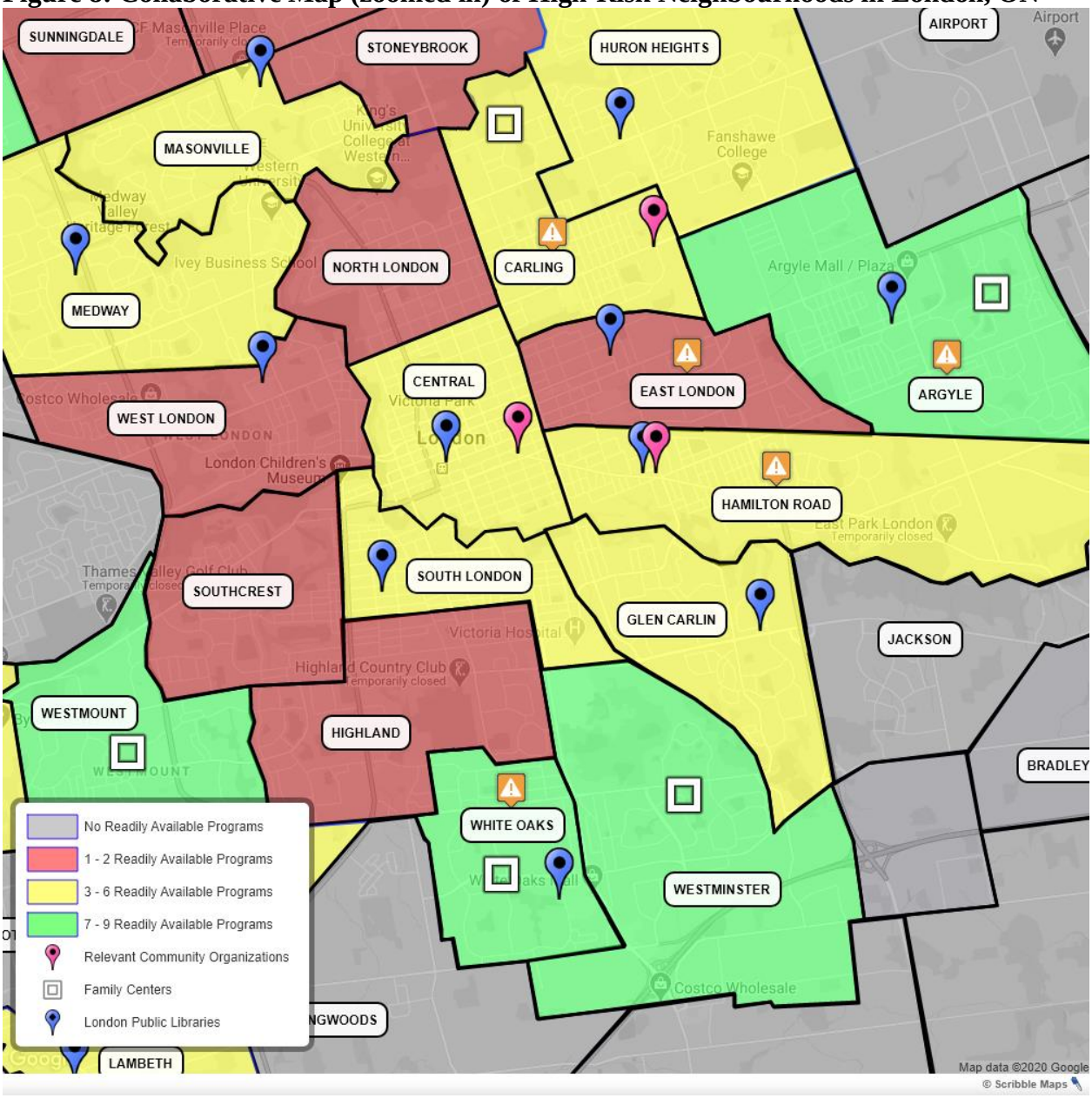


Figure 8: Collaborative Map (zoomed in) of High-Risk Neighbourhoods in London, ON



KEY TAKE AWAY FROM COLLABORATIVE MAP

This collaborative map shows that White Oaks, Argyle, Carling, East London and Hamilton road are all high-risk neighbourhoods in our city. All of these neighbourhoods have a medium to high amount of weekly resources that could expose children to literacy rich environments, with the exception of East London which only has 2 resources available to them. It is also important to note that the map shows that Fanshawe, Westminster and Westmount all have high resources but were not identified as high-risk neighbourhoods by the Community Profile team.

Further research and input will be required from the literature review to evaluate if these factors are significantly correlated to low literacy rates and if they should be targeted neighbourhoods. If

needed, maps could also be produced showing the relationship between the literacy resources and each individual risk factor the Community Profile team researched.

LIMITATIONS

The Environmental team identified potential limitations of this research. Firstly, we acknowledge that it is likely that citizens of London access resources outside of the neighbourhood they live in. However, in order to compare with the statistics from the neighbourhood profiles, and the City of London, we needed to categorize by neighbourhood. A secondary limitation is that the readily available programs were based off a week in February 2020. Efforts were made to ensure that the week selected was a good representation of an average week. Programs that were offered once a week contributed to the sum of readily available resources as 1 point, programs that were offered every two weeks were counted as 0.5, and once a month as 0.25. Assigning these values allowed us to compare how many readily available programs were available in each neighbourhood.

CONCLUSION

In conclusion, by using the information that we gathered from the environmental scan and the information that we received from the community profile team, we were able to create a visual explanation of the resource distributions across neighbourhoods. By highlighting the high-risk areas, we can have a better understanding of the overall picture of literacy in London, and if there are connections of any kind between the lack of resources in the neighbourhoods that are deemed high risk, and the amount of readily available resources. We can then consider the numerous factors such as the level of parental education in any given neighbourhood and use that to provide insight as to which neighbourhoods may be at a greater need for more literacy programs. Potential variables that influence literacy rates, and outcomes of literacy rates, are examined in the Quantitative Analysis section of this report. Combining these variables with the environmental scan assists in identifying the resources that deserve the most attention.

QUANTITATIVE ANALYSIS[1]

OBJECTIVES

The objective of the Quantitative Analysis research was to identify both the determinants and the various outcomes of literacy which was completed by using both a national-level survey and a provincial-level survey to identify the determinants of literacy as well as the various outcomes of literacy. The Child and Youth Network (CYN) has identified literacy as an issue in London which is evident in the lack of school readiness, the Education Quality and Accountability (EQAO) test scores, the Ontario Secondary School Literacy Test (OSSLT) scores, and graduation rates. Interventions such as the Baby's Book Bag and 2000 Words Program have not been successful at addressing the literacy problem in London as literacy in children has not improved. By looking at both the National Longitudinal Survey of Children and Youth (NLSCY) and the Ontario Child Health Study (OCHS) we were able to identify the aspects of a child's life that have an impact on their literacy and in turn, how their literacy impacts various areas of their life.

DATASET AND VARIABLES

National Longitudinal Survey of Children and Youth

The NLSCY was conducted in 1994 with the purpose of assessing child development and well-being. While the NLSCY is outdated, its comprehensiveness makes it a valuable source of data on children and youth. This dataset consists of an excellent measure of children's literacy, the Peabody Picture Vocabulary Test-Revised (PPVT-R) which was administered to children between 4 and 5 years of age with the purpose of measuring the school readiness of the child. The test looks at both receptive and hearing vocabulary by presenting pictures to the child and having them identify the picture to the correct word the interviewer would say aloud. A score is assigned to the child based on their performance, with a higher score indicating a higher level of literacy. It is important to note that this is the only national-level survey on children of this age.

Socioeconomic status of the family, single parent status, parent's highest level of education, and immigration status were used in the analysis as independent variables to assess if they are determinants of children's literacy. Socioeconomic status identifies where a person or family stands in the social structure. Aspects such as level of education, how respected their chosen occupation is, and household income, make up the overall socioeconomic score in the NLSCY. For example, a score of 1.5 may indicate that both parents have a university degree, both are employed professionals, and their household income is approximately $77,000. Whereas, a score of -2.0 may indicate that there is no spouse in the family, the person most knowledgeable (PMK) has not completed high school and is not in the labour force, and that the household income is less than $10,000. Single parent status was used by comparing households with one parent to households with two parents in the home. Parent's highest level of education was used to compare those with less than high school, a secondary school graduate, more than high school, and a college or university degree. Lastly, immigration status was addressed by looking at the length of time between moving to Canada and taking the PPVT-R.

[1] Please consult with Dr. Jinette Comeau if you would like to use the results of this analysis. Due to the unforeseen consequences of the Covid-19 pandemic, essential resources were inaccessible nearing the completion of the report.

Hyperactivity, anxiety, prosocial behaviour and aggressive behaviour were all used in the analysis as dependent variables to assess if they are outcomes of children's literacy. Hyperactivity was measured using scores from the PMK's responses to how often the following applied to the child: they cannot sit still, they destroy their own things, they fidget, they cannot concentrate or pay attention, they are impulsive, they have a hard time waiting for their turn during a game, they cannot settle for more than a few moments, and they are inattentive. Higher scores for hyperactivity indicate higher levels of hyperactive behaviour. Anxiety was measured using scores from the PMK's responses to how often the following applied to the child: threatens people, is not as happy as other children, is fearful or anxious, is worried, cries a lot, and appears miserable/ unhappy/ tearful/ distressed, is nervous/ high-strung/ tense. High scores indicate behaviours associated with anxiety. Prosocial behaviour was again measured using scores from the PMK's responses to how often the following applied to the child: they cannot sit still, they are distractible, they fidget, they cannot concentrate or pay attention for very long, they are impulsive, they have a hard time waiting for their turn during a game or in groups, and they cannot settle for more than a few moments. A higher score indicates behaviours associated with prosocial behaviour. Lastly, aggressive behaviour was measured using scores from the PMK's responses to how often the following applied to the child: they destroy their own things, they get into fights, they destroy things that belong to their family or other children, they react to accidents by other children (such as bumping into them) with anger and/ or fighting, physically attacks people, threatens people, and is cruel/ bullies/ mean to others. Higher scores indicate behaviours associated with conduct disorders and physical aggression.

Ontario Child Health Study

The Ontario Child Health Study (OCHS) was conducted in 2014 and is a provincial research study that looked at both the physical and mental health of Ontario children and youth ages 4 to 17. For our project with the CYN this study was used as it had important variables that we could look at to assess both determinants of children's literacy and outcomes of literacy. It is important to note that the OCHS is able to pick up on youth's mental health as it has data on children aged 14 to 17 whereas the NLSCY was unable to address a full picture of youth's mental health because the data was only for children aged 4 to 5. The best variable to address children's literacy in the OCHS was one that asked teachers to assess the child's grade for reading, writing, and communication. The options for the teachers to pick were, less than 60%, 60% to 69%, 70% to 79%, and 80% to 100%. This variable was used to make a cut point of poor vs. good grades, however using less than 60% as one category did not work because there was such a small number of children that fell into this category. Therefore, the new variable compared poor vs. good grades using two categories, less than 69% representing poor grades, and 70% to 100% representing good grades. It was important to make this cut point for interpretation reasonings; however, it has been recognized that it is not the greatest.

Parent's highest level of education, income, mother's age at birth, single parent status, immigrant status, and urban/rural location were used in the analysis as independent variables to assess if they are determinants of children's literacy. Parent's highest level of education was used to compare those with high school or less and those with more than high school. The low-income measure variable was used to compare families in a low-income household and families not within a low-income household, essentially those families deemed poor, compared to those who are not. Mother's age at birth varied from age 14 to 49 and was used to see if being born to a

younger mother had a negative or positive impact on the child's literacy. Single parent status was used to compare households with one parent to households with two parents. Immigrant status was divided into two groups, either both parents were born in Canada, or at least one parent was born outside of Canada. Lastly, urban/rural location was used to see if where a family lives geographically has an impact on the child's literacy.

Variables were created by the OCHS researchers to assess children's internalizing factors and externalizing factors. Internalizing factors include depression, anxiety, isolation, etc. whereas externalizing factors would include behavioural issues like aggression and delinquent behaviour. Both internalizing and externalizing, along with a variable on youth's self-esteem were used to see if they are outcomes of children's literacy. The internalizing and externalizing variables were both checklists where each question had three options to choose from: 0 would be never or not true, 1 would be sometimes or somewhat true, and 2 would be often or very true. This checklist was completed by the PMK. With this being said, a lower score overall means the child is doing better. Youth self-esteem was also used as a scale with lower values meaning better self-esteem.

ANALYSIS

As was previously mentioned, using both the NLSCY and the OCHS we can address possible determinants of children's literacy and possible outcomes of children's literacy. Multivariate regressions were conducted on the association between children's literacy and their internalizing, externalizing, and self-esteem scores using the OCHS and their hyperactivity, anxiety, prosocial behaviour, and aggressive behaviour using the NLSCY. To address determinants of children's literacy multivariate regressions were conducted using parent's education, socioeconomic status, income, mother's age at birth, single parent status, immigrant status, and urban/rural location. A visual of what was conducted can be found below in figure 9 and 10.

