

Flushing Inequality:

An Assessment of Availability, Accessibility and Quality of Public Toilets in the City of Ottawa

Victoria Roberts, BSW

Isabeau Welter, BSW

Fireda Ahmed, BSW

Anonymous Researcher 1

Anonymous Researcher 2

Master of Social Work

School of Social Work

Carleton University

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### **Abstract**

This report presents the findings of a quantitative study conducted to assess the availability, quality and accessibility of public toilets owned, operated and maintained by the City of Ottawa. The research was commissioned by the GottaGo! Campaign, a committee of active citizens advocating for a network of safe, accessible, free and clean public toilets in parks, major transit stops and key public places in Ottawa. Using an anti-oppressive theoretical framework, the research team of graduate social work students engaged in participatory action research to create a visual assessment tool of availability, accessibility and quality criteria against which a sample of 92 public toilets were assessed. The findings of the research report reveal that, although there are a wealth of public toilet facilities in the City of Ottawa that meet quality criteria, accessibility and availability of public toilets varies. These research findings expand upon existing literature by exploring how public toilet provision in the City of Ottawa serves to reinforce oppressions that individuals face, further marginalizing populations such as the elderly, people with disabilities, people with chronic health conditions, women, transgender people, people who are experiencing homelessness. This research reinforces the need for social workers to recognize the implications that limited access to public toilets has on clients, and how these patterns of oppression impact marginalized populations. Increased awareness of the issue of public toilet accessibility and availability can be used to mobilize community members to become involved in coalitions like the GottaGo! Campaign that are seeking to make public spaces more accessible and inclusive to the needs of all service users.

*Keywords:* public toilet provision, social inclusion, accessibility, social justice, Ottawa

## **Introduction**

The need to eliminate one's bodily waste is a universal function that transcends race, religion, class, gender and ability. Although each individual performs the act differently based on biological composition, ability, cultural or environmental context, the need transcends all identities. As such, the provision of public toilet infrastructure is a key indicator of the wellbeing of a city, and a prerequisite for the full participation of all individuals in community life.

## **Research Partnership and Research Question**

The *Flushing Inequality* research project was established in partnership with the GottaGo! Campaign to survey the current state of public toilets in the City of Ottawa. The GottaGo! Campaign advocates for a network of safe, accessible, free and clean public toilets in parks, major transit stops and key public places to meet the needs of residents and tourists in Ottawa. The campaign emerged from a Citizen's Academy "Civics Boot Camp" in 2013 where teams of concerned local citizens chose issues facing their community and developed advocacy strategies to address these concerns. The GottaGo! team was mobilized to take their activism beyond the Boot Camp to create a formal, organized campaign to launch on World Toilet Day, November 19, 2013. The current membership for the GottaGo! Campaign consists of representatives from Crohn's and Colitis Canada, parents of young children, seniors, outdoor enthusiasts, university researchers, people of various socioeconomic and religious backgrounds, people with disabilities, and people experiencing chronic illness. The data collected from this research project will be used to inform the advocacy strategy of the GottaGo! Campaign, in order to determine the highlights of existing City of Ottawa public toilet infrastructure and identify areas of public toilet provision and design that need improvement. In partnership with the GottaGo! Campaign and an advisory committee of service users from the community, the *Flushing Inequality* research project consists of a descriptive study to answer the following research question: What is the availability, accessibility and quality of existing public toilets in the City of Ottawa?

## Conceptual Framework

In order to further define the aforementioned research question, the concepts of “public toilet”, “availability”, “accessibility”, and “quality” are further defined. These concepts emerged from the literature as common themes surrounding public toilet design and use. The definitions of these terms were then outlined by the research team in consultation with the advisory committee, so as to draw on criteria outlined in the literature, and consider concerns articulated by service users in the City of Ottawa. For the purposes of this study, the *Flushing Inequality* research project defines a “public toilet” as permanent toilet facilities that are owned, operated and maintained by the City of Ottawa. These may be comfort stations in public parks, or fixed washrooms in museums, community centres, libraries, athletic and recreational facilities, or in City of Ottawa managed facilities or offices (i.e. City Hall). With reference to the public toilet facilities that will be assessed for the purposes of this research, public toilet “availability” is assessed based on the seasons or times of the year that the public toilet is open for access, as well as based on the hours of the day during which it can be accessed for public use. Moreover, an “available” public toilet is one that is well-marked, close to public transit, and located in areas accessible to the public without requiring City of Ottawa permission or assistance to access, such as on locked or gated property. A public toilet that demonstrates “accessibility” is designed and located to ensure safe and equitable access by people of all abilities, genders and classes. An accessible toilet in the City of Ottawa meets the minimum standards outlined in the Ontario Building Code Act, 1992 (Government of Ontario, amended in 2014) to accommodate people with physical disabilities, such as wheelchair users and people with visual impairments; provides gender neutral facilities; and ensures safety through staff monitoring and visibility to surrounding areas. Finally, a “quality” public toilet refers to facilities that are connected to running water, free from potential hazards, clean, well-lit, satisfactorily maintained and supplied, and equipped with diaper change stations in all washrooms, regardless of gender.

## Theoretical Framework

This research is informed by anti-oppressive and structural social work principles. Research that is informed by anti-oppressive principles strives toward challenging oppression and advancing social justice (van de Sande & Schwartz, 2011, p. 6). Our research aims to embody the anti-oppressive and structural approach through the following three measures: challenging oppression and advancing social justice; working in partnership with community members through an advisory committee consisting of service users and affected populations; and identifying potential allies in the change process.

In order to advance social justice and challenge oppressive structures that are embedded in the distribution and design of public toilet facilities, the *Flushing Inequality* research team will work with the GottaGo! Campaign to disseminate the findings of the study using methods that will engage various populations and potential stakeholders. The GottaGo! Campaign has requested that the findings of the study be made available through a summary that is accessible and user-friendly for community members, as well as an executive summary of the findings for City of Ottawa staff, which can be used for advocacy purposes. The GottaGo! Campaign is also exploring the potential for a press release or media advisory to appeal to the broader public in the City of Ottawa.

In accordance with the structural approach, the design of the research instruments and data collection methods has been developed with the support of an advisory committee of concerned and engaged community partners. The establishment of a non-hierarchical relationship between the research team and the advisory committee is integral to participatory action research, which embodies the principles of research from a structural social work framework.

A final tenet of the structural approach to research is the importance of identifying and engaging potential allies in the change process. In cooperation with the GottaGo! Campaign, the research team has attempted to partner with the City of Ottawa in an effort to share the findings of our research project and advance structural change at the municipal level. These efforts yielded a meeting with a

City Councillor who expressed intent to utilize the data from a recent GottaGo! Campaign project conducted by Carleton University student Sarah Good. The maps compiled by Sarah Good are expected to be used to develop an interactive digital application through which public toilet locations will be made available to the public. It was initially anticipated that the availability and accessibility criteria from the *Flushing Inequality* research project would also be used to inform the digital application by providing data concerning accessibility features at public toilet locations (i.e. gender neutral facilities, wheelchair accessible stall). Over the course of the research design, the City of Ottawa deviated from their original offer to support the research process through providing accreditation and access to City of Ottawa public toilets, instead choosing to assemble a team of City of Ottawa staff to internally conduct assessments of accessibility internally, rather than use the information collected and provided by the *Flushing Inequality* research team. As such, the potential for collaboration in the research process with the City of Ottawa was diminished, however the *Flushing Inequality* research team and the GottaGo! Campaign remain committed to the collection of the public toilet data in order to continue advocating at the municipal level for improved, expanded and accessible public toilet facilities in the City of Ottawa.

### **Structural Considerations**

From a structural social work perspective, the role of the social work researcher is to view “social problems as located in social structures” (van de Sande & Schwartz, 2011, p. 5). This research project adopts a structural lens by seeking to understand how a lack of accessible and quality public toilet facilities can reinforce oppressions that individuals face and intersect with various forms of oppression, further marginalizing populations such as the elderly, people with disabilities and chronic health conditions, people who are experiencing homelessness or economic disadvantage, women, transgender people, and people of colour. Judith Plaskow (2008), a feminist theologian, asserts that “the distribution, quality and structure of public toilets are both symbols and concrete representations of a



larger system of social hierarchies” (p. 52). Lack of accessible and quality public toilet facilities within a municipality can present as a barrier to full participation and active citizenship in a community.

Examination of the provision of public toilet facilities that are accessible to all members of a community regardless of age, ability, gender, race and class can provide insight into the patterns of social inclusion and exclusion that are replicated on a national and global level, and how lack of access to these facilities reflects the systemic inequalities that privilege certain bodies over others, based on pervasive structures of racism, classism, ableism, ageism, heterosexism and sexism.

A structural approach to social work research seeks to understand the way in which personal issues are linked to political structures and systems. As American sociologists Harvey Molotch and Laura Norén (2010) note, the use of public toilets “involves doing the private in the public” (p. 1), leading us to examine “how neighbourhoods, cities, cultures and nations provide for some and not for others” (p. 2). Thus access to and use of public toilets forces us to confront the inherently political nature of an otherwise deeply private act.

The structural nature of public toilet provision is external to the GottaGo! Campaign, as they are an advocacy coalition of concerned community members, and are not directly responsible for creating or maintaining the public toilets within the City of Ottawa. While the research team and GottaGo! are attempting to partner with the City of Ottawa, ultimately the subject of the research and the structural issues around public toilets is external to the GottaGo! Campaign.

## **Hypothesis**

The *Flushing Inequality* research project examines the relationship between the City of Ottawa, the current public toilet facilities and the service user in order to determine if community needs are being met by the existing public toilet infrastructure in the City of Ottawa. The GottaGo! Campaign mobilized in response to an unmet need in the community: the lived experiences shared by GottaGo! Campaign membership suggest that the current public toilet infrastructure in the City of Ottawa is not

meeting the needs of service users, particularly those with chronic health conditions, people with disabilities, women and seniors.

The *Flushing Inequality* research team predicts that the findings of this research project will provide quantitative evidence to support the anecdotal information shared by the GottaGo! Campaign's membership concerning the inadequacy of the current public toilet infrastructure in the City of Ottawa. We anticipate that the data will reveal that, while the existing City of Ottawa public toilet infrastructure present as quality facilities which meet some identified accessibility criteria, the restricted availability of the public toilet facilities prevent the current infrastructure from meeting the needs of all service users.