Figure 9: NLSCY

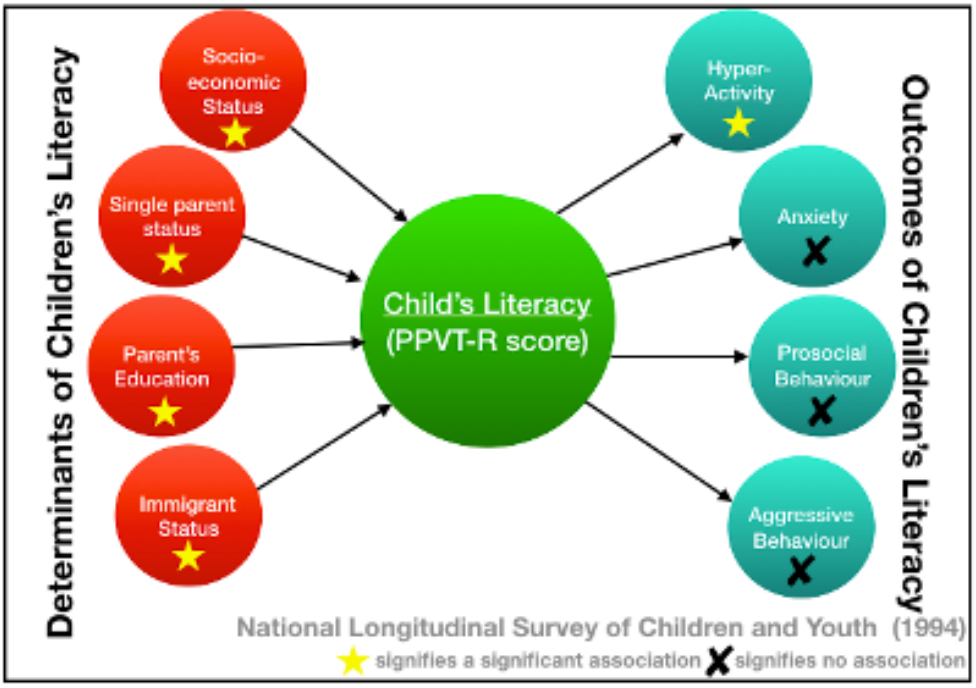
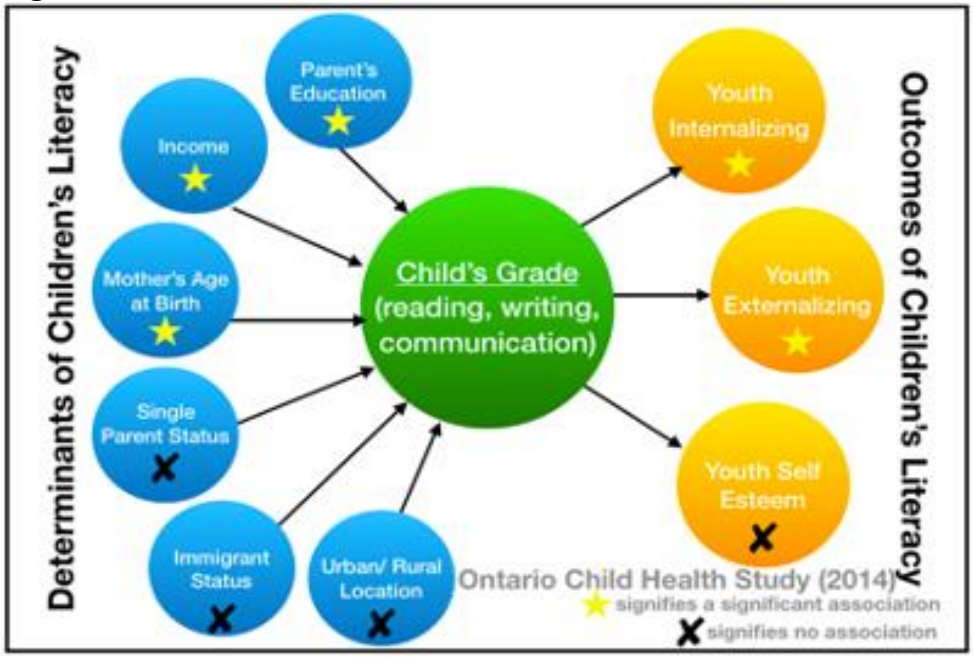


Figure 10: OCHS

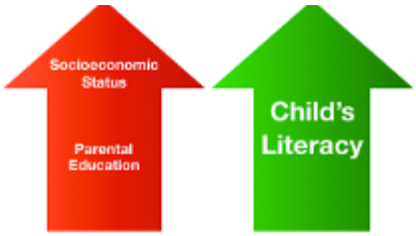


RESULTS AND INTERPRETATION

National Longitudinal Survey of Children and Youth

First, PPVT-R was used as a dependent variable to see if literacy was impacted by the child's gender, the socio-economic status of the family, whether the child lived in a single parent home or not, what the PMK's highest level of education was, and if the child was an immigrant. For these variables, the child's gender had no significant impact on their literacy scores. However, socioeconomic status, single parent status, the PMK's highest level of education, and immigrant status did have a significant impact on the child's literacy. Beginning with socioeconomic status, the data indicates that for every increase in the level of socioeconomic status, children's literacy increases by 4.814. For children living in two parent homes literacy scores are 3.988 higher than those in single parent homes. Also, as the parent's education increases, the child's literacy score increases by 4.430. Lastly, those who immigrated more than 5 years before taking the PPVT-R have literacy scores 15.004 lower than those who were not immigrants. Both the relationship between socioeconomic status and parental education with children's literacy can be seen in figure 11.

Figure 11: Linear Regression NLSCY



Next, the PPVT-R was used as an independent variable to see if various childhood outcomes were impacted by childhood literacy. Hyperactivity, aggressive behaviour, anxiety, and prosocial behaviour were examined to see if literacy impacted the levels of these behaviours. Of these variables, literacy had no significant impact on children's outward displays of aggression, anxiety, or prosocial behaviour. However, it did significantly impact children's levels of hyperactivity, indicating that for every increase in a child's literacy score, their hyperactive behaviour would decrease by 0.012. These findings are summarized in figure 12.

Figure 12: Linear Regression NLSCY

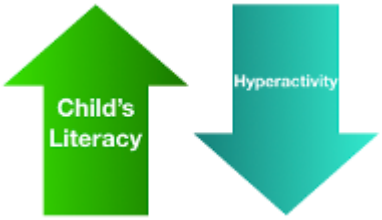
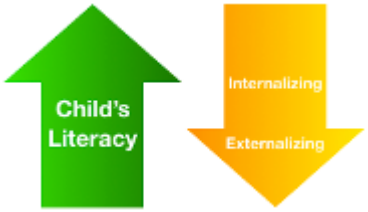


Figure 13: Linear Regression OCHS



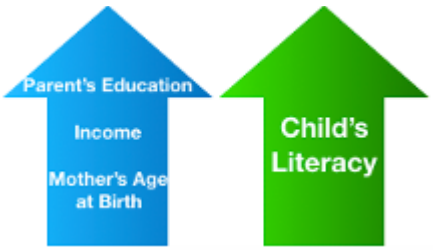
Ontario Child Health Study

The first linear regression that was run used 'internalizing' as the dependent variable and the child's grade for reading, writing, and communication as the independent variable, which means we are addressing if internalizing factors are an outcome of literacy. A significant negative association was found meaning, as the child's grade increases, the internalizing score decreases. When using externalizing as the dependent variable a significant negative association was also found which means, as the child's grade increases, the externalizing score decreases. Both relationships are illustrated in figure 13.

Lastly, youth self-esteem was used as the dependent variable and a significant positive association was found, however, when controlling for age there was no longer a significant association which means it was a spurious relationship and age was causing the association to be significant. The significant associations that were found when analysing the linear regressions created both make logical sense. These associations mean, as a child's grade on reading, writing, and communication increases, their score on the checklist for internalizing and externalizing factors decreases and a lower score is better. This is what we would expect because children who do better at school generally do better in most other aspects of life compared to their counterparts who do not do as well in school. A student who is struggling in school is more likely to act out and feel worse about themselves compared to a student who is doing well in school.

Next, binary logistic regressions were run using the variable created to compare poor vs. good grades on reading, writing, and communication as the dependent variable. In the regression the independent variables were age of the child, sex of the child, location (urban vs. rural), parent's education, single parent status, income, mother's age at birth, and parent's immigration status. Using these independent variables, we are trying to address if any of the above are determinants of children's literacy. The final model of the logistic regression showed that when parents have a post-secondary degree it makes the child 1.3 times more likely to get good grades. Urban and rural status had no effect on the child's grade. When you are from a poor income household you are less likely to get good grades. Whether you come from a single parent home has no effect on the child's grade in the final model, however on its own it had an effect. Mother's age at birth is one of the strongest variables in this model, along with income. As a mother's age increases, the odds of the child getting good grades increases. Lastly, a very important finding for debunking the common stigmatization on immigrants is that immigration status has no effect on the child's grade. The significant determinants of children's literacy are summarized in figure 14.

Figure 14: Logistic Regression OCHS



Lastly, interaction terms were also considered in these models to examine if the relationship between two variables is different for two subgroups of our sample. To summarize the findings, the effect of literacy on internalizing and externalizing factors decreases as the child's age increases which means there is a greater effect on younger children. In addition, the effect of literacy on internalizing and externalizing factors is less for females compared to males, meaning literacy has a stronger effect on males.

LIMITATIONS

The biggest limitation using the Ontario Child Health Study is that it is not a longitudinal survey and therefore it is difficult to explain causation. There is a possibility that internalizing and externalizing issues came before literacy or it could be the other way around. Thus, reverse causation could be a possibility as we do not know if literacy came before internalizing and externalizing problems or if it was the opposite. Also, there are specific limitations to using NLSCY. One, which has been mentioned, is the age of the study. An updated, comprehensive study would be beneficial. Secondly, the study encompasses all of Canada and does not necessarily include the unique aspects of London, Ontario as a community. The NLSCY was also unable to pick up on any mental health issues because of the age range of the children we were looking at. A limitation specific to using the OCHS was the variable we used on the child's grade for reading, writing, and communication. To create this variable, teachers in Ontario were asked to report on how each child was doing in terms of reading, writing, and communication and assign them a grade. This variable had a lot of missing data however it was better than using parent reports on how their child was doing because with parents there is a risk of bias and reporting that your child is doing better.

CONCLUSIONS[2]

To conclude, the findings from the analyses using both the NLSCY and the OCHS have a great impact on this project with the Child and Youth Network. The data from the NLSCY, even though it is more than twenty-six years old, provides us with the information needed to understand both what impacts, and what is impacted by, childhood literacy. As indicated in the review of the data, external factors such as socio-economic status, parent's education, and years since immigration significantly impact a child's literacy scores. The data from the OCHS also indicates that a parent's education impacts a child's literacy scores, as well as income and mother's age at birth. This tells us that as a community our focus does not need to be directly on the child, but on social aspects that assist individuals in moving out of poverty and achieving higher education. A conflicting finding between the NLSCY and OCHS was immigrant status being a determinant of literacy. It was found using the NLSCY that families who had immigrated more than 5 years prior to their child taking the test had lower literacy scores, whereas in the OCHS immigration status had no significant impact on literacy. With the NLSCY conducted in 1994 and the OCHS in 2014, it is possible that immigrants are now receiving much better support and can better adjust to their new lives in Canada than they were able to before.

[2] The models created from running linear regressions using the NLSCY dataset can be found in Appendix B and the results from the OCHS are at the Research Data Centre at Western University and are available upon request if any further details are needed.

The findings from both the NLSCY and the OCHS show that literacy has a significant impact on the child. We see that children with lower literacy experience more hyperactivity and worse internalizing and externalizing factors. These findings show that there are consistent mental health consequences for children not doing well in school and proves how essential good childhood literacy is. These findings support the Child and Youth Network's goal of ensuring that children, youth, and families in London develop strong literacy skills to fully participate and thrive throughout their lives. However, in addition to quantitative data we must also acknowledge the lived experiences of Londoners. This information was gathered by the qualitative analysis team and is discussed in the following section.

QUALITATIVE ANALYSIS[3]

OBJECTIVE

The objective of the Qualitative Analysis team was to interview healthcare providers, community leaders and parents/caregivers throughout London to obtain a greater understanding of the issues that are being faced in the city. Upon collecting important data from community members, the team was able to draw on the results that were gathered through the interviews to better understand literacy and school readiness of children in London within the target age group. The Qualitative team will outline the methods and findings of the report while also providing insights as to where the issue of literacy may be stemming from through compiling and presenting a list of overall themes found in the data from Healthcare Provider's (HCPs), community leaders, and parent/caregiver interviews. The findings and their perspective importance, as well as the limitations of this study will be discussed throughout the report.

METHODS

Healthcare Providers

When speaking with HCPs, the objective was to examine the extent to which they understood the importance of early literacy and the feasibility of involving them in the City of London's literacy initiatives. This is important, because without this understanding, we would not be able to provide viable solutions to the issue that we have been tasked with. Our interviews with these individuals proved to be both insightful and informative.

For the HCP's, semi-structured interviews were conducted with Clare Mitchell and Heather Bywaters. Clare Mitchell works at the Child and Parent Resource Institute (CPRI) in the developmental paediatrics field. Heather Bywaters works at the London Middlesex Health-Unit as a public health nurse and is a part of Jennifer Smith's team with the Child and Youth Network (CYN). Before beginning the interviews, both participants were given a consent form to sign and were notified that interviews were being recorded using cellular devices and would then be transcribed for research purposes. Although both interviews varied in their location, date, and time, they were asked similar questions regarding the importance of early literacy. To be specific, they were questioned about the current and past literacy initiatives, as well as the challenges and the success rates of these initiatives. Towards the end of the interviews, students requested that the participants elaborate on key themes they believed were crucial for early childhood learning and the overall importance of tackling literacy problems as early on as possible. Upon completion of the interviews, the themes discussed were then compared to the themes mentioned in the community leader interviews and parent interviews. The information gathered from these comparisons were then used to identify predominant similarities and provide a better understanding of the issues surrounding early literacy.

Community Leaders

As for the community leaders, the objective of the interviews was to not only develop a deeper understanding of what contributes to low literacy rates in our community, but also what resources are needed to curb this trend. The three individuals interviewed, Jennifer Smith, a Policy Specialist with the CYN, Julie Brandl, previously the coordinator of the CYN Services for

[3] See Appendices D through F for interview schedule.

London Public Library, and Shelley Byfield, the director of the White Oaks Family Centre, all possess the ability and knowledge to answer these questions, which is why they were selected. For the community leaders, semi-structured interviews were conducted. The three community leaders signed a consent form, after which they were recorded at separate times and separate locations using a mobile device while being asked a variety of questions. These questions included being asked about their role in current literacy initiatives in the community, the extent to which they have perceived them to be helpful, their challenges, and how they might be improved. Before the interviews were conducted, we were aware that new themes may emerge during the interviews that would then require additional follow-up questions. Regardless, upon the completion of the interviews, the students then transcribed the recordings word for word and found common themes. These themes were then compared to the themes found within the HCP's interviews and the parent interviews to not only identify overarching similarities, but also provide a deeper understanding of the issue at hand.

Parents

While HCPs and community leaders are critical in developing a literacy strategy, it is also important to gain perspective from parents and caregivers themselves. The objective of this component was to examine the extent to which parents or caregivers understand the importance of early literacy, as well as the challenges they experience in encouraging literacy in their children. While the community leaders have careers centred on this issue and therefore understand it well, it is crucial to provide parents with context of the issue as they are the ones who are directly impacted by literacy related policies. In interviewing the parents and caregivers who attended the play group at the White Oaks Family Centre, we successfully accumulated data pertaining to parents' and caregivers' experiences with literacy and community resources.

It was arranged for a group of students to visit the White Oaks Family Centre in order to interview parents. Play groups take place every morning from 9:30am to 11:30am for toddlers, and Wednesday afternoons from 1:00pm to 3:00pm for infants, and all parents and caregivers with children in the community can attend free of charge. To ensure the parents were comfortable with the students being present, the director of the White Oaks Family Centre, Shelley Byfield, introduced the group members and explained the purpose of the research that the students were conducting. Upon doing so, she emphasized that participation was voluntary, and parents may refuse to participate without any risk to themselves or the children they accompanied. To ensure that new joining parents/caregivers were also aware that student researchers were present, Shelley produced a sign which she attached to the front of the playroom door to be seen upon entering, stating that students from King's University College were in the room. The student researchers had minimal, if any contact with the children and did not ask them any questions at any point, adhering to the ethics guidelines.

For this component of the research, students asked two questions, which were as follows: 1) What does literacy mean to you? 2) What resources do you need to better support literacy in your children? The researchers were instructed not to ask follow-up questions, and prior to interviewing any parent or caregiver the students obtained their informed written and verbal consent. To protect the privacy of the parent or caregiver and their children recording was not done on mobile devices. Instead, the researchers took notes of the interviewee's responses, and after, found themes through comparison. Overall, nine parents were interviewed.

FINDINGS

Healthcare Providers

The HCP's that were interviewed offered us great insight on how to approach the declining literacy rates as well as what could be impacting the children's school readiness which in part is due to low literacy rates. Heather Bywaters emphasized adverse childhood experiences (ACE's) and toxic stress in a child's life as an important risk factor for low literacy. Heather mentioned that without prevention poor literacy has further implications later in life, recognizing the importance of it. She expressed that if children have good attachment skills, their literacy will be better, similar to Clare who discussed how social factors were the most important and then literacy. Both Heather and Clare also touched on how detrimental screen time is for children and their attachment to their parents. The interviews made it evident that the best way to get HCP's involved in an initiative is to ensure that what is asked of the HCP is very limited, simple, part of their routine and as straightforward as possible as they already have so much going on. Clare had even stated during the interview, "I think the easier and simpler you can make it for healthcare providers the more likely it is to be successful so not too many decision trees for us," instead she emphasizes the use of preschools and Family Centres: "So I would hope that pre-schools have that enriched environment where there is access to books but also other ways of learning […] and for those families who can't maybe afford that or they're not able to go then other services like library groups and early year centres." As for Heather, when she was asked how she thinks we should go about getting healthcare providers more engaged or what her experience was that did not work for them, Heather stated that, "yeah it's just hard and a lot of physicians take their own education, they're in their own study groups and they do their own kinda thing." Heather also suggested more liaising with community partners and Family Centres. Both Clare and Heather mentioned that speaking to medical students would be a beneficial step to provide them with the knowledge of the importance of literacy and could therefore encourage them to make it part of their routine later on in their own practice.

Community Leaders

Upon further discussion with Jennifer, we began theorizing some potential approaches in terms of HCP engagement. After the interviews with the HCPs and our community leaders, it was apparent that engaging family doctors and physicians specifically should be very limited and will be difficult as mentioned above. We discussed perhaps empowering parents with knowledge surrounding literacy, why it is important, and specifically, what questions they can and should ask their doctors. The relationship between HCP's and community partners could be reciprocal in terms of referral, for instance, doctors could refer a patient to a childcare or Family Centre to access helpful resources, and those centres could also help parents in terms of knowing the right questions to ask their doctor. Getting doctors engaged in a literacy strategy may have to come from more demand from parents; if more parents begin requesting this information, doctors may be more inclined to update their knowledge on literacy resources. Of course, the responsibility is not entirely on the parents. Our community partners can ensure that doctors have the necessary resources available in their offices by providing them with cards, brochures or a poster that is clear, concise and straightforward; per advice from Clare, resources that say "5 steps" or "3 key tips" tend to be most effective. It is important to make sure all resources are easy and quick to read, and not too literacy intensive for parents.

As for Julie Brandl, she has been involved with a wide range of initiatives to assist children and their families and although she has had success, she has also faced challenges. One of the challenges she has faced with previous initiatives was that doctors are presented with the information about literacy, but they do not get the importance of early literacy and do not include it in their practice. To this she says, “Everyone takes their kid to the doctor right? How can we get doctors on? We had conferences, we did we did presentations and [...] and [doctors] don't get it”. Julie also mentioned that a reason for this could be that they are overwhelmed by so much already and have so much to do during appointments in such little time: “they just are overwhelmed by everything else. Yeah, and I think that's probably it so if you have to prioritize, you know, your three-minute visit, what are you going to talk about, vaccinations or reading?” For the HCP’s that do implement literacy strategies in their practice, an overwhelming number are females which represents a larger issue, as not all doctors are females. This has been pointed out by many who were interviewed. Further, and similar to Clare, she suggested talking to medical students to make them aware of the impact of literacy so they can implement it in their practice in the future. Along with others interviewed, Julie also placed a lot of emphasis on how detrimental screen time can be to children; it has become common to see young ones watching tablets to keep them preoccupied. Julie also discussed how there are many Family Centres strategically placed in neighborhoods that can be a great resource for all families, not just those who are at risk. These Centres have access to various resources that can assist families in many different ways. In addition, and this has been another common theme in the findings, Julie acknowledged how impactful poverty can be on literacy and how it can impact an individual in the future and having strong literacy skills can lift someone out of poverty.

Parents

In an attempt to better understand children’s literacy and school readiness, students worked with parents and caregivers of children directly to learn about their experiences, and upon doing so received insightful results. After parent participants responded to the questions, “what does literacy mean to you?” and “what resources do you need to better support literacy in your children?”, several important findings emerged. It was found that most, if not all parents defined literacy as simply reading and writing, with only a few parents expanding on their answers further to include “conversation” and the “ability to navigate the world”. Regardless, there was a majority consensus from the parents that literacy should start at a young age. In terms of the second question, a recurring pattern was the insistence by parents that they already had all the resources they required. Some of the parents commented that they knew what they needed because they are teachers themselves or had parents that were. Notably, parents quickly identified the library as a good resource to support their children’s literacy.

DISCUSSION

Upon completing the interviews and transcriptions with the participating groups, there were several important messages that were evident throughout. Throughout this discussion we will outline the key takeaway points, synthesize the data when possible, and highlight their implications.

Community Resources

Throughout the interviews with HCP’s, community leaders and parents, a discrepancy can be seen within the responses. While HCPs and community leaders touched on social factors, such as

poverty, there were mixed responses regarding how accessible and helpful resources in the community are. To expand on this, it was found that the majority of parents interviewed believed that they had enough resources to help their children excel in literacy. Shelley, one of the community leaders, agreed with this, but said most of the resources are full. On the other hand, Heather, a HCP, had an opposing view saying that resources, such as playgroups, are never utilized to their full potential. Regardless, it was recognized by both HCPs and community leaders that those living in poverty do not have literacy concerns at the top of their priority list. Although the literature states that living in poverty can lead to low literacy rates, these resources do not appear to reach the most vulnerable populations. This is most likely due to those living in poverty needing to be more concerned with the physical health of their children, providing food, and keeping a roof over their head. While Julie stated that strong literacy skills can lift individuals out of poverty, it can then be speculated that those in poverty who are not able to utilize these resources are then not only being left behind, but this could be a substantial reason why literacy rates in London are not changing.

Educating and Empowering Parents

HCPs and community leaders frequently commented on how often children are looking at television and phone screens, otherwise known as "screen time". They expanded upon this by citing how many parents are often not aware of the detrimental impacts screens can have on not only their child's brain development, but the shared attachment between the mother and their child. For this reason, a few literacy initiatives in London have been attempting to promote the message of limited screen time, while also encouraging more face-to-face with their babies. An example of this could be the pamphlets that are available at the London-Middlesex Health Unit. This information is quick, easy to read and outlines five useful ways parents can interact with their child to promote literacy skills through daily routines and activities (i.e., grocery shopping, doing laundry). Regardless, it needs to be considered whether this is truly effective.

With a major theme in the parents' interviews being that they defined the term literacy vaguely, working to empower parents by collaborating with them so they become aware of questions to ask their doctors would further their understanding of the importance of literacy and the resources around them. With HCPs actively knowing what is going on in the community, they would be able to refer families in need to those Family Centres, which may help children in poverty obtain access to these resources.

The Challenges of Engaging Family Doctors

A major theme discussed throughout the interviews with HCPs and community leaders was the fact that engaging family doctors in a literacy strategy has seen limited success for a few reasons. To begin, it was made apparent that our demands of family doctors will need to be extremely small, simple, and straightforward. With there being a shortage of family doctors in London, HCPs have limited time allotted for each patient and most only allow for two concerns per visit. Based on the interviews, we can suggest that a strategy to improve literacy rates should be multi-centred in order to not over rely on doctors for this reason. Heather had mentioned that even when her team had given doctors what they had asked for (a resource card on children's mental health) they still did not use it. The will for family doctors to engage in a literacy strategy may have to come from a demand by parents because if more parents start to ask their doctors about literacy, they may be more inclined to have more resources in their office and update their

knowledge on Family Centres. The goal is to ensure that family doctors understand that we are aiming to make it easier for them by helping their patients with questions surrounding literacy, not burden them more with large demands.

LIMITATIONS

Although we obtained meaningful information through our interviewing process, it is important to disclose that this research utilized a convenience sample, which is not impartial and may bias the data, making it a primary limitation. It could be speculated that the majority of the parent participants who were interviewed claimed that their children's literacy resources were satisfactory due to them participating in a free service tailored to their children's literacy at the time of the interview, and in turn, deterring any criticism of the service. In addition, we obtained a portion of our data from interviewees whose careers are dedicated to the enhancement of child literacy. By interviewing individuals who work within the field we are researching, it needs to be recognized that this may facilitate subjectivity in responses, as the interview participant may feel inclined to embellish their own hard work and dedication to the cause. They also already recognize the importance of literacy, meaning it may have been more beneficial to speak with individuals who are not centring their work around the promotion of literacy.

Further, a pragmatic limitation was the time allotment for data collection. Although researchers aim to be as objective as possible, under the stringent time constraints given, a convenience sample was the only feasible method in which we could achieve the desired goal. This impacted our ability to have a representative sample, with everyone, except two parents, being female. The gender bias and difference should be further examined, perhaps by interviewing a male HCP or community leader, in order to better understand the implications this gender difference could have on strategy development. Nonetheless, the data still acts as critical information for which we can implement into our policy report for the CYN.

CONCLUSION

The Qualitative Team had the overall objective of assessing literacy and school readiness needs in our community and how they can be met through an early literacy strategy involving HCPs and other community partners. Through interviews with relevant healthcare providers, community leaders, and parents, three main takeaway messages became apparent. These three messages are: 1) that there are discrepancies in how accessible community resources are, and that those in poverty are not receiving the benefits of these services, 2) that parents need to not only be more educated on issues pertaining to literacy, but also should be empowered by the community so that they can obtain the information they need, when they need it, and lastly, 3) that there are significant barriers blocking us from fully engaging HCPs in a literacy strategy, therefore making it clear that we should aim for limited engagement. It is with this information that we propose a multi-centred approach that engages HCPs, Family Centres and parents to promote early childhood literacy skills and school readiness. These findings have been consistent with other components of this research, therefore supporting the class strategy further. To be specific, the literacy engagement strategy that we are proposing heavily relies on already existing community relationships which are discussed later in this report.

LITERACY STRATEGY

Literacy Now, Equality for our Futures: A Grassroots Literacy Movement Engagement Strategy

STRATEGY

The grassroots literacy movement is a student and volunteer-based engagement strategy that seeks to connect the Child and Youth Network (CYN) with local education boards and other community partners to collaboratively implement a feasible plan that will increase the promotion of literacy to families with young children in London. This engagement strategy will build on existing community support for literacy by utilizing services already in place such as *Baby's Book Bag* and the *Healthy Words Pilot*. The Family Centres in London will be the focal point of this strategy due to their connection and engagement with families in various neighbourhoods, the wide range of services they offer for children and parents, as well as their focus on family health and wellness, of which family literacy is a key determinant. The literacy movement will apply a holistic and multi-pronged approach targeting high-risk areas in London that were identified through the development of community profile maps and environmental scans.

High School Co-Op Program

The purpose of implementing a co-op program that involves high school students is to expand on the community partnerships that already exist between the CYN and the local school boards, including the Thames Valley District School Board (TVDSB) and the London District Catholic School Board (LDCSB). Previous literacy strategies that were implemented across Canada proved to be successful when local school boards were involved in literacy programs (Thomas 1998). Family literacy programs began to appear across Canada in the early 1980s (Thomas 1998). According to Thomas (1998), family literacy programs were established in all territories and provinces by 1997. Oftentimes, these programs were spearheaded by local school boards, including the Toronto District Catholic School Board, which is known for launching one of the longest running literacy programs in the country through the Parenting and Family Literacy Centres that began opening in 1981 (Gordon 1998). In Nova Scotia, the provincial department of education played a key role in supporting literacy programs in the 1980s and 1990s (Helliwell 1998). In Saskatchewan, the Saskatoon Catholic School Board helped to establish the St. John's Parent Support Centre in 1995 (Sieben 1998). According to Sieben (1998), the Centre thrived and made a notable difference in the lives of community members. In Quebec, literacy programs achieved considerable support from local school boards, including the Sault Saint Louis School Board, that implemented the *Learning With My Child* literacy program in 1991 (di Vito 1998). This was a school-based family literacy program that focused extensively on volunteer tutors over the age of eighteen (Di Vito 1998).