### **Literature Review**

As feminist architect Leslie Weisman (1994) states, “the appropriation of space is a political act, [...] access to space is fundamentally related to social status and power” (p. 1). The public toilet is a site of tension in municipal public policy and urban design, as it involves meeting an inherently private need in a public setting. As such, an assessment of the distribution and design of public toilets can provide insight into the patterns of social inclusion and exclusion in a community or society. The literature about public toilet provision and design reinforces how a lack of quality and accessible public toilet facilities present as a barrier to full participation and active citizenship in a community, in turn reflecting systemic inequalities that privilege certain bodies over others based on structures of racism, classism, ableism, ageism, heterosexism and sexism. The distribution, availability and quality of public washrooms are often an indicator of greater social hierarchies that exist within our society (Plaskow, 2008, p. 52).

Elimination, or the disposal of waste matter from the body, is a physiological function that is common among all people, regardless of age, ability, race, gender, or class. For this reason, it is essential that each individual be afforded access to public toilets - spaces that are specifically

constructed to respond to basic human needs regardless of an individual's social location. The following literature review begins with a comparative analysis of public toilet infrastructure projects in the Canadian municipalities of Calgary and Vancouver. A subsequent review of the literature will seek to explore the way in which the lack of accessible and quality public toilets intersects with a range of oppressions, such as health conditions, age, ability, class and gender, followed by the gaps in the literature as it pertains to public toilet infrastructure and design in the City of Ottawa.

### **Comparative Analysis of Public Toilet Infrastructure in Canadian Municipalities**

In 2007, the City of Calgary introduced a strategic plan for addressing citizen concerns about the availability and quality of public toilets. This development followed a 2005 report by researcher Iris Li identifying gaps in the public toilet network in central Calgary. Li's report emphasized how Calgary's homeless population was particularly affected by the lack of accessible public toilets in Calgary's city centre and proposed a variety of recommendations for improving public toilets, ranging from the installation of portable toilets to the construction of hygiene centres (Li, 2005, p. 3). A 2007 strategic plan produced by the City of Calgary allocated a budget for toilet improvement and the installation of four automatic public toilets and eighteen portable toilets (City of Calgary, 2008, p. 10).

Similar activism has also taken place in Vancouver's Downtown Eastside, which is disproportionately affected by poverty and homelessness. City of Vancouver staff teamed with community partner, the Vancouver Area Network of Drug Users (VANDU) in an effort to address the need for safe, clean washrooms available during the evening hours, so as to reduce the amount of public elimination in the area by encouraging the use of public toilets, to ensure that public toilets in local parks are safe and open to the public on weekends, and to monitor the automated public toilets in the neighbourhood. The project contributed to building a healthier and cleaner street environment by promoting extended toilet operating hours and advocating for improved washroom maintenance in transitional and social housing units (City of Vancouver, 2012). The partnership between The City of

Vancouver and VANDU demonstrates that there is ample opportunity for citizens and municipal government to engage collaboratively and constructively on the issue of public toilets in order to advance the wellbeing of all citizens.

### **Public Toilets and Health**

The early twentieth century saw the establishment of complex modern sewage systems and the invention of the flush toilet. Additionally, the expansion of public transportation networks allowed workers to live further from their place of employment, relying on trains or streetcars to commute daily from their place of residence. The ability to travel further distances to one's workplace meant that men, and women who were gradually joining the labour market, were further from personal toilets, thus cementing the need for public toilet facilities (Greed, 2003, p. 47). Dr. Rosalind Stanwell-Smith (2010), a public health researcher from the London School of Hygiene and Tropical Medicine, suggests that public toilets play a significant role in reducing the spread of infection, as the provision of public toilets and hand-washing facilities promotes hygienic behaviour by reducing instances of street urination, particularly among populations facing urban sprawl and extended commute times.

Access to public toilets is a critical concern for individuals living with a range of chronic and debilitating health conditions, such as Crohn's disease, colitis, ulcers, irritable bowel syndrome, or dietary intolerances. Individuals with these conditions may experience urgent and frequent bowel movements, abdominal pain, diarrhea, nausea or vomiting due to inflammation of the gastrointestinal tract and colon lining, thus requiring immediate access to washroom facilities when an episode arises. Canada currently lacks legislation to provide washroom access for individuals suffering from chronic incontinences, which contributes to constant anxiety for those with health conditions, as they are unable to plan their daily activities around access to washroom facilities (Crohn's and Colitis Canada, 2014).

According to data collected in a 2011 study by Crohn's and Colitis Canada, individuals with

chronic health conditions express difficulty locating washroom facilities, or need to wait in line for access to an inadequate number of facilities. While in public, those with chronic health concerns have also been restricted from accessing toilet facilities that exist strictly for employees or paying customers. Under these circumstances, 44% of English respondents and 39% of French respondents expressed having had an accident in public due to inaccessible washroom facilities (Crohn's and Colitis Canada, 2014). When washroom facilities are unavailable or inaccessible for individuals with chronic health conditions, these populations face shame and stigma when forced to disclose health conditions to staff of private establishments, or risk experiencing isolation and alienation from social participation out of fear that the unpredictable nature of their health condition may result in an episode of fecal incontinence while in public.

### **Public Toilets and Aging**

While shame and stigma are common for individuals experiencing a chronic illness like Crohn's and Colitis, bladder problems are also far more common than is generally acknowledged. Aging impacts incontinence issues among the elderly, with safety, accessibility and quality of public toilets presenting a significant issue for Canada's aging population. According to Statistics Canada, seniors make up the fastest growing age group and the trend is expected to continue with projections of the number of seniors 65 years and older to double in the next 25 years (Statistics Canada, 2011).

Accessible public toilet infrastructure will be critical to meeting the needs of this aging population.

As the aging population increases, incidences of Alzheimer's and other dementias have also become more prevalent, with the potential to have substantial implications for the accessibility and safety of public toilets. Wilkinson, Hensche, and Handscome (1995) explain that incontinence experienced by those with dementia is often situational incontinence, which results from difficulty identifying and accessing a toilet or the inability to communicate one's toileting needs (p. 163).

Furthermore, Wilkinson et al. (1995) discuss the impact that dementia has on an individual's ability to

read and recognize abstract symbols, such as those featured on washroom signs and doors. As such, they advise that greater attention be given to appropriate labeling of toilet doors for people with dementia, and that words and symbols should be both simple and descriptive, including some indication of the allocated gender for the washroom (p. 165). A lack of easily identifiable and accessible public toilet infrastructure places the elderly at risk of social isolation, thus negatively impacting their psychological and physical health and wellbeing.

Access to an adequate and accessible public toilet network is vital to ensuring that all people have the opportunity to partake in community life. A 2008 report published by the United Kingdom Department for Communities and Local Government found that more than 50% of elderly people were unable to leave home as often as they would like due to lack of public toilets (Solomon, 2013, p. 17). As expressed by the campaign coordinator of a Welsh organization that seeks to provide research and programming to improve the wellbeing of seniors in Wales, “public toilets are a lifeline for older people, providing them with freedom, independence and the confidence [...] to lead fulfilling and active lives” (Dulin, 2012). Without access to public toilet facilities, the elderly are at increased risk of social isolation and depression, with the potential to greatly inhibit the quality of life of an aging demographic.

### **Public Toilets and Disability**

In the last quarter century, the social model of disability emerged to challenge the widely accepted medical model of disability. Unlike the medical model, which locates disability within the individual, the social model of disability emphasizes the inadequacy of the environment to meet the needs of the disabled person as imposed through social, political and economic barriers that exclude disabled people from full participation in society (Gehlert and Browne, 2012, p. 223). The lack of accessible public washrooms for people with disabilities is an expression of an inadequate environment that contributes to social exclusion.

Proponents of the social disability model advocate for policies that address the societal barriers that contribute to the exclusion and alienation of people with disabilities. In 2001, Ontario established the Ontarians with Disabilities Act (ODA), legislation which aims at achieving a barrier free Ontario for people with disabilities. From the ODA emerged the Accessibility for Ontarians with Disabilities Act (AODA), which outlines mandatory accessibility standards to identify and remove barriers faced by people with disabilities in key areas of their daily lives (MCCS, 2013). The Ministry of Municipal Affairs and Housing contends that the Ontario Building Code “requires barrier-free washrooms to be provided in public areas of most buildings”, further stipulating that “these washrooms must be situated on a barrier-free path of travel and are subject to a number of requirements addressing turning space, doorway widths, grab bars, counter heights and signage” (MCCS, 2013). Despite the enforcement of the AODA, people with disabilities continue to face numerous physical barriers, many of which become glaringly apparent in public washrooms.

In assessing the toilet facilities at a University of Toronto building, professor of Disability Studies, Tanya Titchkosky (2011) noted that the entrance was ramped and the elevators were equipped with audio indication, however there were no accessible washrooms on any of the floors. Although some washrooms were marked with the universal icon of access, upon measuring their door width, it was apparent that these facilities “met neither the university nor the provincial minimal disability accessibility standards” (Titchkosky, 2011, p. 71). These facilities are indicative of the presence of inaccessible washrooms that are erroneously labeled as “accessible”, whereby organizations appear to be complying with the law despite little effort being made to eliminate or reduce existing barriers to physically accessing washrooms facilities. Another example is found in the university campuses across British Columbia where a graduate student’s research revealed that there is a discrepancy between what accessibility features people with disabilities need and what is actually provided in “accessible” washrooms (Mandreck, 2007, p. 44). Similarly, Thapar et al. (2004) conclude that this pattern of

inaccessibility in “accessible” washrooms exists because accessibility measures are often exclusively determined by their compliance to the regulations as opposed to their functional access as experienced by the user (p. 288).

Both the legislation and the research focus primarily on the accessibility needs of those with mobility impairments and users of mobility devices, such as wheelchairs and walkers, as these needs are often much simpler to define and identify (Marston, 2002, p. 9). The focus on wheelchair users is evident in the design of the “universal access” logo depicting a person using a wheelchair, however there are various types of impairments that require unique accommodations, which are not fully addressed in the literature. According to the United Nations, one third of the world’s population is visually impaired to some degree (Siu, 2008, p. 313). For people with visual impairments, there is a need for consistency and predictability. For example, the towel and the soap dispenser need to be in a standardized location so they can be easily found (Molotch & Norén, 2010, p. 173). There’s also a need for non-visual cues to direct the people with visual impairments to toilets, such as sound indications or braille words giving directions to toilets or identifying if the toilet is assigned “male” or “female” (Siu, 2008, p. 316). People with visual impairments can also use their feet to find their way to washrooms using tactile guide path, which is predicated on the necessity of level floors free of obstructions to keep them from tripping (Siu, 2008, p. 315). Given that people with visual impairments depend on their tactile sense to read and navigate around a toilet, the latter needs to be kept clean to help people with visual impairments avoid touching filth, as well as unobstructed by possible tripping hazards like floor mats or uneven terrain (Siu & Wong, 2013, p. 632).