This literacy engagement strategy considers the lack of funding available for the project. It also moves beyond short-term planning by omitting donations as a project requirement. Although funding can prove to be a helpful resource, donations may not support or have the ability to secure ongoing funding for family literacy programs. Therefore, it is important to implement a literacy strategy that is solely dependent on volunteers and students with academic incentives to complete the project. The decision to collaborate with co-op students, as opposed to high school students more broadly that require forty hours of community service, is to ensure continuity and commitment to the literacy strategy. Students in co-op classes will be engaged in the literacy

programs for the duration of their course, which approximately consists of five months in one semester.

Students will be provided with training materials that will consist of written information and workshops at the Family Centre. The training materials will contain information based on the CYN's mandate and information specific to working with families with young children. Initial sessions might include opportunities for students to shadow Family Centre staff and help with setting up and taking down daily programs and activities. Students will report to Family Centre staff and personnel and will write daily logs of their experiences. Eventually, students will learn to read to children and play a larger role in overseeing classrooms and playrooms. This will also alleviate some of the pressure from the two certified workers at the Family Centre.

Teaching Candidates Program

Students at Althouse College, the faculty of Education at Western University, represent a great opportunity for increasing qualified and supplementary support at Family Centres that will not require funding or the use of additional resources. Teaching candidates are required to fulfil two Alternate Field Experiences (AFEs) during the final year of their studies. The AFEs are full-time volunteering positions that students apply for within local organizations and community centres. Each student is required to spend seven weeks in their AFEs, split between both semesters. Given the vast nature of services provided at the Family Centres, they would be a suitable and desirable choice for students seeking AFEs. These AFE programs are designed in a way that requires minimal additional work or resource allocation from the host organization. Therefore, Family Centre staff would only be required to set expectations for the teaching candidate, provide them with meaningful work, and fill out a short questionnaire at the end of the student's placement.

Literacy programs across Canada that involved university and post-graduate students were proven to be successful, especially in working one-on-one with children who have low literacy skills, because it allowed children to develop prosocial bonds with adults other than their parents (Hayden and Sanders 1998). In 1995, *Prospects* emerged as a literacy program in Alberta that engaged university students and collaborated with health and educational agencies in the community (Hayden and Sanders 1998). One part of the program was called *University Liaison* and involved partnering university students with children for a period of thirteen weeks, during which time the university students worked one-on-one with children who had literacy difficulties (Hayden and Sanders 1998). Another part of the program involved collaboration with public health care units where university students volunteered to read to children who were attending the health units for immunization or other health-related matters (Hayden and Sanders 1998). Hayden and Sanders (1998) note that students from the University of Alberta were the key community partners involved in this literacy program and were essential to its success and longevity. They also note that evaluation records were made possible to test the effectiveness of this program due to the help of graduate students, which is usually challenging for programs with limited resources (Hayden and Sanders 1998).

Other literacy programs also engaged students, although in a less formal manner, including the program implemented in Toronto through the Parent and Learning Family Centres (Gordon 1998). In the mid-1980s, students volunteered to teach parents how to use computers that were donated, in the centres or in computer labs (Gordon 1998). The literacy program established in Quebec by

the Sault Saint Louis School Board was largely dependent on volunteer tutors (di Vito 1998). While the author does not specify engagement with students at the university level, they do mention that there were student volunteers in the program who were paired with families through the program coordinator (di Vito 1998). The author also notes that the program utilized tutors in a unique way where they were able to use their strengths to help families involved in the literacy programs, such as the level of energy that students often shared with the children they were paired with (di Vito 1998). The literacy program in Saskatoon also mentioned establishing a strong community partnership through the generosity of centre staff and students (Sieben 1998).

In Prince Edward Island, three Mi'kmaw communities on Lennox Island partnered with university students to develop a literacy program in the early 2000s (Timmons et al. 2018). The university students primarily took on the role of researchers that were tasked with assessing the effectiveness of the program. The principal of one of the three elementary schools in the area hired two facilitators for the program that were recent education graduates. Through the school principal, the graduates and university research students were able to maintain ongoing contact and build a relationship that was pertinent to the longevity of the literacy program (Timmons et al. 2018).

In Cambridge Bay, Nunavut, an after-school program was developed in the local library where high school students helped children with their homework (Crockatt and Smith 2000). While the nature of the program suggests that the children were likely older than those being targeted by this literacy engagement strategy, it is worth mentioning that the program exemplified the importance of community partnerships to help children increase their literacy skills. The community partners included the Cambridge Bay Childcare Society, elementary and high schools, Arctic College, the local library and the Nunavut Literacy Council (Crockatt and Smith 2000).

Since teaching candidates in London are expected to set up their own AFEs, implementing an active recruitment strategy to target these students is suggested. Althouse College requires community partners to notify them if they are interested in hosting students for the upcoming semester. The names of organizations and brief outlines are then posted to help students decide which placement opportunity is most suitable for them. Establishing a connection between Family Centres and the Education Student Council at Western University will allow for further promotion of the Family Centres as well as increased opportunities for accountability and growth of literacy programs through ongoing feedback between students and Family Centres regarding programs that were successful and programs that require improvement.

Including both teaching candidates and high school students will allow for a greater variety of literacy programs at the Family Centres. Teaching candidates are more focused on learning how to be teachers. They would therefore have more autonomy and responsibility in terms of assessing and developing teaching programs for families with young children. While high school students might be more involved with literacy programs that focus only on children, teaching candidates might be better suited for programs that are designed for increasing parents' literacy as well as parent-child interaction. Involving both high school and post-graduate students will allow for a more holistic approach to the literacy movement by including a variety of literacy programs and activities. It will also expand the promotion of Family Centres by simultaneously involving two sub-populations of the local community that have unique opportunities to reach out and connect to other community partners.

Family Centres

The literacy strategy will combine volunteer efforts with a prominent community organization that focuses on family health and wellness. It is important to have a central structure to house the literacy strategy and the Family Centres serve as an ideal location to implement literacy strategies that seek to improve the lives of families and their children. It will also serve to promote Family Centres to individuals in the local community that would benefit most from their services. The Family Centres are attached to either a public or Catholic elementary school. Many of the resources they offer are shared across all family centres, while a few are unique to a specific centre. The Family Centres are staffed by Community Connectors who play an important role for providing information regarding services that require registration, such as programs offered through the Middlesex London Health Unit (MLHU). The Centres are deeply committed to literacy initiatives for families. Prior to the Centres being built, extensive planning and discussion is conducted by community partners to determine which resources are most beneficial to the specific neighbourhood that the Centre is located in. Numerous organizations are asked to provide input. Families will be able to view these literacy programs as resources available to them in a holistic and community setting. The Family Centres provide accessible and central locations within London neighbourhoods that facilitate cooperation. Qualitative studies that were conducted highlighted the importance of empowering families and parents of young children with the knowledge and resources they and their children need to improve family literacy.

Target Area

Environmental scans for London were conducted in order to identify the amount of readily available public resources for families in each neighbourhood. This information was compared to neighbourhood profiles in order to determine which areas had a high risk of low literacy rates for children between the ages of 0 to 6. The resources included were those that were available to children in the target age group and they were related to literacy as defined by the CYN.

The community profile identified high risk neighbourhoods according to the percentage of children living in poverty, children's Early Developmental Instruments (EDI) scores, percentage of immigrants and newcomers, and parental education and income. EDI measures were used to measure children's developmental rates by the time they begin pre-school. EDI scores are important when assessing literacy rates because they assess language and cognitive skills among children between the ages of zero to six. EDI scores were geographically examined in London. The results indicate that children living in the White Oaks and Carling areas have the highest risk of developmental setbacks and low literacy skills. Furthermore, White Oaks, Argyle, Carling and East London are all high-risk neighbourhoods, with a medium to high amount of weekly resources available that could provide children with literacy-rich environments, with the exception of East London which only has two publicly available resources.

While keeping the local profile in mind in order to target the literacy movement to the most vulnerable population groups that require greater community support, it was important to select a Family Centre for this strategy that was located in an area near at least one high school, preferably one from each school board. While White Oaks was determined to be high-risk, their Family Centre was not located near a high school. This might create barriers for co-op students that will then require additional resources to cover transportation costs. Therefore, the Carling-Thames Family Centre was selected as the initial centre to host the literacy engagement strategy due to its

proximity to vulnerable populations as well as high school students. Monseigneur-Bruyere Ecole Secondaire Catholique is less than one kilometre away from the centre and John Paul II Catholic Secondary School is approximately 4.6 kilometres away from the centre. The former is part of the French Catholic school board, Conseil Scolaire Providence, while the latter is part of the LDCSB. Furthermore, London Central Secondary School is 4.1 kilometres away from this centre and H.B. Beal Secondary School is 3.8 kilometres away from the centre. These schools are part of the TVDSB.

Local Public Health Units (PHUs)

Inclusion of Public Health Units (PHUs) has proven to be an effective way to achieve targeted universalism in previous literacy programs in Canada (Hayden and Sanders 1998). In Alberta in the early 1990s, the family literacy program expanded to involve the PHU by having university students engage with parents and their preschool children during their visits to the clinic for immunization shots and other health-related matters (Hayden and Sanders 1998). In Ontario, PHUs receive provincial funding for two public health nurses that focus primarily on the social determinants of health (Raphael and Sayani 2019). There are currently thirty-five public health units (PHUs) in Ontario that receive funding from the Ministry of Health and Long-Term Care (MHLTC), but no guidance or support when it comes to planning programs that address social determinants of health such as family literacy (Raphael and Sayani 2019). Despite the lack of support and guidance, individual PHUs have previously taken initiative to create programs that other PHUs in the province have adapted and implemented in their communities. One of the initiatives involved the creation of a video that aimed to increase public education on the social determinants of health with the hopes of creating community advocacy through partnerships with local organizations (Raphael and Sayani 2019). The 'Let's Start a Conversation About Health … and Not Talk About Health Care At All' was spearheaded by the PHU in Sudbury and eventually adapted by seventeen other PHUs in the province in a way that was unique to each community (Raphael and Sayani 2019). Implementing a literacy strategy that actively involves the Middlesex London Health Unit (MLHU) allows this grassroots movement an opportunity to scale-up efforts once they gain momentum in the local community.

Partnering with PHUs is a better use of literacy resources than focusing on primary care physicians (PCPs), where programs are likely to be stuck in silos, without spreading and getting to people who need them most. Studies have revealed that PCPs in London are not situated in the most vulnerable areas that have the highest need for public health resources. These are the same populations that are likely to require special attention regarding family literacy programs. A foundation has already been built within the local public health system that has the potential to be revamped with a carefully coordinated literacy project. The family centres that students will be involved with have established ties to the MHLU and can therefore assist in transitioning students to volunteer with MHLU staff, in order to expand the literacy strategy beyond the Family Centres.

PHUs also have two public health nurses that visit new-born parents. Student volunteers can accompany them and obtain permission from the hospitals to present family centre brochures and pamphlets along with a *Baby's Book Bag*. This strategy is largely modelled from the literacy project in Alberta that began on January 1, 1992, at the Cardston Municipal Hospital (Hayden and Sanders 1998). Hayden and Sanders (1998) note that volunteers were significant in this

project because they gave out book bags to parents with new-born children at the hospital and provided the program with follow-up evaluations that assisted with gauging the effectiveness of the literacy project. The overall aim in Alberta was to combine education and healthcare professionals with volunteers in a community-centred literacy program (Hayden and Sanders 1998). Another point worth mentioning is that it was the only literacy program at the time that was entirely dependent on volunteers and it received very positive feedback from the health care workers at the PHUs where students volunteered (Hayden and Sanders 1998).

Similar efforts can be made possible in London through student volunteers at the MLHU. Volunteers can explain the literacy programs and the overall importance of children developing literacy skills from birth. They can show the parents some of the resources available to them through the Family Centres and encourage them to utilize the resources right away. Parents should also be informed that they can use the Family Centres to improve their own literacy as well and learn how to interact with their newborn baby. Engaging student volunteers in hospitals to provide information about the Family Centres is essential to broadening the number of families that have knowledge of these centres. This is especially important given that the Family Centres are able to connect families to a wider range of services that might require filling out applications and registration forms.

Qualitative interviews with health care providers in London revealed that they strongly believe that increasing engagement with Family Centres and community partners in literacy programs will prove to be more effective than focusing primarily on PCPs. Rather than asking health care providers to implement literacy programs, student volunteers could implement an outreach program where they attend clinics and ask doctors or their administrative staff if they would be willing to provide referrals to the Family Centres and house brochures in their waiting areas that parents can access. Providing PCPs with cards, brochures, or posters that are clear, concise and straightforward was identified by health care providers as being extremely helpful. These informational tools should promote the importance of family literacy through messaging that uses quick and easy steps.

Outreach Programs

While the focus of this literacy movement is a curriculum for high school co-op students and teaching candidates at Western University, it is also important to engage in various outreach programs at the same time. In addition to students being required to submit daily logs of their activities, they will also be asked to collaboratively organize and update a social media account that attracts attention to the literacy movement. This account can be monitored by their co-op teacher. Students will be asked to encourage staff and personnel that they interact with to share their social media posts and promote the literacy movement hashtag in order to increase awareness of the grassroots literacy movement. The CYN also has informative materials for family centres, such as cards and brochures, that can be distributed locally in community centres, shelters, libraries, **a**nd foodbanks, among other locations. This outreach effort can be part of a targeted blitz campaign involving both high school co-op students and teaching candidates to continue increasing awareness of the grassroots literacy movement in London.

CONCLUSION

This project will be most effective if understood as a literacy movement. The prongs of this literacy strategy include a high school co-op program, a teaching candidate program, public health practitioners collaborating with student volunteers, social media outreach and occasional public awareness blitz campaigns in high-risk neighbourhoods. Mobilizing young people in the community to engage with literacy programs will be most effective if it is recognized as a collective and empowering movement that seeks to reduce the literacy problem that London is currently experiencing. As a grassroots movement, empowering London residents with the resources and connections that are needed to develop strong community ties is crucial for the success of the project. Operationalizing a co-op program with three of the four local school boards will integrate high school students and Family Centres in London. This will allow for meaningful connections to be built that will eventually improve the visibility and accessibility of Family Centres. Increased promotion of the Family Centres will hopefully improve the health and wellbeing of families and lead to a healthier and higher standard of living for the entire London community. A guide to implementing this movement can be found on the next page, and will further assist in understanding how this movement is to occur.

LITERACY STRATEGY: WORK PLAN

The objective of the work plan report was to provide the CYN with a guide of how to implement the *Grassroots Literacy Strategy.* The work plan team communicated with our community partner, Jennifer Smith, to inquire about what is usually included in a CYN work plan. Jennifer provided us with past examples but emphasized that we should customize our plan to fit our strategy's needs. Key components of the work plan that were included are: each phase of the project, the major tasks, smaller activities that need to be completed within each task, the lead of each task, and estimated timeframe for completion of each task. Each of these components are represented in a column in the table below. It should be noted that vague suggestions were inserted by the team for the columns labelled "lead" and "timeline", and that more information should be added by the group that will be taking on the strategy to ensure things are completed on time by the correct person. Many appendices are referenced throughout the plan. These were created to supplement the work plan and provide suggestions for the considerations shown in the table. There are a series of paragraphs following the workplan that provide more context and justification of why each task was recommended.

The following work plan provides guidelines for the development and implementation of the Grassroots Literacy Movement:

Project Phase	**Major Tasks**	**Activities**	**Lead**	**Timeline**	**Status /Comments**
Research and Development	Review report presented by Dr. Comeau's "Building healthy communities" Class.	-Major sections include literature review with quantitative data, qualitative interview report, community profile report, environmental scan report, public policy context report. -Determine if the target neighbourhood aligns with CYN's future goals. -Determine if Carling-Thames family center has the capacity to incubate this program.	Jennifer		
Staffing and Organization	Find someone to lead program.	-Present Grassroots Literacy strategy to community connectors of family centers with the goal of finding someone to lead the initiative. -Present strategy to leads and working groups of relevant initiatives (**Appendix G**) with the goal of finding a partner interesting in leading initiative. -Determine if project will have a singular coordinator or responsibilities will be spread across multiple roles. -Determine if hiring a volunteer/project coordinator is appropriate	Jennifer		
Student Engagement and Training	Finalize Key Roles and responsibilities of students	-Summary of these from Grassroots literacy Movement in **Appendix H.**			

		-Determine if other roles should be added or modified			
Preparation	Connect with secondary and postsecondary programs in London.	-Connect with School boards: Thames Valley District School Board (TVDSB) and the London District Catholic School Board (LDCSB). List of high schools within the Carling neighbourhood in **Appendix I.** -Connect with Fanshawe College, preliminary list of relevant programs and contacts in **Appendix J.** -Connect with Faculty of Education at Western (AFE)		3 to 6 months before the beginning of desired semester	
	Determine proper training protocol for students	-Use existing resources to create training module for students (Student Report, CYN Agenda, Community connector training sessions) -Student outcomes for training presented in **Appendix K**			
Operation/ Management **Ongoing support for the overall operation of the project includes contact with students**	Determine which certifications and/or paperwork students will have to complete.	-Police checks, CPR, high five certifications are all potential requirements that should be considered. Also, important to consider if TB tests or vaccines are required. -Assign pairing of college and high school students to work together throughout the year -Create a skills and interests assessment document or informal interview/discussion to		With in first week of student placements	

	Work with students to identify potential specialized roles.	identify unique ways each student can contribute. (a student wanting to focus on social media, communications, leadership role etc.)		Scheduling and location decisions can happen throughout the semester	
		-Determine if t-shirts, hats or name tags can be made to show that the students are affiliated the Family Centers.			
		-Locations and timing of blitz days.			
	Determine ways to present students to public	-Find out if high school students can contribute to the Co-op outside of school hours.		Within the first week of student placement	
	Utilize CYN community partnerships to create schedule	-Locations of outreach and days for outreach. Doctor offices, Walk-in Clinics, public health centers, city events, foodbanks, shelters and parks are recommended. A list of community centers and some of these spaces can be found in **Appendix L.**			
	Determine method of monitoring students	-Create system to monitor students throughout the semester. Consider reading daily/weekly logs, laying out expectations of supervisor-student relationship and communication, testing them on knowledge of family centers before completing outreach etc.			

		-Address safety concerns of students being in community. Consider emergency contact plans.			
Evaluation **Assessment of all phases of the project**	Determine evaluation needs and components	- Related existing outcome indicators within the CYN agenda have been identified in **Appendix M** -Determine if more measures are needed specific to this initiative -Determine way to receive ongoing feedback from students about their experience in this initiative -Determine if students should collect feedback from community about their awareness of community centers		Before placement begins, and ongoing throughout the semester	

Research and Development phase. The major task of this phase is to review the full policy report that Dr. Comeau's *Building Healthy Communities'* course has developed. This will allow Jennifer and respective team members to decide what parts of it align with the CYN's other current project and initiatives. At this stage the recommendation of the Carling-Thames Family Centre should be assessed. Using information from the policy report and knowledge of other initiatives the CYN is operating, they should determine if they agree to target this neighbourhood and if this centre has the resources and capacity to incubate this initiative.

Staffing and Organization. The major task of this phase will be finding someone to lead this strategy. The *Grassroots Literacy Strategy* recommended that a community connector or public health nurse could potentially supervise the students. The strategy will have to be presented to many people to find someone interested in taking it on. The workplan team identified existing CYN initiatives that have similar goals. If it is not possible for one person to take on this initiative, it may be possible for an existing team to use the *Grassroots Literacy Strategy* to "scale up" their initiative or lead it as a complimentary initiative. All of these initiatives have similar outcomes and goals. Once the interest level of the strategy has been assessed the people involved can work to decide the leadership roles that will be needed to organize the strategy.

Student engagement and training. The first major task of this phase is to finalize the key roles that will be offered to the Students. This is important because it will allow you to communicate with schools and find the programs that best fit this placement. There is a preliminary summary of the roles presented in the G*rassroots Literacy Strategy* in **Appendix H**.
The second major task is connecting with the high schools, Fanshawe college, and teacher's college which will be required to make this initiative succeed. High school co-op programs can take place almost anywhere in the community during specified hours. The activity needed here will be to communicate with schools, potentially teachers and guidance counsellors, in order to promote the Family Centre as a worthwhile placement opportunity. The high schools in the Carling neighbourhood can be found in **Appendix I**.

The work plan reached out to one of the placement coordinators to ask about the general process of hosting placement students from the community services programs. This will include the family centres reaching out to the placement coordinators to establish if the placement fits the needs of the programs. The Fanshawe website has a list of the eligibility requirements of each program. The workplan team identified the Community services department has likely having the most relevant programs. The following is a list of Fanshawe placements that are relevant to this literacy strategy.

The Child and Youth Care placement requires the student to complete a variety of tasks such as locating and critically evaluating community resources for programs and activities as appropriate, connecting children, youth, and families to them, develop therapeutic relationships with children and youth while maintaining appropriate boundaries, etc.

The Early Childhood Education placement students must develop caring and nurturing relationships with children birth to 2 years, which is part of the target population this literacy strategy focuses on. They also must work with children, families, and community in a variety of early years settings, they must demonstrate knowledge and professionalism in child development

and best practice in early childhood, and they must provide safe, supportive learning environments for children birth-12 years. All the requirements for this placement directly relate to the goals of the literacy strategy.

The Human Services Foundation placement requires students to demonstrate the ability to relate to people in basic helping situations in a positive and supportive manner, serve as an advocate to communicate to others, the needs of the specific population served, work collaboratively to support individuals to realize their full potential, etc.

Lastly, *the recreation and leisure services placement* require students to design, plan, implement, and evaluate activities and/or projects and events. This aspect of this placement would be great for the blitz-campaigns as the Fanshawe student could take the lead and supervise the high school co-op students. This placement also requires that the student brings new ideas and technology skills to the organization. With this being said, the student can be innovative and help with the pilot program as well as help manage the social media account the high school students have to post to. If the Child and Youth Network would be interested in getting funding for this project the placement student also must investigate grant opportunities and write proposals while also organizing and leading fundraising events.

Operation and Management. This phase shows the activities that will be required to ensure smooth operation and management once the student have been recruited.

The first major task is to work with the students to establish a semester plan. This may include pairing high school students and College students together to allow the college students to take a leadership role. Talking to the students to identify their unique skills should also be an activity in order to ensure that you are utilizing everything they have to offer. This could include finding out that a student has strong graphic design skills and would like to contribute to the visuals of a social media account, or someone wanting to take on a role of communicating with other organizations to plan outreach and blitz events. This is a crucial activity in the work plan because it maintains the “grassroots” principle of the strategy. Working with these students in a way that gives them some freedom has the potential to empower them and offer new innovative ways that the students can connect the community with the family centres.

The second major task will be creating a schedule which should be created that utilizes the existing connections the CYN has for the semester. A list of community centres can be found in **Appendix L**. These locations can be used as outreach locations for any day, but we recommend that the organization is reached out to in order to be a part of any events, fairs, or markets that may be happening in these centres. To align this strategy with the original health care engagement we recommend identifying walk-in clinics and public health centres in the area, this will allow students to reach the broad range of parents accessing these services with their young infants.

The last major task of this phase is to establish how the monitoring of students will occur. The *Grassroots Literacy Strategy* recommends that the students create daily logs via social media to communicate the work they are doing. This recommendation should be assessed to consider if daily logs are necessary or if other methods should be considered. The supervisor and students

should have clear expectations about how they will communicate and stay accountable. This can also include specific rules/guidelines about how they should represent the Family Centres in public spaces. The last activity of this task is to determine what safety measures need to be implemented for the students who are working in the community.

Evaluation. The major task of this phase is to determine how to evaluate the program. The overall outcomes from both the "making literacy a way of life" and "creating a family centred service system" that can be applied to the *Grassroots Literacy Movement* can be seen in **Appendix M**. The existing measurement indicators From the CYN agenda that correspond to these outcomes can be seen in a table in **Appendix N**. Two other forms of evaluation should be considered as well. Student feedback surveys, interviews, or check-ins can gather feedback from the student about experiences in the community and how the interactions have been going. This information can be used to change the schedule and goals of the program in real time. It may also be beneficial for the students to ask community members they interact with specific questions that can be used as data for an evaluation. Asking if the community member has heard or been to a Family Centre before, if they would be interested etc. This information will allow you to evaluate the outreach locations based on whether you are finding the "unconnected" people or not. This is an example of where a college student could take a specialized role of compiling that data for the strategy.

LIMITATIONS[4]

Many of the limitations to this study were discussed in specific sections of this report, but this section will take the opportunity to combine and discuss them overall. Viewing the limitations in a comprehensive manner places the them into specific areas: they occur as a result of available data, available sample groups, or because of time constraints.

First, the data available to analyse this issue limited this study due to the variables it included or excluded, the age of the data, or the manner in which it was presented. Because of this, we have had to use caution in interpreting the causation of literacy scores and its outcomes (much like the chicken and egg scenario, we can say with confidence we believe poor literacy causes poor mental health outcomes, but we cannot claim this as true definitively). Longitudinal studies examining this area would assist in reaching a more conclusive answer. In addition to this, identifying areas of the city of London with low resources does not encompass the lived reality of the citizens going outside of their immediate area to access resources in other neighbourhoods. Due to privacy reasons it was not clear in the qualitative interviews if the parents were accessing the Family Centres in their immediate neighbourhood, or if they were accessing a Centre outside of their neighbourhood.

Due to the limited resources and time constraints, the research was conducted over a short period of time. While all of the Family Centres are open to everyone in London, there is no way to know how many people actually accessed those resources from inside or outside of the neighbourhood. This could negatively affect families that live in an area with a high traffic Family Centre as there may not be enough resources for them, and they may not have the means to access centres in other neighbourhoods. This in turn would make it difficult to make critical connections that they may need for their children.

Secondly, while also a limitation for available data, qualitative data was gathered using a convenience sample: those interviewed were "conveniently available" due to them already accessing services at Family Centres, or were contacts made through the Child and Youth Network. This does lend to a degree of bias (ex. parents speaking well of their children's achievements just to feel validated, embellishing the work done to make their profession/work seem important, etc.), however within the bias we are able to identify areas to investigate in future studies. Also, as a result of the convenience sample, the majority of the interviewees were female, which draws attention to the need to seek out male caregivers and professionals during future research. It would be beneficial to interview parents/caregivers at all Family Centre locations to see how they feel about accessing the resources available and the ease of using the Centres in general. The goal would be to reach parents and caregivers who are unaware of how to access and utilize the resources that are available to all families in London to best combat the literacy crisis in our city. If only specific people are using the Family Centres and their resources, there is an entire population of the city that may not know how to access these critical literacy rich environments for their children.

[4] We would also like to acknowledge the Covid-19 pandemic: this caused limitations during the research process itself and may also create difficulty in implementing the Work Plan at this time.

Finally, time constraints can be seen as the primary limitation for this study. With more time, this study could have addressed some of the limitations such as the gender bias and size of the convenience sample. Also, the quantitative data could have been analysed more thoroughly by including additional variables that may have resulted in a more comprehensive understanding of literacy and its causes and outcomes. It would also be imperative that a large sample of parents are interviewed - due to time constraints the sample size was very limited. This would have provided a broader interpretation of the data that we collected as to how parents in all areas throughout the city felt about their child's literacy and whether they were aware of the resources that were available to them. Especially in the most high-risk areas that have been highlighted throughout this report.

CONCLUSION

Despite interventions, literacy rates remain low in the city of London. As highlighted in this report, literacy is shown to be imperative to one's ability to fully participate within their community. Originally, the goal of this project was to identify ways to engage the city's health care providers in a literacy strategy with the aim of combatting the low literacy rates in the city. However, a combination of findings by the eight committees identified this would be an ineffective approach for the city. For the City of London, a more effective approach would use existing programs with the aim of creating and maintaining connections. Using existing programs allows for the inclusion of both our target population (0-6-year-olds) but also of their parents and caregivers. Offering comprehensive and hands-on programs and services to parents and caregivers allows them to properly support their children's growth. To address the literacy problem within our community a collective effort should be taken.