When there are no accessible washrooms, people are subject to the “bladder leash”, a term describing how individuals are forced to limit how long they can stay in a place before needing to access a washroom, thus requiring them to restrict their level of participation (Kitchin & Law, 2001, p. 289). A lack of truly accessible toilets that fail to meet the needs of people with disabilities,



marginalizes this vulnerable group and limits their participation in social and political life, while disregarding their right to safety and dignity.

### **Public Toilets and Gender**

Bathrooms are one of the few explicitly gendered spaces remaining in North America. While many spaces are implicitly gendered, bathrooms are a space where denial of access based on gender is widely accepted, sometimes even encouraged. There are also issues of gender roles to consider, such as changing tables only being offered in female designated bathrooms, alluding to an outdated expectation that mothers are the only parents who provide care for children (Anthony & Dufresne, 2007, p. 297). This has far-reaching implications for the design and provision of washrooms, thus it is imperative to consider bathrooms as gendered spaces and the potential impacts this design has on the safety of marginalized genders.

Edwards and McKie (1996) analyzed myths surrounding why queues build up around women's public toilets, pointing to both social and biological differences. Regarding social differences, women urinate sitting down in an enclosed cubicle and use toilet paper, whereas men can urinate standing at an unenclosed urinal. Biologically, the female genitourinary system is internalized, whereas that of the male is externalized. Furthermore, approximately a quarter of all adult women are menstruating at any one time, which adds to the length of time spent in the toilet as well as the number of toilet visits required in comparison to men. Despite these social and biological differences, urban design rarely takes these factors into account when considering the number of bathrooms available to women, resulting in a gendered "potty parity" whereby the long line for the women's bathroom becomes a source of humour rather than an issue for concern and investigation (Edwards & McKie, 1996, p. 216).

Terry Kogan (2007), a professor of Law at the University of Utah, examines women and public restrooms in history using the lens of critical architectural theory. He argues that during the nineteenth century in America, gender-segregated restrooms grew out of a need to regulate women's participation

in the public sphere and protect ‘vulnerable’ members of society (p. 297). Following upon this theme of bathrooms as a site of vulnerability, Alex Faktor (2011) from the University of British Columbia, argues that rather than fostering security, current gendered norms for the design of public toilet facilities create sites of insecurity for those with marginalized genders. Rachel McKinnon (2014), a professor of philosophy at the University of Calgary, discusses the experiences of transgender persons using public toilet facilities. For transgender persons who can “pass”, in that it is not easily discernable that the individual is transgender, there is a pervasive fear of being “detected” when using gendered washroom spaces (p. 858). This is more than an idle threat, as many transgender persons have experienced harassment and brutal physical violence in gendered spaces such as bathrooms or locker rooms (Cavanagh, 2010, p. 10). As a result, transgender persons may experience great anxiety when using public washrooms, or even exhibit situational avoidance of public toilet facilities use due to their fear of violence or harassment (McKinnon, 2014, p. 861).

### **Public Toilets and Class**

Availability and access to public toilet infrastructure intersects with class and socioeconomic status, resulting in substantial implications for people experiencing homelessness or economic disadvantage. In cities with public toilet infrastructure, the majority of facilities are located in city centres where they can be accessed by the majority of the urban core population. As urban centres become increasingly gentrified, economically disadvantaged populations are pushed to the fringes of the downtown core, where fewer public toilet facilities are likely to exist. The resulting uneven geography of public toilet availability is indicative of the “service deserts” that exist in rural regions and areas populated by economically disadvantaged populations (Tod & Hirst, 2014, p. 8).

Unlike those who have access to housing, people experiencing homelessness face barriers accessing washroom facilities. Although some drop-in spaces are available in larger cities during the day, shelters often restrict access to mealtimes, evenings and overnight in order to offer programs and

services during the day, forcing homeless populations to seek relief in private establishments if no public toilet facilities are available (Cloke et al., 2011, p. 201). Due to the fact that many homeless people struggle to gain regular access to shower and laundry facilities, their appearance attracts unwanted attention and may alert staff or employees of a private establishment to their use of the washroom facilities, thus leading to experiences of stigma and shame accessing toilets in businesses or restaurants (Cloke et al., 2011, p. 201).

In his publication *City of Quartz*, urban theorist Mike Davis (1990) discusses the way in which access to public toilet facilities in Los Angeles has become the battleground for a “war on the poor” as the elimination of public toilets was legitimized in order to make way for the construction of “quasi-public restrooms” in restaurants, office buildings and galleries, which can be freely accessed by tourists or building employees, but not by “vagrants and other unsuitables” (p. 233). In order to enforce these policies and determine who is considered “acceptable” to access toilet facilities, many private businesses and restaurants are employing extensive security measures to monitor those entering and exiting the washrooms, either by means of security camera monitoring or the use of security guards (Cloke et al., 2011, p. 201). The strategic positioning of washroom “gatekeepers”, employees who must provide a key or code to unlock washroom facilities, can also create a deterrent for people experiencing homelessness, as they may be dismissed for not being “paying customers” or simply denied based on their physical presentation.

The stigma facing homeless populations stems from the fact that people experiencing homelessness are constrained to exist in public spaces thus becoming “constant targets of regulation, criminalization, expulsion, and erasure” (Amster, 2003, p. 214). These patterns of criminalization, containment and control have led homeless populations to be associated with deviant behaviours such as illicit drug use, vandalism, and sexual activity in public toilets, resulting in an ongoing reluctance to expand public toilet infrastructure in city centres (Harris, 2011).

### **Analysis of the Literature**

There are two categories of barriers that prevent an individual or group of people from accessing a public toilet: tangible barriers and intangible barriers. Tangible barriers consist of physical obstacles, impediments or structures that render a space inaccessible. Tangible barriers consist of the way in which an individual interacts physically with the surrounding environment. For an individual with a physical disability, a physical barrier can assume the form of stairs and narrow doorways that inhibit the access of mobility devices to be used in the space, or a lack of handrails or grab bars in the washroom. For an individual with a visual impairment, uneven terrain, signage that lacks braille, or the use of mats surrounding the toilet can render the space inaccessible. For a parent of a young child, this could consist of a lack of diaper changing facilities available on the premises. Conversely, intangible barriers emerge from the way in which an individual interacts socially and psychologically with the environment. These consist largely of two distinct, yet interacting barriers: safety and stigma. For a woman, a bathroom may be rendered inaccessible if they are poorly lit or located in an area that is not visible to the surrounding area, thus making the woman feel unsafe. For a homeless individual, the bathroom may be perceived as inaccessible because of the stigma they feel from other users in the washroom, the staff supervising the space, or the security patrolling the premises. For a transgender person, experiences of safety and stigma intersect: feeling stigmatized accessing a gendered washroom is often rooted in threats of violence that transgender people experience when accessing gendered spaces.

### **Gaps in Current Knowledge**

The issue of quality and accessibility of public toilets has been examined in various major cities across the world, and the literature presents a range of concerns facing marginalized populations, such as the elderly, those with chronic health conditions, people with disabilities, people facing poverty or homelessness, women and queer communities. Throughout the literature, there was evidence of public

toilet assessments or strategies undertaken in the cities of Toronto, Calgary, Vancouver and Portland, as well as European municipalities. Despite Ottawa being the nation’s capital, to date there has been no examination of the quality and accessibility of public toilets in the city of Ottawa, although the 2014 study *Talking Toilets: Assessing the Accessibility of Public Toilet Provision in Ottawa, Ontario* has presented qualitative evidence that such a review was needed in the City of Ottawa. In the *Talking Toilets* report, Canham (2014) concludes that participants “expressed conflicting opinions of public toilet provision in Ottawa as several locations were described as both unsatisfactory and satisfactory, in terms of accessibility and availability, by different participants” (p. 16). Although the *Talking Toilets* study generally concluded that there is a sense of dissatisfaction among service users in the City of Ottawa regarding the current state of public toilet infrastructure, Canham acknowledged that the inconsistency in participant responses “could be a result of location specific differences in design layout, operating hours, and/or maintenance as well as individualistic standards and requirements for each participant as a result of different life experiences” (2014, p. 16). As such, the *Talking Toilets* study recommended that further research be conducted so as to determine “where toilet availability and accessibility is found to be unsatisfactory” (2014, p. 16).

While the City of Ottawa is currently tabling its budget for the next three years and planning expansions to Ottawa’s Light Rail Transit (LRT) system, the GottaGo! Campaign is advocating for the installation of more public toilets. Our research on the availability, quality and accessibility of the toilets in Ottawa addresses the literature gap outlined by Canham’s research and intends to support the GottaGo! Campaign’s advocacy by providing quantitative data to support the qualitative information presented in Canham’s *Talking Toilets* study from 2014, creating a visual assessment tool that the GottaGo! Campaign can use to assess the standard of all public toilets in the City of Ottawa, and proposing recommendations that the GottaGo! Campaign can use to lobby the City of Ottawa for a comprehensive public toilet strategy.

### **Methodology**

The following methodology is informed by a participatory action approach to research, as we seek to actively engage service users throughout the research process. In doing so, the *Flushing Inequality* research team strives to advance the collective consciousness of the research team, the community agency and service users about the social implications of inadequate public toilet provision; to forge partnerships between Carleton University’s School of Social Work, community agencies, and community leaders; and empower service users to use the research as a means to advocate for effective policy change at the municipal level to address the need for available, accessible and quality public toilet facilities in the City of Ottawa.

In partnership with the GottaGo! Campaign, the *Flushing Inequality* research team has recruited members of the GottaGo! Campaign’s membership and core team to serve as an advisory committee for the development of the research plan, design of the research instrument, and dissemination of the research findings. The advisory committee consists of social work educators, senior citizens, retired engineers, an individual with a physical disability, and representatives from Crohn’s and Colitis Canada. The committee has provided input into the design of the research plan and the creation of the research instrument for the public washroom assessment. In accordance with the goals of community-based research, we intend to disseminate the findings of this study using a variety of methods that will advance the social justice orientation of the research. For example, the advisory committee has expressed interest in an executive summary of the findings and recommendations for City of Ottawa staff, and a publication tailored to be accessible to the public such as an infographic to visually depict the quantitative findings which can be shared on the GottaGo! Campaign’s social media platforms.

### **Data Collection**

The *Flushing Inequality* research project employs a quantitative approach to assess the availability, accessibility and quality of a sample of public toilet facilities in the City of Ottawa. In

order to determine how the data would be collected, the research team worked in partnership with the advisory committee to design a comprehensive “Visual Public Toilet Assessment Tool” (see Appendix B). The research instrument proposes a total of 47 criteria against which each public toilet facility in the research sample will be evaluated. The criteria are divided into three categories to reflect the three areas of interest in the research question: availability (9 criteria), accessibility (21 criteria, consisting of both physical accessibility and social accessibility), and quality (19 criteria). As requested by the advisory committee, our “Visual Public Toilet Assessment Tool” largely presents the criteria with binary options, in order to determine if each criteria is met or unmet by the public toilet facility. In the event where a binary option was not viable for the criteria, such as for recording the distance from transit stops, seasons or times of operation, or gender label, categories or “not applicable” options were used.

The criteria for the research instrument were determined in collaboration with feedback from the advisory committee and informed by standards and limitations of public toilet design outlined in the literature. The physical accessibility criteria drew heavily upon standards mandated by the Ontario Building Code for the design of public washroom facilities, particularly as this relates to degree of ramp incline, stall width, sink height, sink functionality, door handles and the presence of handrails in the stalls (Government of Ontario, 2001). The literature from Siu (2008) and Sui et al. (2013) informed the accessibility criteria designed to accommodate people with visual impairments, such as braille on bathroom signage and the need for level ground and unobstructed floors in the washroom space.

Furthermore, the literature from Cavanagh (2010) and Greed (2003) were integral to determining quantifiable criteria by which to assess the social accessibility of public toilet spaces. This involved including indicators on our assessment tool to identify the presence of gender neutral or family facilities to ensure safe spaces for transgender people, the need for adequately supervised, visible and

well-lit facilities to ensure the safety of all washroom users, and the provision of bio-hazard disposal units to prevent injury or infection from potentially dangerous materials.

Indicators for toilet quality drew heavily from design and maintenance recommendations proposed by Clara Greed (2003) regarding the need for running water to perform hand washing and accommodate ablution rituals. In terms of the gendered implications of public toilet quality, Anthony and Dufresne (2007) address the need for all washrooms to provide change tables, regardless of the gender, while Edward and McKie (1996) emphasized the importance of providing multiple toilets, particularly in women's washrooms, since women often are forced to wait in lines for access to toilet facilities. As a result of these findings, the assessment tool includes indicators to assess whether change tables are provided in both genders of washrooms, whether there are multiple stalls available, and if there are line-ups present at the time of assessment.

The availability criteria draw heavily upon the anecdotal data presented by the advisory committee and the GottaGo! Campaign's membership, which have expressed that City of Ottawa facilities are often seasonally closed or have limited hours of operation which impede community members from readily accessing the facilities. This anecdotal data has been captured and analyzed in a recent report by Carleton University researcher, Rachel Canham titled *Talking Toilets: Assessing the Accessibility of Public Toilet Provision in Ottawa, Ontario* (Canham, 2014). In a study of public transit ridership in Portland, Oregon, K.M. Washington discusses the importance of attending to the interplay between public toilet provision and public transit usage, emphasizing that a robust public transit plan should be accompanied by a network of public toilets for service users (2014, p. 18). This has been echoed by advisory committee members who have expressed concerns about the lack of public toilet facilities in close proximity to public transit routes, an indicator which is assessed by our research tool.

For data collection, the *Flushing Inequality* research team visited the first five public toilet facilities together as a group in order to establish a baseline for the visual assessment. These five toilets



were all located in the central region of the City of Ottawa, consisting of one location for each facility type: one comfort station, one athletics facility, one community centre, one museum, one “other” facility located in a pedestrian walkway. As such, the research team could assess the efficacy of the research instrument and make any adjustments needed to the tool to account for questions or unexpected findings that arose during the data collection. The research tool was then amended accordingly, and greater consistency was established among all members of the research team. Following this initial survey of the public toilet facilities, the researchers visited all subsequent toilets in pairs, in order to ensure consistency and reliability of the data collected and to mitigate any risks posed to the researcher when visiting public toilet facilities in unfamiliar areas. The “Visual Public Toilet Assessment Tool” was converted into an online form using Google Forms, thus allowing the research team to input the data electronically on location using smart phone or tablet technology. In order to accurately assess the toilet facilities, the research team brought a tape measure to each location, as many accessibility criteria are determined based on measurements of public toilet dimensions. The research team visited all facilities during standard hours of operation, Monday to Saturday between 9:00 am and 5:00 pm. Unfortunately, since accreditation was denied in order to obtain keys or swipe cards to access facilities, if the research team was unable to gain entry to a facility during the hours of operation, the availability criteria was assessed for the location and the researchers noted that the facility was unavailable for assessment of accessibility and quality criteria. The availability or lack of availability of some public toilet facilities revealed itself to be an important finding for the research project concerning the current state of public toilets in the City of Ottawa and was considered in the data analysis.

Upon completion of the assessments of the sample of 100 toilets, the research tool, data collected, and the recommendations will be provided to the GottaGo! Campaign to inform their advocacy strategy and to help their membership to understand the trends in public toilet infrastructure in the City

of Ottawa. The GottaGo! Campaign has indicated their interest in continuing this data collection beyond this research project in order to map and assess the availability, accessibility and quality of each of the 419 public toilet facilities that are owned and operated by the City of Ottawa. Due to the fact that no sensitive information is contained within the data collected, the storage and security of the data poses no risk to the research team, the community agency or the general public.

### **Sampling Procedures**

Prior to the undertaking of this research project, the GottaGo! Campaign worked closely with Sarah Good, an undergraduate geography student at Carleton University. Sarah mapped the locations of 419 public toilet facilities owned and operated by the City of Ottawa. This data was provided to the *Flushing Inequality* research team, who then sought to create a representative sample of 100 public toilet facilities, based on geographic location and the toilet facility type.

The following process was used to create a representative sample of toilet locations and facility types:

1. From the total of 419 toilets, the toilets were organized into four regional districts: Central Ottawa, West Ottawa, South Ottawa and East Ottawa. The totals for each region were noted.
2. Upon dividing the toilets into the four regions, each toilet was labeled according to the following five facility types: athletics and recreation facilities (i.e. pools, arenas, tennis clubs); community centres; libraries and museums; park comfort stations (free standing public toilet facilities); and other facilities (i.e. public toilets located inside City of Ottawa buildings, such as City Hall or Centrepointe). The total number of toilets in each facility type was noted.
3. The data was sorted a third time to determine the number of each facility type in each region in order to determine the proportional representation of facility types per region.
4. Next, the percentage of toilets for each facility type per region was calculated and the actual number of toilets for a sample of 100 toilets was determined.

5. From within the “population” of 419 toilets, toilets were then randomly selected based on location and facility type to correspond with these totals (refer to Table 1 for the visual breakdown of the research sample).

*Table 1: Breakdown of research sample by toilet location and facility type*

REGION	# OF PUBLIC TOILETS IN POPULATION	PERCENTAGE OF PUBLIC TOILETS	# OF PUBLIC TOILETS IN SAMPLE
<b>Central Ottawa</b>	<b>115</b>	<b>28 %</b>	<b>28</b>
Athletics and Recreation	58	50 %	14
Comfort Station	9	7 %	2
Community Centre	24	21 %	6
Library and Museum	5	5 %	1
Other	19	17 %	5
<b>East Ottawa</b>	<b>122</b>	<b>29 %</b>	<b>29</b>
Athletics and Recreation	47	39 %	11
Comfort Station	5	4 %	1
Community Centre	22	17 %	5
Library and Museum	41	34 %	10
Other	7	6 %	2
<b>South Ottawa</b>	<b>89</b>	<b>21 %</b>	<b>21</b>
Athletics and Recreation	33	37 %	8
Comfort Station	4	5 %	1
Community Centre	26	29 %	6
Library and Museum	16	18 %	4
Other	10	11 %	2
<b>West Ottawa</b>	<b>93</b>	<b>22 %</b>	<b>22</b>
Athletics and Recreation	26	28 %	6
Comfort Station	7	8 %	2
Community Centre	25	27 %	3
Library and Museum	16	17 %	4
Other	19	20 %	4
<b>TOTAL</b>	<b>419</b>	<b>100 %</b>	<b>100</b>
	<b>public toilets in population</b>	<b>of public toilets</b>	<b>public toilets in sample</b>

A sample of 100 toilets was agreed upon by the research team in response to the GottaGo! Campaign’s request for a visual assessment of 80 toilets. Recognizing that many toilets could be rendered inaccessible during the winter months, the research team determined that a sample of 100 toilets would ensure that the GottaGo! Campaign’s request would be fulfilled, while also allowing for flexibility within the sample should any toilets be inaccessible to the research team. Upon completion of the data collection, 92 of the 100 toilets could be assessed by the research team. Of the 100 toilets in

the original sample, 8 toilets were eliminated for the following reasons: 1) upon arrival at the designated facility, the toilet was determined to be a portable toilet, and not a permanent facility, thus not meeting the definition outlined for a “public toilet” as a permanent and fixed unit; 2) toilet facilities were demolished or had been closed to the public indefinitely since the time of the survey conducted by Sarah Good; 3) toilet had two separate entrances in a single building and was erroneously recorded twice as separate facilities in the survey prepared by Sarah Good. As such, the final sample surveyed by the research team was 92 public toilets. Refer to Appendix D for the full research sample and data collected from each public toilet assessed.

### **Method of Analysis**

The *Flushing Inequality* research project uses frequency distributions to analyze the data collected through the “Visual Public Toilet Assessment Tool”. The quantitative data was coded and analyzed using frequency distributions prepared using IBM SPSS Statistics software for statistical data. Since the questions on the survey tool offer binary options, frequency distributions have been used to provide a visual depiction of the number of City of Ottawa facilities that meet the availability, accessibility and quality criteria, as well as those which fall short. Frequency distributions for each of the criteria on the research instrument also allowed the research team to isolate which criteria need improvement in City of Ottawa facilities, as well as to indicate areas of success that can be replicated in future public toilet designs.