This collective effort can be accomplished by creating relationships between local high school co-op programs, the local teaching candidates' program at Western University, Family Centres, postsecondary programs at Fanshawe College, and the London Public Health Unit a comprehensive literacy approach that empowers the residents themselves can be fostered. In addition to creating and maintaining these relationships, high-risk areas have been identified which allows for a more focused approach to the implementation of a grassroots literacy movement: *Literacy Now, Equality for our Futures*.

APPENDICES

Appendix A - Community Profile

	EDI - % vulnerable in language and cognitive development	Total % of immigrant families	% of children < 6 living in low-income families	% of population age 15+ with no certificate, diploma, or degree
ONTARIO	6.7	51.1	19.8	17.5
LONDON	9.5	22.0	26.5	16.0
ARGYLE	9.5	15.0	40	25.0
BOSTWICK	6.3	N/A	15.4	13.0
BROCKLEY	N/A	21.0	0	27.0
BYRON	2.7	N/A	4.1	9.0
CARLING	10.6	22.0	47.3	23.0
CENTRAL LONDON	15.2	21.0	33.3	15.0
CRUMLIN	N/A	11.0	N/A	20.0
EAST LONDON	10.1	11.0	42.9	21.0
FANSHAWE	N/A	28.0	N/A	17.0
FOX HOLLOW	5.9	35.0	N/A	8.0
GLANWORTH	N/A	12.0	N/A	16.0
GLEN CAIRN	5.6	23.0	45.9	23.0
HAMILTON ROAD	4.9	14.0	24.1	27.0
HIGHLAND	4.2	N/A	32.8	15.0
HURON HEIGHTS	6.6	24.0	30.7	23.0
HYDE PARK	3.4	32.0	6.4	10.0
JACKSON	4.2	27.0	4	14.0
LAMBETH	3.2	N/A	N/A	13.0
LONGWOODS	N/A	N/A	16.7	18.0
MASONVILLE	4.1	29.0	12.5	9.0
MEDWAY	6.2	26.0	27.6	12.0
NORTH LONDON	1.9	13.0	12.1	9.0
OAKRIDGE	2.2	20.0	12.5	12.0
RIVERBEND	N/A	16.0	N/A	7.0
SHARON CREEK	N/A	N/A	N/A	19.0

SOUTH LONDON	5.3	N/A	15.5	12.0
SOUTHCREST	8.3	N/A	31.6	20.0
STONEY CREEK	4	29.0	21	12.0
STONEY BROOK	1.7	18.0	N/A	10.0
SUNNINGDALE	N/A	28.0	5.9	11.0
TALBOT	4.3	N/A	7.7	10.0
TEMPO	N/A	N/A	N/A	28.0
UPLDANDS	5.4	33.0	35.6	12.0
WEST LONDON	2.9	30.0	34.8	13.0
WESTMINSTER	9.7	22.0	20.5	21.0
WESTMOUNT	6.6	N/A	28.7	14.0
WHITE OAKS	14.4	N/A	36.4	21.0
WOODHULL	18.2	13.0	40	9.0

Appendix B - Environmental Scan

The numbers in brackets refer to the number of readily available resources. Only programs not requiring registration contributed to the amount of 'readily available programming' which are what is communicated on the Map.

Argyle (9.25)

The East London Library provides the program Storytime! It includes learning stories, songs, rhymes and more to promote literacy. A play time to meet other families and children is available afterward. This is for babies and children age 1 plus and is offered once a week.
Family Centre Argyle

Family Centre Argyle

The Family Centre Argyle is located in Lord Nelson Public School. This Centre has numerous resources available for children between 0 to 6 years of age, many of them being drop-in programs which do not require registration. The Infant Playgroup, which focuses on children from 0 to 12 months occurs two Thursdays a month. This centre also has EarlyOn Playroom hours available Monday and Friday from 9 -12 and Tuesday through Thursday from 9 - 4:30. Middlesex London Health Unit (MLHU) Healthy Start Infant drop-in occurs four times a month for infants from 0 to 6 months old. The MLHU also has prenatal classes called Smart Start for Babies and an Infant Hearing Screening Program, but both of these programs require registration. The Thames Valley Preschool Speech and Language Program offers tykeTALK which is available by appointment only. Vanier Children's Services offers a group called Parent and Infant Relationship Clinic (P.A.I.R) which is offered twice a month, and a parent who is interested must inquire to the Community Connector for more information. Storytime! at the library is in collaboration with the East London Library and is offered one Friday a month. Singing Through the Years is a music program that involves children 0 to 6 years of age, their parents, and the residents of Dearness Home in London. This program is offered twice a month. La Ribambelle offers two programs through the centre for French families, one is an Infant Playgroup offered twice a month and the other is called ABC en Francais which is offered once per month. Both of these programs are open to all families in London.

Location	Program	Age (years)	Weekly Availability	Registration
East London Library	Story Time!	1+	1	N/A
Argyle Family Centre	Infant Playgroup	0 to 12 months	1	N/A
	EarlyOn Playroom	0 - 6	5	N/A
	Healthy Start Infant Drop-in - Middlesex London Health Unit (MLHU)	0 – 6 months	1	N/A
	Singing Through the Years	0 - 6	0.5	N/A

	Infant Playgroup- La Ribambelle	0 – 12 months	0.5	N/A
	ABC en Francais - La Ribambelle	0 - 6	.25	N/A
	Smart Start for Babies - Prenatal Classes (MLHU)	Pregnant Mothers	N/A	Registration required
	Infant Hearing Program - (MLHU)	Infants	N/A	Registration required
	tykeTALK - Thames Valley Speech and Language	0 - 5	N/A	Registration required
	Parent and Infant Relationship Clinic (P.A.I.R.) -Vanier Children's Services	0 - 3	N/A	Registration required

Westminster (7.25)

Family Centre Westminster

The Westminster Family Centre is located beside St. Francis Catholic Elementary School. Lord Nelson Public School. This Centre has numerous resources available for children between 0 to 6 years of age, many of them being drop-in programs which do not require registration. The Infant Playgroup, which focuses on children from 0 to 12 months occurs two Thursdays a month. This centre also has EarlyOn Playroom hours available Monday and Friday from 9 -12 and Tuesday through Thursday from 9 - 4:30. Middlesex London Health Unit (MLHU) Healthy Start Infant drop-in occurs four times a month for infants from 0 to 6 months old. The MLHU also has prenatal classes called Smart Start for Babies and an Infant Hearing Screening Program, but both of these programs require registration. The Thames Valley Preschool Speech and Language Program offers tykeTALK which is available by appointment only. Vanier Children's Services offers a group called Parent and Infant Relationship Clinic (P.A.I.R) which is offered twice a month, and a parent who is interested must inquire to the Community Connector for more information.

Location	Program	Age (year)	Weekly Availability	Registration
Westminster Family Centre	EarlyON Playgroup	0 - 6	5	N/A
	Infant Drop-in Playgroup	0 – 12 months	1	N/A

	La Ribambelle EarlyON Drop in French Playgroup	0 - 6	1	N/A
	La Ribambelle EarlyON Infant Drop-in	0 – 12 months	0.25	N/A
	Storytime!	1+	0.5	N/A
	Circle of Security – Vanier Children's Services	0 – 18 months	N/A	Registration required
	Stir It Up in the Kitchen – Merrymount and Families First	3 - 6	N/A	Registration required
	School is Cool – Families First	Children starting Kindergarten in September 2020	N/A	Registration required with cost
	P.A.I.R - Vanier Children's Services	0-3	N/A	Registration required

Hamilton Road (8)

Crouch Library offers two literacy programs, Books for Babies and Storytime!
Books for Babies is a 30-minute reading group for babies starting from 0. This program is offered once a week. Storytime! is a program that includes learning stories, songs, rhymes and more to promote literacy. A play time to meet other families and children is available afterward. This is for babies and children age 1 plus and is offered once a week.

Crouch Neighbourhood Resource Center runs the Early Years Program which runs three times a week from September to June. It is a drop-in program and no prior registration is needed.

Location	Program name	Age	Weekly availability	Registration
Central London Library	Books for Babies	0+	1	N/A
	Storytime!	1+	3	N/A
	Curious connections	0 – 6	1	N/A
Crouch Neighbourhood Resource Centre	Early-on Playgroup	0 – 6	3	N/A

White Oaks (7.25)

Jalna Library offers Storytime! a program that includes learning stories, songs, rhymes and more to promote literacy. A play time to meet other families and children is available afterward. This is for babies and children age 1 and above with an accompanying caregiver. Runs once a week.

Family Centre White Oaks

The White Oaks Family Centre is located at White Oaks Elementary School. There are numerous resources that are available at this centre for children 0 to 6 years of age. EarlyON Drop-in Playgroups are offered four times a week and one Bilingual Playgroup is offered once a week. Vanier Children's Services offers a group called Parent and Infant Relationship Clinic (P.A.I.R) and a parent who is interested must inquire to the Community Connector for more information. There is an Infant Playgroup that is offered once a week for ages 0 to 12 months old. The MLHU offers a free drop-in program called Healthy Start Infant Drop-in which happens once a month at the South London Neighbourhood Resource Centre and is run by a Public Health Nurse.

Location	Program	Age (year)	Weekly Availability	Registration
Jalna Library	Storytime!	1+	1	N/A
White Oaks Family Centre	EarlyON Drop-in Playgroup	0 - 6	4	N/A
	Playgroup La Ribambelle	0 - 6	1	N/A
	Healthy Start Infant Drop-in	0 – 6 months	.25	N/A
	Infant Playgroup	0 – 12 months	1	N/A
	P.A.I.R - Vanier Children's Services	0-3	N/A	Registration required

Fanshawe (7.25)

Family Centre Fanshawe

The Fanshawe Family Centre is located at Cedar Hollow Public School. This Centre has numerous resources available for children between 0 to 6 years of age, many of them being drop-in programs which do not require registration. EarlyON Playgroups for children 0 to 6 years of age are available four times a week. La Ribambelle offers an EarlyON Playgroup once a week for children ages 0 to 6 years of age. LUSO offers the Shared Beginnings Playgroup for ages 0 to 6 year of age once a week. The London Public Library offers Storytime! once a month for children ages 0 to 6 years. Vanier Children's Services offers a group called Parent and Infant Relationship Clinic (P.A.I.R) which is offered twice a month, and a parent who is interested must inquire to the Community Connector for more information. London Children's Connection (LCC) offers three programs. Infant Playgroup for children from age 0 to 12 months. The LCC also offers two programs that require registration, Just Beginnings. The First Six Months for children from 0 to 6 months old. This program is for first time mothers and runs over a span of

four weeks. The second program is Choosing Quality Care which has no specific age range but does say that babies are welcome and is offered once a month.

Location	Program	Age (year)	Weekly Availability	Registration
Fanshawe Family Centre	EarlyON Playgroups	0 - 6	4	N/A
	La Ribambelle EarlyON Playgroup French and English	0 - 6	1	N/A
	Shared Beginnings (LUSO)	0 – 6	1	N/A
	Infant Playgroup-London Children's Connection (LCC)	0 – 12 months	1	N/A
	P.A.I.R. -Vanier Children's Services	0 - 3	N/A	Registration required
	Storytime!	0-6	0.25	N/A
	Just Beginnings – The First Few Months - LCC	0-6 months	N/A	Registration required
	Choosing Quality Care - LCC	No specific age ranges	N/A	Registration required

Westmount (7)

Family Centre Westmount

The Westmount Family Centre is located in Jean Vanier Catholic Elementary School. This Centre has numerous resources available for children between the ages of 0 to 6 years of age, many of them being drop-in programs which do not require registration. There are two EarlyON Drop in Playgroups that are offered here, the EarlyON Playgroup for children 0 to 6 years of age. This group is offered four days a week. The Infant Playgroup for children ages 0 to 12 months is offered once a week. There is also a playgroup called Men Can Play too, for children 0 to 3 years old and their Dad's. This program runs every Saturday for one month. It is not clear if there is registration for this program. La Ribambelle offers a French Playgroup once a week for children 0 to 6 years of age.

Location	Program name	Ages (years)	Weekly availability	Registration
Family Centre Westmount	EarlyON Playgroup	0 - 6	4	N/A
	Infant Playgroup	0 – 12 months	1	N/A

	Playgroup – Men can play, too (for Dad's)	0 - 3	1	Inquire for more details
	La Ribambelle (French playgroup offered to everyone)	0 - 6	1	N/A

Fox Hollow (8)

Family Centre Fox Hollow

The Fox Hollow Family Centre is located at Sir. Arthur Currie Public School. This Centre has numerous resources available for children between the ages of 0 to 6 years of age, many of them being drop-in programs which do not require registration. Childreach offers two free drop-in programs, the Childreach Playgroup which is for children aged 0 to 6 and happens twice a week. They also offer the Childreach Infant Playgroup for children ages 0 to 12 months which takes place four times a month. Whitehills Playgroup is offered many times per month, and twice on certain days. La Ribambelle offers ABC en Francais Playgroup for children ages 0 to 6 years of age and is a free drop-in program. Vanier Children's Services offers a group called Parent and Infant Relationship Clinic (P.A.I.R) which is offered twice a month, and a parent who is interested must inquire to the Community Connector for more information. The MLHU offers Infant Hearing Program and is available by appointment only. The More Than Words program is offered through tykeTALK and in a unique program to this Centre. Parents must register for this program, and no specific age is given.