The *Flushing Inequality* research team anticipated that our data collection process would entail certain limitations, however we sought to mitigate these limitations through the design of the research instrument and the data collection methods. Firstly, we acknowledge that the data collected would reflect subjective observations or experiences of the research team members regarding accessibility and quality. For example, one group member’s threshold for safety may greatly differ from that of another individual, based on our unique social locations and lived experiences. For this reason, we

chose to have the research team attend a selection of five public toilets in the research sample as a full research team in order to establish a baseline for the visual assessment criteria. Following this initial team assessment, the researchers then visited each public toilet site in pairs to conduct the visual assessment in order to ensure reliability and consistency of the data collected.

Secondly, the visual assessment only captured the observations of the research team with regards to availability, accessibility and quality. Although the research team attempted to consult with members of the advisory committee who have experienced physical barriers to public toilet access, the visual assessment data was filtered through the lens of able-bodied researchers and a predominately female team, although one male researcher joined the team in the late stages of data collection. In order to mitigate the effects that this could potentially have on the data collected, the research instrument was designed to use clear, measurable criteria for most questions so as to reduce any need to interpret the categories at the point of the visual assessment.

Lastly, in order to ensure consistency for the conditions for the research when measuring the availability, accessibility and quality criteria, the research team attended the bathrooms during standard operating hours for the facilities. The research team conducted the research during daylight hours, between 9:00 am and 4:00 pm on weekdays or weekends. Unless the facility was deemed to be “open to the public by request only”, as was the case with some community centres in rural regions which are only opened when rented, facilities that were closed upon arrival were postponed and visited at a later date when the researcher could gain access within the facility’s operating hours. This ensured that the availability criteria were as precise as possible, and that quality and accessibility criteria could be captured in as many public toilet facilities as possible.

Due to the time constraints of the research project, there are other limitations that the research team was unable to control. Due to the timing of the course, the visual toilet assessments had to be conducted during the winter months, rendering many facilities unavailable due to seasonal closures.

The research team and the GottaGo! Campaign’s advisory committee agree that the availability data for seasonally closed public toilets is still important to collect, as the need for public toilet facilities does not disappear during the winter months. As a result, these closures were accounted for, though the research team recognizes that our findings for the availability and quality of current public toilets could be different if the assessments were conducted in the summer months.

In order to highlight the lived experiences of service users and community members who have expressed concern over the limited availability, inaccessibility and questionable quality of City of Ottawa public toilets, our discussion of the quantitative research findings were supplemented with qualitative data collected from *Talking Toilets: Assessing the Accessibility of Public Toilet Provision in Ottawa, Ontario*. The qualitative data from the report was reviewed and organized into themes related to public toilet availability, accessibility and quality for service users in the City of Ottawa spanning a range of abilities, genders and socio-economic backgrounds. The qualitative data yielded through the *Talking Toilets* research project “sought to determine how public toilets in Ottawa impact the lives of its citizens and how accessibility to public toilets affect the ways in which the city is used” (Canham, 2014, p. 2), thus providing qualitative data to support the findings of the *Flushing Inequality* research project and inform the social implications of the research.

## Findings

The findings from the survey are summarized using frequency distributions to indicate the prevalence of toilets that meet the criteria outlined by the research tool compared to the prevalence of those that do not. As the results of the survey were collected using nominal level data, there are no means to assess statistical significance of the data. Instead, for the purposes of this research report, variables that yielded particularly revealing findings related to the availability, accessibility and quality are graphically depicted here, as they are discussed at length in the proceeding sections. The remaining frequency distribution tables for all variables can be found in Appendix E.

The findings of this research study confirm the hypothesis that City of Ottawa public toilets present as quality facilities, with all toilets universally meeting almost all quality criteria, with few exceptions that will be discussed in the following section. Moreover, nearly all City of Ottawa public toilets surveyed were equipped with at least one unit or stall designated as wheelchair accessible, thus indicating an effort to fulfill AODA standards for accessibility. Although upon further investigation of the public toilet facilities, a large number of facilities fail to meet a number of accessibility criteria outlined in the Ontario Building Code, based on stall dimensions, toilet height, door width, accessible doors and faucets, and grab bar length. This observation confirms the hypothesis that City of Ottawa public toilets will meet some accessibility criteria. Further discussion and disaggregation of these results will follow. Lastly, the findings reveal that 45% of the public toilets surveyed were closed, thus rendering them unavailable for full assessment by the research team. This confirms the final aspect of the hypothesis which predicted that the restricted availability of the public toilet facilities prevents the current public toilet infrastructure in the City of Ottawa from meeting the needs of all service users. The following section will provide a summary of the data collected, organized based on quality, accessibility and availability criteria.

## Quality

Figure 1: Toilet units or stalls in women’s washroom in public toilet facility (n=51)

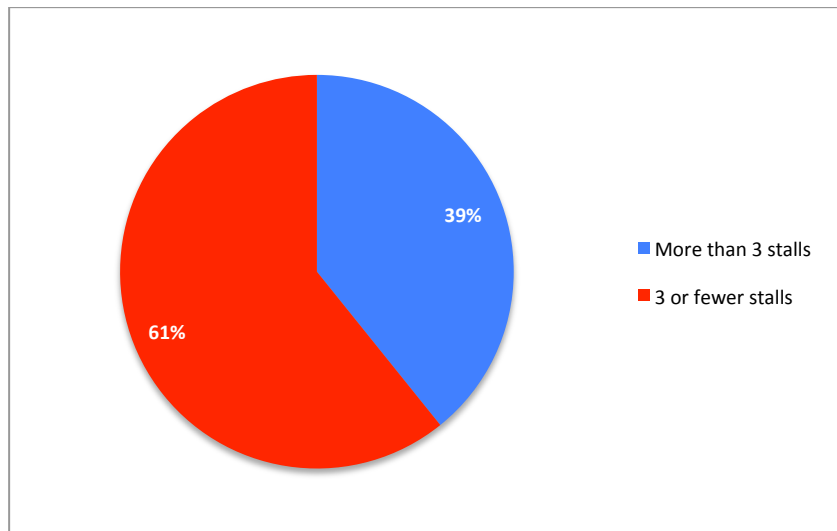


Figure 1 depicts the number of toilet units or stalls in the women’s restroom in the public toilet facility. Our research revealed that of the 51 toilets available, 20 facilities had more than 3 toilets, while 31 toilets had less than 3.

## Accessibility

Figure 2: Public toilet equipped with sanitary disposal units vs. biohazard disposal units (n=51)

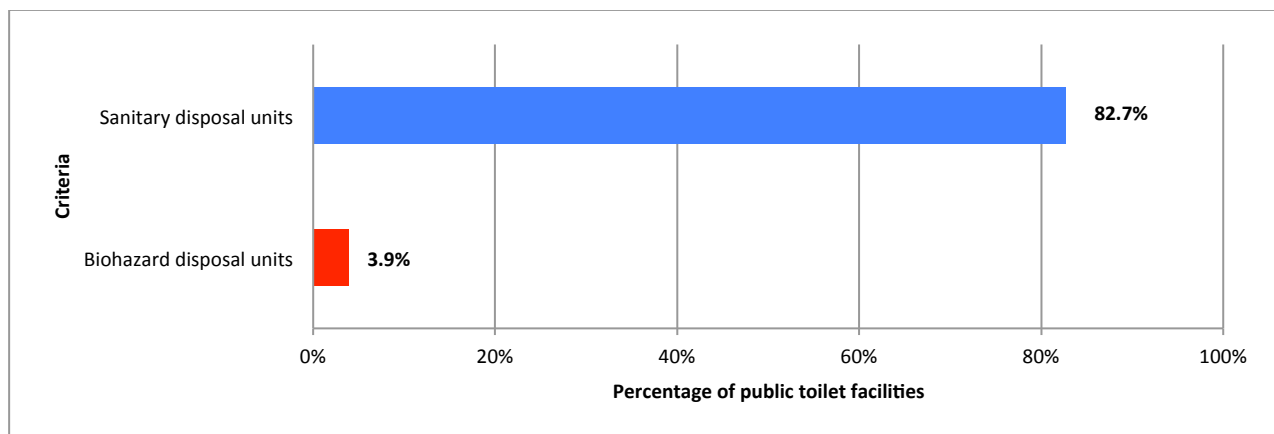


Figure 2 illustrates the percentage of women’s public toilets surveyed that were equipped with sanitary waste disposal units compared to the percentage of toilets surveyed that were equipped with biohazard waste disposal units. According to the visual public toilet assessment, of the 51 toilets available, 42



were equipped with sanitary waste disposal units while 9 had none. Conversely, of the 51 toilets available, only 2 were equipped with biohazard waste disposal units while 49 were not equipped with biohazard disposal units.

*Figure 3: Accessibility criteria for designated "wheelchair accessible" public toilets (n=47)*

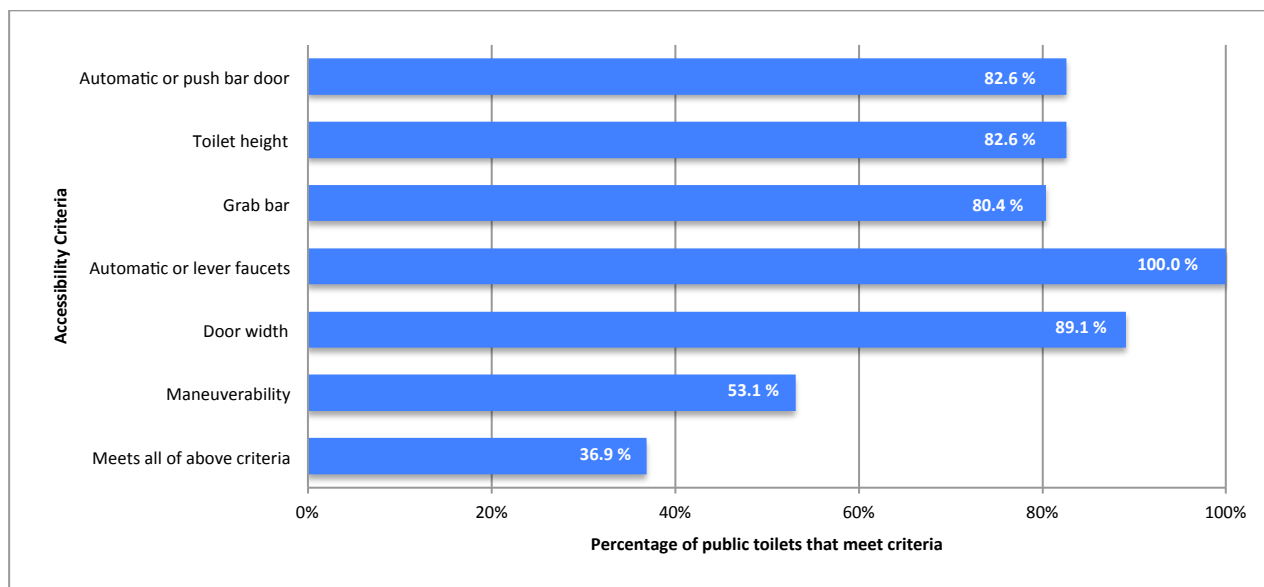


Figure 3 depicts a range of accessibility criteria that were surveyed in each of the 51 public toilets available for assessment. Firstly, there were 47 public toilets with a designated wheelchair accessible stall or standalone wheelchair accessible unit, while 4 lacked any unit designated as accessible. Secondly, the doorways to the stall or the standalone doorways met or exceeded the minimum Ontario Building Code standard of 85 cm in 41 bathrooms, while 6 bathrooms had doorways too narrow. Moreover, the doors to the bathrooms of 38 units were equipped with a push bar or automatic door opener, while 9 possessed other door handle devices such as a pull handle or twist knob. Once inside, the units or stalls of the designated wheelchair accessible public toilet, only 25 units met the Ontario Building Code of 150 cm by 160 cm, while 22 failed to meet code, rendering the space too constricted to allow for the manoeuvring of a mobility device. Next, the Ontario Building Code dictates that wheelchair accessible bathrooms must have grab bars fixed to the wall beside the toilet which must be at least 76 cm in length. Among the 47 public toilets with designated wheelchair accessible units, 37 of

the toilets had grab bars that met these criteria, while 10 either had no grab bars or grab bars that did not meet the current standards. Likewise, to meet Ontario Building Code standards, a toilet's height must fall between 40 cm and 46 cm. Of the 47 toilets designated as wheelchair accessible units, 38 met code, falling between these measurements, while 9 did not meet code, either being shorter or taller than these measurements. Lastly, the sink faucets must be equipped with either a lever handle or automatic handle in order to enable individuals with limited dexterity to manipulate the controls. Of the 51 public toilets surveyed, all of the 47 toilets had sinks that met this criteria.

*Figure 4: Public toilet accessibility criteria for the visually impaired (n=51)*

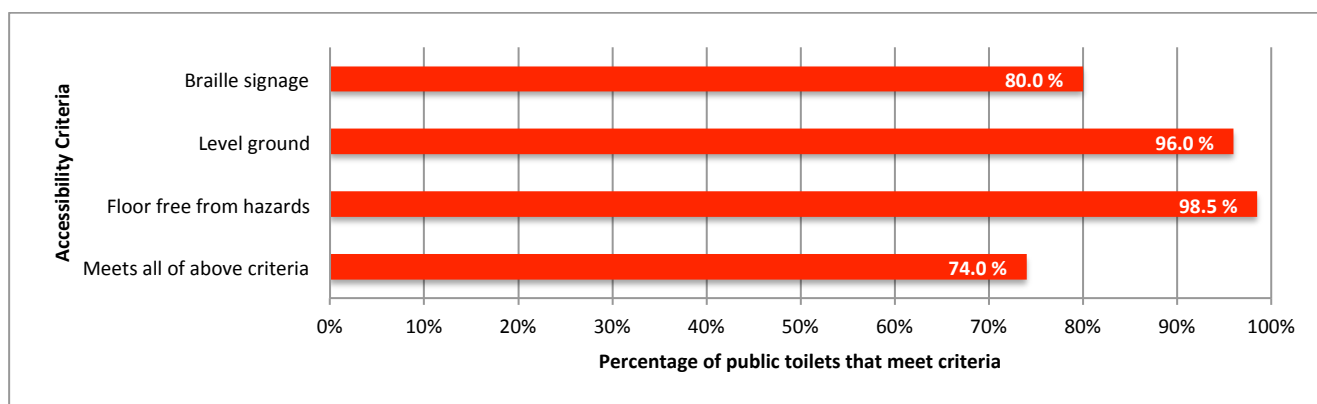


Figure 4 illustrates public toilet accessibility criteria that relate to the needs of visually impaired populations. Among the 51 public toilets that were available for assessment, 41 of the toilets had signs that were equipped with braille. Another important accessibility factor for people with visual impairments is the need for level ground that is free from hazards. Of the 51 City of Ottawa public toilets that were surveyed, 50 had floors that were free from hazards that could lead someone to trip or slip, particularly if they are unable to see the obstacles in their immediate surroundings. Furthermore, the 48 of the facilities were surrounded by level terrain around the facility.

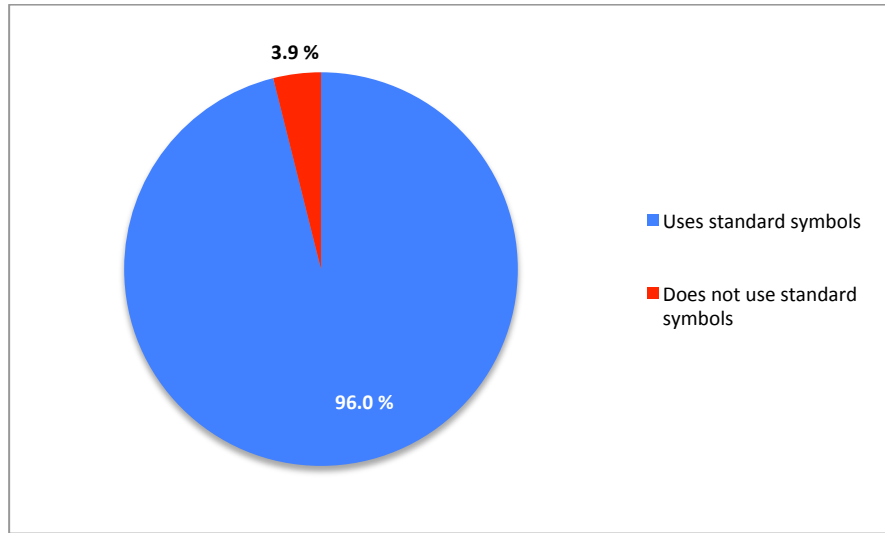
*Figure 5: Public toilet signage (n=51)*

Figure 5 illustrates the number of public toilets that are marked by signage featuring standard symbols, such as a wheelchair icon, or male and female silhouette icons. According to the visual public toilet assessment, of the 51 toilets available, 49 were marked with signage featuring standard symbols, while 2 were not. In addition to the use of standard symbols, according to Figure 4, a significant number of public toilets use braille on the signage. Among the 51 toilets available, 41 were marked with signage featuring braille, while 10 were not.

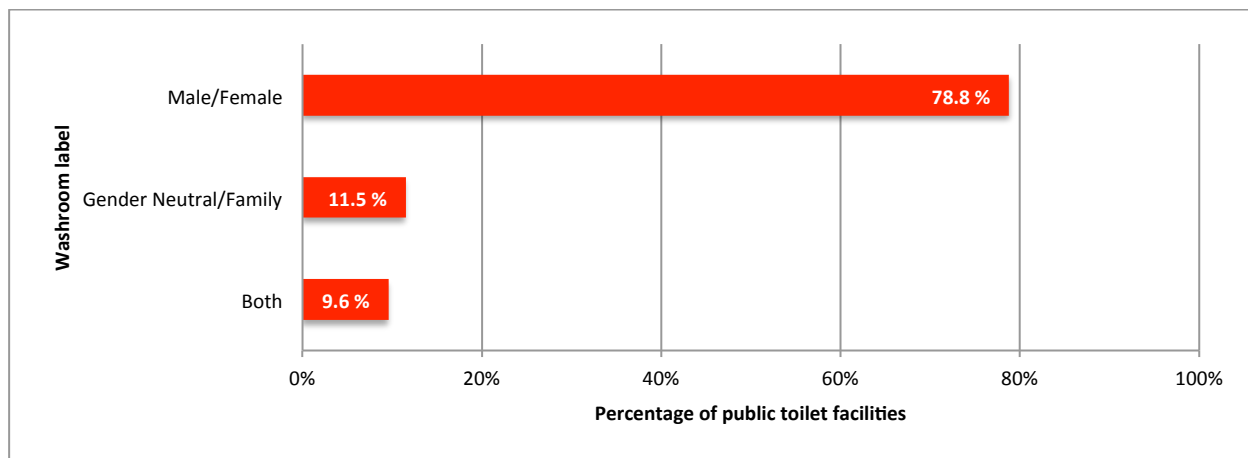
*Figure 6: Public toilet equipped with gender neutral or family facilities (n=51)*

Figure 6 depicts the number of public toilets with facilities that are designated as family or gender neutral units. Of the 51 toilets available, 41 facilities had only sex-segregated as male/female units,

while 6 facilities were strictly gender neutral and 5 facilities had both sex-segregated and gender neutral units within the same facility.

### Availability

Figure 7: Public toilet availability at time of survey (n=92)

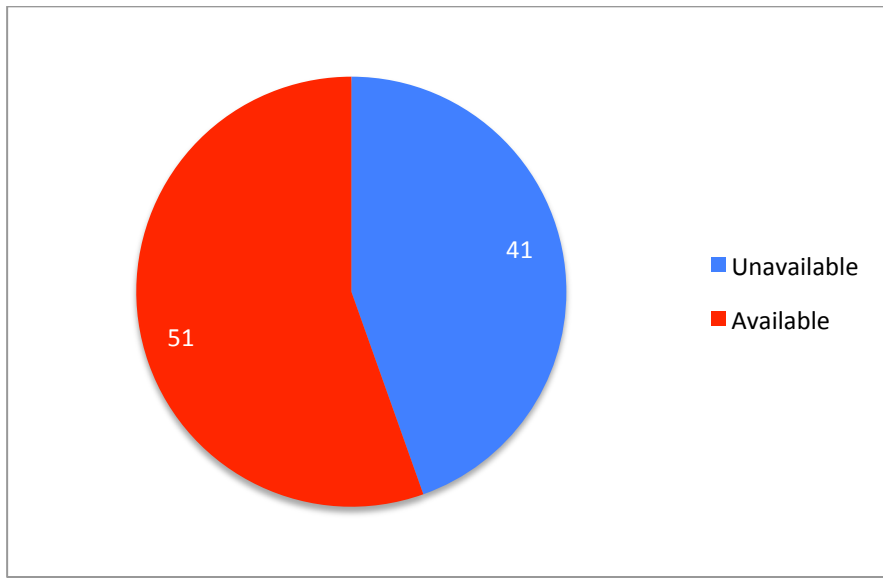


Figure 7 depicts whether public toilets were available at the time of the survey. Of the 92 toilets that comprised the research sample, 51 of the toilets were available to the research team during standard operating hours (Monday to Saturday between 9 am and 5 pm) while 41 were closed and unavailable.