Location	Program name	Age (years)	Weekly availability	Registration
Family Centre Fox Hollow	Childreach Playgroup	0 – 6	2	N/A
	Childreach Infant Playgroup	0 – 1	1	N/A
	Whitehills Playgroup	0 – 6	4	N/A
	Tyke talk	0 -5	N/A	Registration required
	P.A.I.R.-Vanier Children's Services	0 - 3	N/A	Registration required
	Infant Hearing Program - (MLHU)	Infant	N/A	Registration required
	ABC en Francais Playgroup – La Ribambelle	0-6	1	N/A

Carling (5.25)

Family Centre Carling-Thames

The Family Centre Carling-Thames is located at Northbrae Public School. This centre has numerous resources available for children between 0 to 6 years of age, many of them being drop-in programs which do not require registration. Childreach offers two drop-programs, Curious Connections for children aged 0 to 6 years of age which is offered four times a month. They also offer EarlyOn Playgroups also for children from 0 to 6 years of age and are offered four times a month. La Ribambelle offers an EarlyON en Francais playgroup for children from 0 to 6 years of age which is offered four times a month. LUSO Community Services has a free drop-in program called Shared Beginnings which focuses on children ages 0 to 6 years of age. Merrymount offers a program called Stir It Up with Literature which is for children 3 - 6 years of age. It is a first come first serve drop-in program that is free and is offered four times a month. The Thames Valley Preschool Speech and Language Program offers tykeTALK which is available by appointment only. Vanier Children's Services offers a group called Parent and Infant Relationship Clinic (P.A.I.R) which is offered twice a month, and a parent who is interested must inquire to the Community Connector for more information. Storytime! at the library is in collaboration with the London Public Library and is offered once a month. The MLHU offers prenatal classes called Smart Start for Babies. This program requires registration but has no cost and is offered four times a month.

Location	Program name	Age (years)	Weekly availability	Registration
Family Centre Carling Thames	Curious Connections	0 – 6	1	N/A
	Shared Beginnings	0 – 6	1	N/A
	EarlyON Playgroup	0 – 6	1	N/A
	La Ribambelle Play group en Francis (Available to anyone)	0 – 6	1	N/A
	Stir it up with Literature	3 - 6	1	N/A
	Parent and Infant Relationship Clinic (P.A.I.R.) - Vanier Children's Services	0 - 3	N/A	Registration required
	Smart Start for babies- prenatal classes	Parents	N/A	Registration required

	Storytime!	1+	0.25	N/A
	TykeTALK	0-3	N/A	Registration required

Huron Heights (5)

Beacock Library offers three literacy programs, Books for Babies, Storytime! and a Child and Family Playgroup. Books for Babies is a 30-minute reading group for babies starting from 0. This program is offered once a week. Storytime! is a program that includes learning stories, songs, rhymes and more to promote literacy. A play time to meet other families and children is available afterward. This is for babies and children age 1 plus and is offered once a week. The Child and Family Playgroup is a program providing interactive early learning activities. It is in partnership with EarlyON Child & Family Centres, Childreach or LUSO and is offered three times a week.

Location	Program name	Age	Weekly availability	Registration
Beacock Library	Books for Babies	0+	1	N/A
	Storytime!	1+	1	N/A
	Child and Family Playgroup	0 – 6	3	N/A

Central London (5)

Central London is the home of London Children's Library and offers three literacy rich programs; Books for Babies, Storytime! and Curious Connections. Books for Babies is a 30-minute reading group for babies starting from 0. This program is offered once a week. Storytime! is a program that includes learning stories, songs, rhymes and more to promote literacy. A play time to meet other families and children is available afterward. This is for babies and children age 1 plus and is offered three times a week. Curious Connections is a program that encourages mindful play, exploration and curiosity using loose parts, it runs in partnership with Childreach, is available to children 0 to 6, and is offered once a week.

Location	Program name	Age	Weekly availability	Registration
Central London Library	Books for Babies	0+	1	N/A
	Storytime!	1+	3	N/A
	Curious connections	0 – 6	1	N/A

Bostwick (4)

Bostwick library offers two drop in programs, Books for Babies and Storytime! and two free programs that require registration, grandparent and tot story and swim and water babies story and song. Books for Babies is a 30-minute reading group for babies starting from 0.

This program is offered twice a week. Storytime! is a program that includes learning stories, songs, rhymes and more to promote literacy. A play time to meet other families and children is available afterward. This is for babies and children age 1 plus and is offered twice a week. Grandparent and Tot Story and Swim is a story time program in the YMCA pool attached to the library. Participants also receive a bath book to take home. In partnership with Age Friendly London, Family Centre Westmount and YMCA. This program requires registration and runs once a month. Water Babies Story and Swim has stories, songs and rhymes in the pool! It is for babies 3 months to 12 months, offered once a week with registration required.

Location	Program name	Age	Weekly Availability	Registration
Bostwick Library	Books for Babies	0+	2	N/A
	Storytime!	1+	2	N/A
	Grandparent and Tot Story and Swim	N/A	N/A	Registration required
	Water Babies Story and Swim	3 months to 12 months	N/A	Registration required

Medway (4)

Sherwood Library offers two literacy rich programs, Books for Babies and Storytime! Books for Babies is a 30-minute reading group for babies starting from 0. This program is offered twice a week. Storytime! is a program that includes learning stories, songs, rhymes and more to promote literacy. A play time to meet other families and children is available afterward. This is for babies and children age 1 plus and is offered twice a week.

Location	Program name	Age	Weekly availability	Registration
Sherwood Library	Books for Babies	0+	2	N/A
	Storytime!	1+	2	N/A

Masonville (4)

Books for Babies is a 30-minute reading group for babies starting from 0. This program is offered twice a week. Storytime! Is a program that includes learning stories, songs, rhymes and more to promote literacy. A play time to meet other families and children is available afterward. This is for babies and children age 1 plus and is offered twice a week.

Location	Program name	Age	Weekly availability	Registration
Masonville Library	Books for Babies	0+	2	N/A
	Storytime!	1+	2	N/A

Byron (3)

Byron Library offers three literacy programs, Books for Babies, Storytime! and a Child and Family Playgroup. Books for Babies is a 30-minute reading group for babies starting from 0. This program is offered once a week. Storytime! is a program that includes learning stories,

songs, rhymes and more to promote literacy. A play time to meet other families and children is available afterward. This is for babies and children age 1 plus and is offered once a week. The Child and Family Playgroup is a program providing interactive early learning activities. It is in partnership with EarlyON Child & Family Centres, Childreach or LUSO and is offered once a week.

Location	Program name	Age	Weekly availability	Registration
Byron Library	Storytime!	1+	1	N/A
	Curious Connections	0+	1	N/A
	Child and Family Playgroup, in partnership with Childreach or LUSO	0+	1	N/A

South London (3)

Landon Library offers three literacy programs, Books for Babies, Storytime! and Discovery Mornings in the Studio. Books for Babies is a 30-minute reading group for babies starting from 0. This program is offered once a week. Storytime! is a program that includes learning stories, songs, rhymes and more to promote literacy. A play time to meet other families and children is available afterward. This is for babies and children age 1 plus and is offered once a week. Discovery Mornings in the Studio is an open studio space for hands-on, self-directed discovery, sensory and fun. It is for children 1 to 6 and is offered once a week.

Location	Program name	Age	Weekly availability	Registration
Landon Library	Books for Babies	0+	1	N/A
	Storytime!	1+	1	N/A
	Discovery Mornings in the Studio		1	N/A

Stoney Creek (3)

Stoney Creek Library offers three literacy programs, Books for Babies, Storytime! and Story and Gym. Books for Babies is a 30-minute reading group for babies starting from 0. This program is offered once a week. Storytime! is a program that includes learning stories, songs, rhymes and more to promote literacy. A play time to meet other families and children is available afterward. This is for babies and children age 1 plus and is offered once a week. The Story and Gym program is for children 1+ and is focused on sharing stories, songs, rhymes in the library and then experiencing active play in the YMCA gym beside the library. This program is offered once a week.

Location	Program name	Age	Weekly availability	Registration

Stoney Creek Library	Books for Babies	0+	1	N/A
	Storytime!	1+	1	N/A
Stoney Creek Library and attached YMCA	Story and Gym	1+	1	N/A

Glen Carlin (3)

The Pond Mills Library offers three literacy programs, books for babies, Storytime! and Curious Connections. Books for babies is a 30-minute reading group for babies starting from 0. This program is offered once a week. Storytime! Is a program that includes learning stories, songs, rhymes and more to promote literacy. A play time to meet other families and children is available afterward. This is for babies and children age 1 plus and is offered once a week. Curious Connections is a program that encourages mindful play, exploration and curiosity using loose parts it runs in partnership with Childreach and is offered once a week.

Location	Program name	Age	Weekly availability	Registration
Pond Mills Library	Books for Babies	0+	1	N/A
	Storytime!	1+	1	N/A
	Curious Connections	0+	1	N/A

West London (2.5)

The Cherry-Hill Library offers three literacy programs, Books for Babies, Storytime! and Sensory Storytime. Books for Babies is a 30-minute reading group for babies starting from 0. This program is offered once a week. Storytime! is a program that includes learning stories, songs, rhymes and more to promote literacy. A play time to meet other families and children is available afterward. This is for babies and children age 1 plus and is offered once a week. Sensory Storytime is an adaptive story time ideal for children with sensory processing sensitivity or on the autism spectrum. It is intended for children 2+ years with a caregiver. It is offered once every 2 weeks.

Location	Program name	Age	Weekly availability	Registration
Cherry-Hill Library	Books for Babies	0+	1	N/A
	Storytime!	1+	1	N/A
	Sensory Storytime	2+	0.5	N/A

East London (2)

Carson Library offers two literacy rich programs, Storytime! and Curious Connections. Storytime! is a program that includes learning stories, songs, rhymes and more to promote literacy. A play time to meet other families and children is available afterward. This is for babies

and children age 1 plus and is offered once a week. Curious Connections is a program that encourages mindful play, exploration and curiosity using loose parts it runs in partnership with Childreach and is offered once a week.

Location	Program name	Age	Weekly availability	Registration
Carson Library	Storytime!	1+	1	N/A
	Curious Connections	0+	1	N/A

Lambeth (1)

Lambeth Library offers Storytime! a program that includes learning stories, songs, rhymes and more to promote literacy. A play time to meet other families and children is available afterward. This is for babies and children age 1 and above with an accompanying caregiver. Runs once a week.

Location	Program name	Age	Weekly availability	Registration
Lambeth Library	Storytime!	1+	1	N/A

Appendix C - Quantitative Analysis

Table 1 Linear Regression of Socio-economic status and child's gender along with their interaction on PPVT-R score Table 1 Linear Regression of Socio-economic status and child's gender along with their interaction on PPVT-R score

	Model 1		Model 2		Model 3	
	B	S.E	B	S.E	B	S.E
Socio-economic status	5.444*	.337	5.424*	.337	4.814*	.480
Gender of Child			.774	.513	.842	.514
ChildGender_SES					1.204	.674
Constant	99.720*	.257	99.334*	.363	99.281*	.364

Notes: 1) *p < 0.05.

Table 2 Linear Regression of single parent status and child's gender along with their interaction on PPVT-R score

	Model 1		Model 2		Model 3	
	B	S.E	B	S.E	B	S.E
Single- Parent status	4.351*	.735	4.361*	.734	3.988*	1.043
Gender of Child			1.094*	.528	.466	1.352
ChildGender_Single parent					.741	1.469
Constant	95.743*	.676	95.191*	.727	95.508*	.961

Notes: 1) *p < 0.05.

Table 3 Linear Regression of PMK's highest level of education and child's gender along with their interaction on PPVT-R score

	Model 1		Model 2		Model 3	
	B	S.E	B	S.E	B	S.E
PMKs Highest Level of Education	6.100*	.557	6.061*	.557	4.430*	.774
Gender of Child			.987	.525	-1.271	.910
ChildGender_PMKEducation					3.377*	1.113
Constant	95.395*	.455	94.931*	.517	95.993*	.600

Notes: 1) *p < 0.05.

Table 4 Linear Regression of child's immigration status and child's gender along with their interaction on PPVT-R score

	Model 1		Model 2		Model 3	
	B	S.E	B	S.E	B	S.E
Childs Immigration Status	-18.286	5.241	-18.058*	5.241	-15.004*	6.167
Gender of Child			1.033	.530	1.056*	.531
ChildGender_ChildImmig					-10.994	11.701
Constant	99.468*	.265	98.954*	.374	98.942*	.375

Notes: 1) *$p < 0.05$.

Table 5 Linear Regression PPVT-R scores, child's gender along with their interaction, socio-economic status, single parent status, person most known (PMK) highest level of education, and child's immigration status on hyperactivity (4-11-year-old's)

	Model 1		Model 2		Model 3		Model 4		Model 5		Model 6		Model 7	
	B	S.E	B	S.E	B	S.E.	B	S.E	B	S.E	B	S.E	B	S.E
PPVT-R	-.019*	.004	-.018*	.004	-.019*	.005	-.011*	.005	-.011*	.005	-.011*	.005	-.012*	.005
Gender of Child			-.917*	.116	-1.036	.752	-1.265	.745	-1.249	.744	-1.241	.751	-1.290	.750
PPVT_ChildsGender					.001	.007	.004	.007	.004	.007	.004	.007	.004	.007
Socio-economic status							-.698*	.078	-.596*	.084	-.646*	.094	-.648*	.094
Single parent status									-.576*	.173	-.583*	.181	-.571*	.181
PMK'S highest level of education											.241	.138	.255	.138
Child's immigration status													-3.402*	1.131
Constant	6.801*	.379	7.169*	.378	7.228*	.527	6.416*	.561	6.901*	.548	6.792*	.560	6.870*	.560

Notes: 1) *p < 0.05.

Table 6 Linear Regression PPVT-R scores, child's gender along with their interaction, socio-economic status, single parent status, person most known (PMK) highest level of education, and child's immigration status on aggression (4-11-year-old's)

	Model 1		Model 2		Model 3		Model 4		Model 5		Model 6		Model 7	
	B	S.E	B	S.E	B	S.E.	B	S.E	B	S.E	B	S.E	B	S.E
PPVT-R	-.003	.002	-.003	.002	-.001	.003	.001	.003	.001	.003	.001	.003	.000	.003
Gender of Child			-.418*	.066	-1.196*	.430	-1.245*	.431	-1.250*	.431	-1.215*	.435	-1.237*	.435
PPVT_ChildsGender					-.008	.004	.008	.004	.008	.004	.008	.004	.008	.004
Socio-economic status							-.161*	.045	-.114*	.049	-.159*	.055	-.160*	.054
Single parent status									-.258*	.100	-.237*	.105	-.233*	.105

PMK'S highest level of education											.197*	.080	.201*	.080
Child's immigration status													-1.320*	.656
Constant	1.378*	.216	1.541*	.217	1.920*	.299	1.726*	.304	1.948*	.316	1.826*	.323	1.856*	.323

Notes: 1) *p < 0.05.