Figure 8: Public toilet location (n=92)

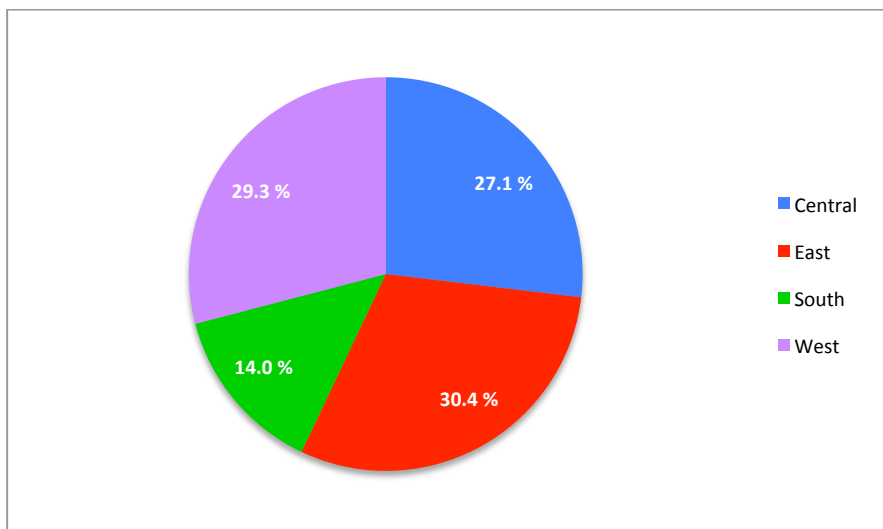


Figure 8 categorizes the 92 toilets in the research sample based on the regional boundaries in which they are located. Based on the sampling method, steps were taken to ensure that the sample was a proportional representation of the regional distribution of public toilets in the City of Ottawa. As a result, the sample of 92 toilets consisted of 25 public toilets in the Central Ottawa region, spanning from Kitchissippi to Sandy Hill; 12 public toilets in the South Ottawa region, spanning from Riverside to Osgoode; 27 public toilets in West Ottawa, spanning from Nepean to Dunrobin; and 28 public toilets in East Ottawa, spanning from Vanier to Cumberland.

*Figure 9: Regional density of public toilet location (n=92)*

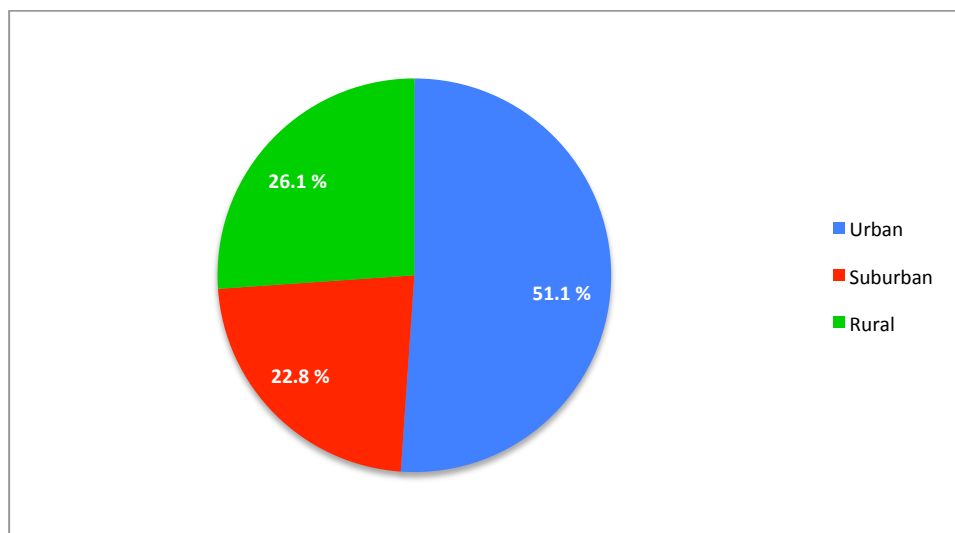


Figure 9 expands upon the location data presented in Figure 8, by indicating how many public toilets were located in urban, suburban or rural regions. These classifications were determined by the City of Ottawa designations which are calculated based on population density and total area for each ward (City of Ottawa, 2015). The ward in which each toilet is located was determined, resulting in the following distribution of toilets by regional density: 47 in urban regions, 21 in suburban regions, and 24 in rural regions.

Figure 10: Public toilet facility type (n = 92)

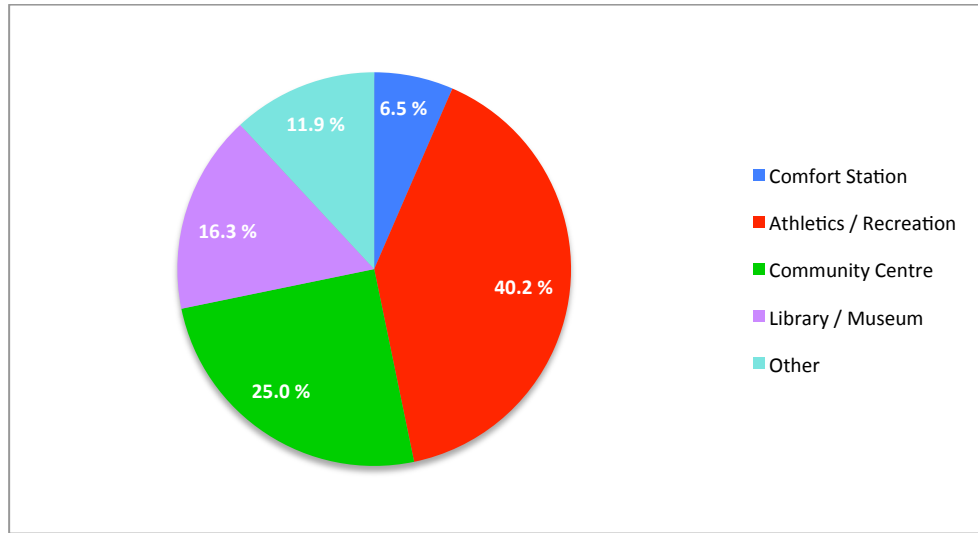


Figure 10 depicts the distribution of the sample of 92 public toilets by facility type: 6 public toilets located in comfort stations, 37 public toilets in athletics and recreation facilities; 23 public toilets in community centres; 15 public toilets in libraries and museums; and 11 public toilets in other facilities, such as civic administration and City of Ottawa operations buildings.

Figure 11: Public toilet seasons of operation (n=92)

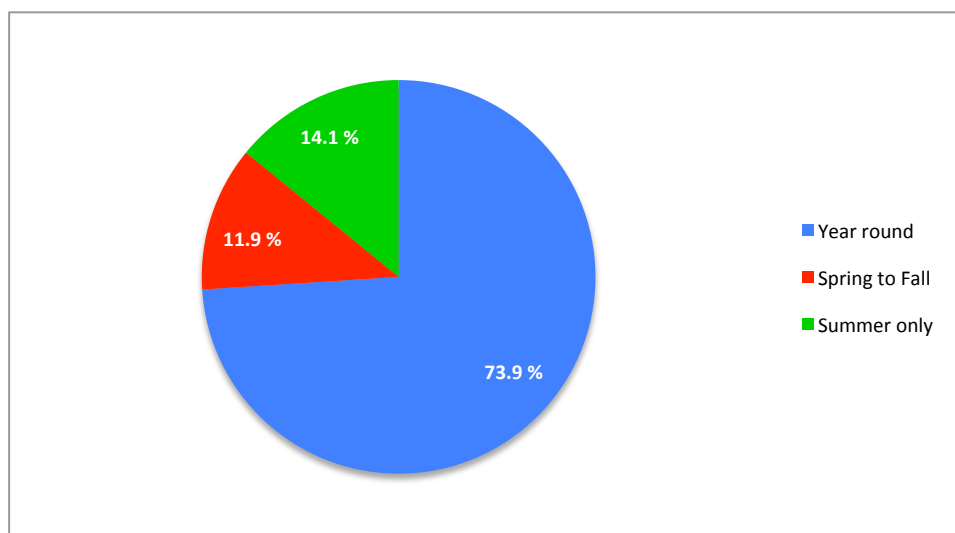


Figure 11 depicts the distribution of the sample of 92 public toilets based on their seasons of operation: 68 public toilets operate year around, 11 public toilets operate in the spring, summer and fall months; while 13 public toilets operate in the summer months only.