Table 7 Linear Regression PPVT-R scores, child's gender along with their interaction, socio-economic status, single parent status, person most known (PMK) highest level of education, and child's immigration status on anxiety (4-11-year-old's)

	Model 1		Model 2		Model 3		Model 4		Model 5		Model 6		Model 7	
	B	S.E	B	S.E	B	S.E.	B	S.E	B	S.E	B	S.E	B	S.E
PPVT-R	-.002	.002	-.002	.002	-.006	.003	-.002	.003	-.002	.003	-.002	.003	-.003	.003
Gender of Child			.066	.075	-.621	.482	-.747	.479	-.736	.478	-.687	.482	-.718	.481
PPVT_ChildsGender					.007	.005	.008	.005	.008	.005	.008	.005	.008	.005
Socio-economic status							-.385*	.051	-.306*	.054	-.403*	.061	-.404*	.060
Single parent status									-.441*	.111	.342*	.116	-.337*	.116
PMK'S highest level of education											.323*	.089	.329*	.089
Child's immigration status													-1.692*	.728
Constant	2.333*	.241	2.307*	.255	2.643*	.337	2.192*	.340	2.568*	.352	2.317*	.359	2.356*	.359

Notes: 1) *p < 0.05.

Table 8 Linear Regression PPVT-R scores, child's gender along with their interaction, socio-economic status, single parent status, person most known (PMK) highest level of education, and child's immigration status on prosocial behaviour (4-11-year-old's)

	Model 1		Model 2		Model 3		Model 4		Model 5		Model 6		Model 7	
	B	S.E	B	S.E	B	S.E.	B	S.E	B	S.E	B	S.E	B	S.E
PPVT-R	.015*	.005	.014*	.004	-.001	.006	-.001	.006	-.001	.006	-.002	.006	-.002	.006

Gender of Child			1.306*	.139	-1.714	.895	-1.756	.898	-1.753	.898	-1.569	.908	-1.578	.908
PPVT_ChildsGender					.030*	.009	.031*	.009	.031*	.009	.029*	.009	.029*	.009
Socio-economic status							-.035	.095	-.078	.102	-.236*	.114	-.236*	.114
Single parent status									.244	.209	.300	.220	.301	.220
PMK'S highest level of education											.569	.167	.571*	.168
Child's immigration status													-.533	1.354
Constant	9.830*	.454	9.333*	.451	10.803*	.623	10.813*	.633	10.598*	.660	10.219*	.677	10.231*	.678

Notes: 1) *$p < 0.05$.

Appendix D – Interview Questions for Health Care Providers

1. What is your knowledge about literacy rates in the City of London?
2. What is your knowledge about the association between literacy and health outcomes?
3. Do you currently do anything to encourage literacy in your practice?
4. What demographic of families do you serve?
5. Have you heard of "baby's book bag" or the "2000 words campaign"? What are your thoughts on it?
6. Would you be willing to be involved in programs to encourage literacy if you are not already? If so, what would be easiest in your perspective?
7. Do patients typically ask you where they can find or access certain resources? If so, is it typically easy to recommend resources or is there a lack or accessible resources for patients in general?
8. How important is literacy to you on a scale of 1-10 (10 being the highest)?
9. What impacts does literacy have on the daily lives of individuals, children especially?
10. Would you consider literacy to be one of the most influential elements in a child's growth and development?
11. How would you promote literacy to parents and young children?
12. 1 in 4 students don't graduate high school in Canada. What is your knowledge of the issues associated with this statistic? Do you believe early literacy is a contributing factor to this problem?

Appendix E – Community Leaders at the Child and Youth Network and City of London Family Centres

1. You have been involved in various literacy initiatives in the City of London. We were wondering if you could provide more information about how they were developed and carried out? (probes below can be applied to any community member working with social programming)
    a. Were particular groups of people consulted?
    b. Were there challenges that you experienced that we should know about?
    c. What are the parts of the programs/campaigns that you feel worked well? Did not work? Is there specific evidence or feedback that would support that?
    d. How do you see the issue of literacy rates intersecting with poverty? Have any of your programs worked to integrate initiatives targeting both?
    e. If these questions have sparked any ideas of things we should know about current literacy projects/campaigns please also let us know.
2. We know there are a large number of groups and organizations that are connected to the City of London's literacy initiatives. Could you tell us more about the roles they play and how they can be related to our project?

Appendix F – Focus Group Questions for Parents

1. What does literacy mean to you?
2. What resources do you need to better support literacy in your children?

Appendix G – Related Initiatives

Below is a list of related initiatives that the CYN is already conducting and may be useful to connect with for support.

i. Build literacy-rich environment and integrate literacy into community spaces across the city
ii. Public Awareness of Family Centres
iii. Participation and alignment with existing networks and partnerships in London to increase collective effectiveness.
iv. CYN Youth Project Design (YPD)

Appendix H - Key Roles

High school Co-op Students will:

i. Sign up for a co-op through their respective high school and choose the Family Centre as their placement
ii. Attend a day of training which will include learning about what the Family Centres do, how they can help at the family centres and also in the community, how to work with children, and why literacy rates in London are so low.
iii. Complete weekly logs of their experiences at their co-op
iv. Assist Family Centres in regular programming with children, this will improve skills that can be used in outreach activities.
v. Organize and update a social media account that attracts attention to the literacy movement.
vi. Give out cards and brochures to families during outreach (ex. At hospitals, food banks, bus stops, events)
vii. Develop, organize, and attend blitz and out-reach campaigns
viii. Example of a week: spend two days in the centre working on future outreach plans and/or developing blitz campaigns, spend 1-2 days assisting in family centres, 1 – 2 days doing outreach activities.

Fanshawe College Placement Students will:

i. Sign up for placement through Fanshawe and choose the Family Centre as their placement
ii. Attend a day of training which will include learning what the Family Centres do, how they can help at the Family Centres and also in the community, how to work with children (unless their program has already done so), why literacy rates in London are so low, and how they will be partnered with a high school student
iii. Assist Family Centres in regular programming with children, this will improve skills that can be used in outreach activities.
iv. Oversee the social media account that high school students will be operating
v. Develop, organize, and attend outreach days and blitz campaigns
vi. Example of a week: spend two days in the Centre working on future outreach plans and/or developing blitz campaigns, spend 1-2 days assisting in family centre, 1-2 days doing outreach activities.

Alternative Field Experience Students from the Teachers College will:

i. Take on a specialized role that the Child and Youth Network sees important and essential
ii. Organize blitz campaigns and contact all people necessary for the success of the event
iii. Important to note that since they are only available for 3 weeks, two times a year they will not be suitable supervisors for other students.

Family Centre Staff or Assigned Lead will:

i. Run the day of training that both college and high school students will attend- address what the Family Centres do and what it's like working with kids and vulnerable populations
ii. Oversee the students when they are working in the Family Centres
iii. Give space for students to work on development of outreach and Blitz programming within the Family Centre
iv. Report to high school co-op teacher or college placement coordinator if any issues arise with student

Appendix I – Contact Information of High Schools in the Carling Neighbourhood

i. Conseil Scolaire Providence (French Board)
    1. Monseigneur-Bruyere Ecole Secondaire Catholique
        - less than 1km away from Carling Thames Family Centre
        - (519) 673-4223

ii. London District Catholic School Board
    1. John Paul II Catholic Secondary School
        - 4.6km away from Carling Thames Family Centre
        - (519) 675-4432

iii. Thames Valley District School Board
    1. London Central Secondary School
        - 4.1km away from Carling Thames Family Centre
        - (519) 452-2620

    2. H.B. Beal Secondary School
        - 3.8km away from Carling Thames Family Centre
        - (519) 452-2700

Appendix J – Relevant Fanshawe Placements

- Child and Youth Care:
  - https://www.fanshawec.ca/programs-and-courses/academic-schools/human-services/field-placements-overview/child-youth-care

- Early Childhood Education:
  - https://www.fanshawec.ca/programs-and-courses/academic-schools/human-services/field-placements-overview/early-childhood

- Human Services Foundation:
  - https://www.fanshawec.ca/programs-and-courses/academic-schools/human-services/field-placements-overview/human-services

- Recreation and Leisure Services:
  - https://www.fanshawec.ca/programs-and-courses/academic-schools/human-services/field-placements-overview/recreation-leisure

- School of Community Studies field placement - general inquiries:
  - Tamra Wyatt
    Field/Clinical Placement Liaison
    twyatt@fanshawec.ca
    (519) 452-4430 x396

Appendix K - Training Material Guidelines

The following bullet points include information that can be used for training both the high school and college students. Information that is already found in the agenda can be used for training as well because the pre-existing resources are beneficial to this project. There is also a training program run by Childreach. This is a half-day session that trains early childhood educators in community resources, similar to the training that community connectors receive. This is another option for potential training. A past event of one of these training session can be found here:

- https://www.universe.com/events/community-connector-training-family-centre-westminster-tickets-london-TK4Y39

Key points we believe the student should acquire in their training are:

- What the family centres do for the community.
  - London's Family Centres are designed to make life easier for all families by offering a single door to the many opportunities in your neighbourhood and city.
  - The role of the Community Connector
    - act as the first point of contact when a person or family comes into the centres seeking assistance
    - families are greeted by a knowledgeable, friendly Community Connector who helps them connect seamlessly to more opportunities that help them to be successful in all aspects of their lives
    - plays an important role for services which require registration such as programs that are offered through the London Middlesex Health Unit (LMHU) and Vanier (this had to be moved up as it goes together)
    - that are offered through the London Middlesex Health Unit (LMHU) and Vanier
    - they can also assist with further outreach to community partners to access assistance when more in-depth help is required
  - A more extensive review of what the family centres do can be found in the "Environmental Scan" document
- Issues with Literacy in London
  - In 2007: 1 in 5 children born were living in poverty, more than 1 in 4 were not ready to learn in grade 1, and more than 1 in 5 did not graduate from high school
  - School readiness is an issue that the Child and Youth Network has tried to address previously with Baby's Book Bag and 2000 Words Campaign however the statistics did not get much better after those initiatives
  - Students can further research the literacy issues in London and what the family centres do by accessing:
    - https://www.londoncyn.ca/
    - https://www.london.ca/residents/children-youth/family-centres/Pages/About-Family-Centres.aspx
- Why they are important
  - The Family Centres are extremely important because they offer an abundance of resources to help children and families in a variety of areas.

- ➢ The goals of the Family Centres: make literacy a way of life, end poverty, create a family centred service system, and promote healthy eating and physical activity
- ➢ The family centres are a great place to go to because Community Connectors will connect you to any services your family needs

❖ How can the students help?

- ➢ **High School Co-Op Student**- as a co-op student you will be able to directly impact children's lives by reading to them, playing with them, and providing information on resources in the community to the family. At blitz-campaigns you will be able to connect with families and advocate the importance of early literacy and school readiness.
- ➢ **College Placement Student-** as a college placement student you will be able to take on a leadership role that will directly impact the success of the literacy strategy.
- ➢ Have students think about how family centres could have improved their lives or friends of theirs.

Appendix L – Community Centres in Surrounding Neighbourhoods for Potential Outreach and Blitz Days

Neighbourhood	Community/resource Centres	Contact Information
East London	Boyle Memorial Community Centre	(519) 661-CITY (2489) ext. 4427
	Cross Cultural Learning Centre	(519) 432-1133
Carling	Carling Heights Optimist Community Centre	(519) 661-2523
	Centre Communautare Regional de London	(519) 673-1977
Hamilton Road	Crouch neighbourhood Resource Centre	(519) 642-7630

List of foodbanks for potential outreach

Food Banks in East/Northeast London	Contact Information
Crouch Neighbourhood Resource Centre - Community Support and Basic Needs Services	(519) 642-7630 Fax: (519) 642-7026
East London United Church Outreach (ELUCO)	(519) 451-3709
London and Area Food Bank - Argyle Food Depot	(519) 659-4045 Fax: (519) 680-1627
London and Area Food Bank - Impact Church Food Bank	(519) 659-4045 Fax: (519) 680-1627
London and Area Food Bank - Northeast Food Bank Depot	(519) 659-4045 Fax: (519) 680-1627
LUSO Community Services - Basic Needs and Community Support Program	(519) 452-1466 Fax: (519) 452-1673

List of walk-in clinics around area

Walk-In Clinics in East/Northeast London	**Contact Information**
Alevia-Med Walk in Clinic	(519) 453-7117 Fax: (519) 453-6540
Clarke Road Medical Centre	(519) 455-1100 Fax: (519) 455-7400
Highbury Medical Clinic	(519) 659-2331 Fax: (519) 659-4617
Huron Medical Centre	(519) 601-6640 or (226) 984-8766 Fax: (519) 601-6642
MyDoctor Now Telehealth Clinic - London - Dundas St E	Toll-Free:1-888-418-4330 Fax: (226) 213-5559
Oxbury Medical Clinic	(519) 204-6204 Fax: (226) 270-0200

Appendix M – Outcomes within the CYN Framework

The CYN has a list of existing outcomes for each strategy in their agenda. The outcomes from the "making literacy a way of life" and "creating a family-centred service model" that could be applied to the *Grassroots Literacy Strategy*

1. More children enter the school system with a strong foundation for success.
2. More community members engage in activities which improve all forms of literacy
3. Secondary school Graduation Rates
4. Families are connected and engaged in their neighbourhood
5. Families have better and more consistent experience when accessing services

Appendix N – Existing Evaluation Indicators – From Provisional Shared Measurement Framework Table

Outcome	**Primary priority connection(s)**	**Existing Contributing indicators**
School preparedness	Literacy	EDI scores
Educational Success	Literacy Ending poverty	EQAO scores Graduation rates
Availability of all resources in neighbourhoods	Family-Centred service system Ending poverty	Family centre usage statistics
System Change	Family-Centred service system Ending poverty	Level of partner integration

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