Figure 12: Public toilet hours of operation (n=92)

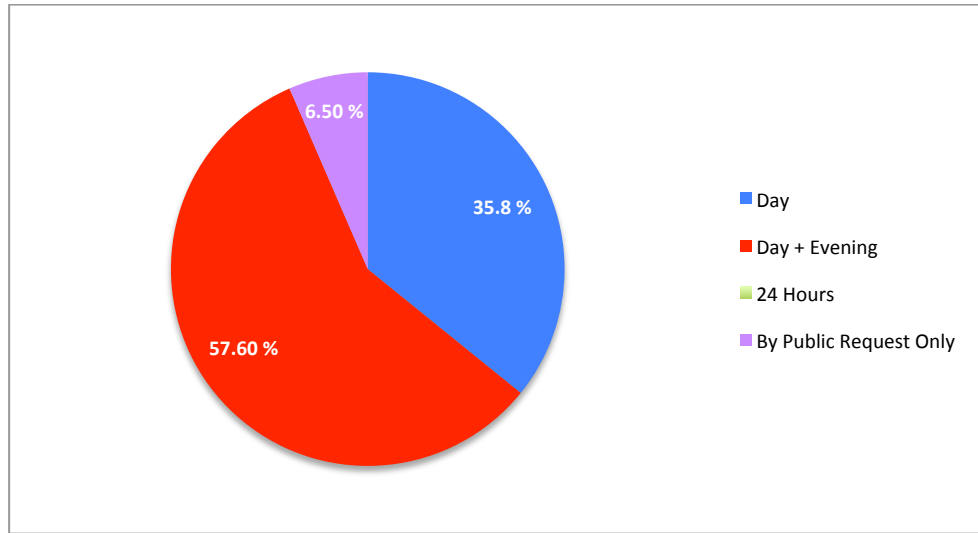


Figure 12 illustrates the distribution of the sample of 92 public toilets based on their hours of operation: 33 public toilets operate during the day (approximate hours between 9 am to 5 pm), 53 public toilets operate during the day and in the evening (approximate hours between 9 am to 9 pm); no public toilets operate 24 hours a day; while 6 public toilets are open to the public by request only.

Figure 13: Public toilet indicators outside facility (n=92)

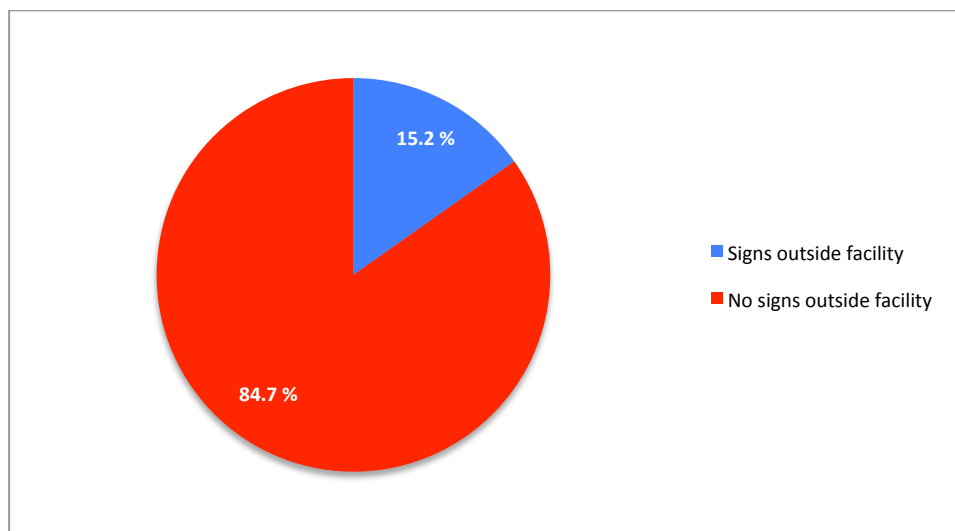


Figure 13 illustrates the distribution of the sample of 92 public toilets based on the signage provided outside the facility indicating the presence of a public toilet. Of the 92 toilets surveyed, 14 had signs outside to indicate a public toilet facility, while 78 did not.

Figure 14: Public toilet proximity to public transit stop (n=92)

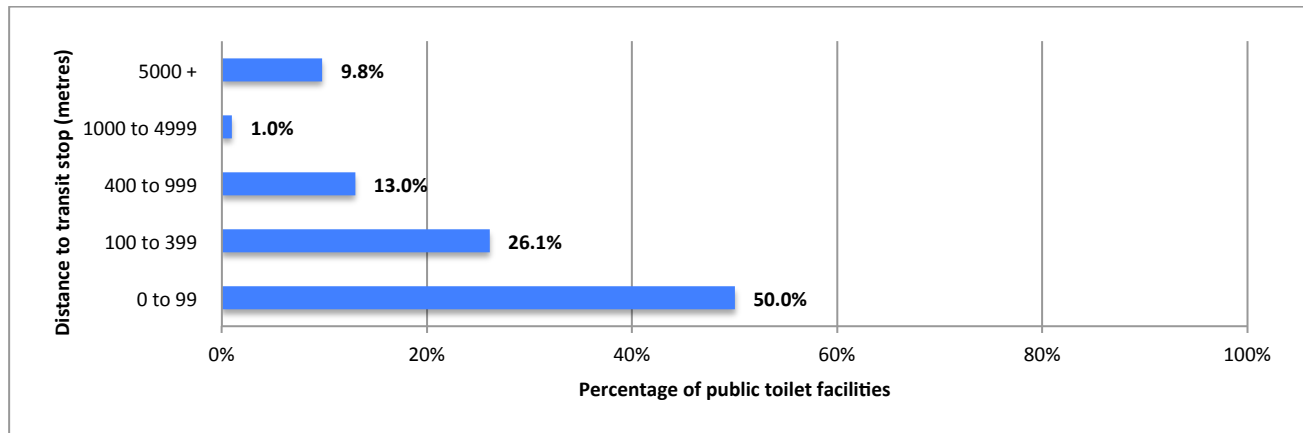


Figure 14 illustrates the proximity from each public toilet to the nearest public transit stop. Using OC Transpo public transit data in Google Maps, the distance between each public toilet facility and the nearest transit stop was plotted as falling within the following categories: 46 public toilets were between 0 and 99 metres of the nearest transit stop, 24 public toilets were between 100 and 399 metres of the nearest transit stop; 12 public toilets were between 400 and 999 metres of the nearest transit stop; 1 public toilet was between 1000 and 4999 metres of the nearest transit stop; and finally 9 public toilets were more than 5000 metres from the nearest transit stop.

Figure 15: Availability of public toilets located with 0 to 99 metres of transit stop (n=46)

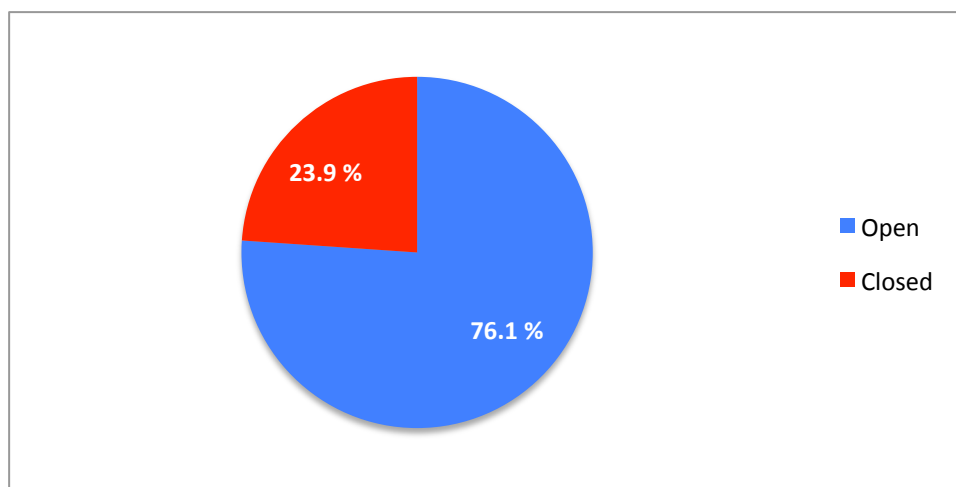


Figure 15 depicts the availability of public toilets located within 0 to 99 metres of the public transit stop. This proximity was selected for analysis, as it is the most reasonable walking distance from a



public transit stop to a public washroom. Any distance exceeding 99 metres could be too difficult for an elderly person, a person with a disability, or a caregiver with young children to access. Of the 46 public toilets between 0 and 99 metres of the nearest transit stop, 35 were available (open) while 11 were unavailable (closed).

### **Discussion**

In order to contextualize the *Flushing Inequality* research project, we will begin our discussion with an analysis of the limitations of the internal audits of public toilet facilities conducted by the City of Ottawa. We will then proceed to present a discussion of our third party assessments through the *Flushing Inequality* research project and assess the implications of these findings on social work practice.

On February 24, 2016, the City of Ottawa released data collected by an internal research team concerning the accessibility and availability criteria for 192 municipally-operated public toilets facilities (City of Ottawa, 2016). Upon review of the data collected, it must be noted that the City of Ottawa's availability criteria were more precise than the information that was collected by the *Flushing Inequality* team, as the researchers had privileged access to the exact seasonal dates and hourly times of operation. Of the 192 facilities surveyed by the City of Ottawa research team, 43% of the facilities were only available seasonally, typically between May and October, while 57% were classified as year round facilities. These data closely reflect the availability findings collected by the *Flushing Inequality* research team, whereby of 92 toilets surveyed, 44% were deemed unavailable due to seasonal closures while 56% were open for researchers to assess.

That is the extent of the similarities between the data sets collected by these two parallel public toilet assessment initiatives. The City of Ottawa website housing the data collected from the 192 toilets surveyed measured the accessibility of the facilities using a Likert scale, upon which surveyors indicated whether a facility was not accessible (0), minimally accessible (1), moderately accessible (2),

or displayed maximum accessibility (4). The City of Ottawa provided some qualifying information to explain the Likert scale used in their surveys, however as far as the *Flushing Inequality* research project is concerned, there should be no continuum along which to rank a public toilet's physical accessibility. If a public toilet is marked as accessible, it should be reasonably expected that the unit was designed to meet all building codes for physical accessibility. However, establishing a continuum for public toilet accessibility effectively suggests that spaces can be designed to be inaccessible to varying degrees. Of 192 public toilets surveyed by the City of Ottawa research team, 33 facilities were classified as having "maximum accessibility", whereas 53 facilities are marked as having "minimal accessibility", 35 toilets are "moderately accessible" and 71 are "not accessible". Only 17% of facilities surveyed by the City of Ottawa researchers are deemed "fully accessible" therefore potentially excluding people with various mobility or visual impairments from accessing the remaining 83% of public toilets. In order to expand upon the data collected by the City of Ottawa surveys, the *Flushing Inequality* research project uses descriptive statistical analysis to present a more thorough depiction and discussion of the quality, accessibility and availability of a sample of City of Ottawa public toilets.

### **Quality**

Throughout the public toilet visual assessments, the *Flushing Inequality* research team took inventory of the number of public toilets available in each women's washroom (refer to Figure 1). In doing so, we sought evidence of the "potty parity" phenomenon discussed in much of the literature related to gender and public toilet use (Anthony & Dufresne, 2007; Edwards & McKie, 1996). Among the 51 toilets available for assessment, 39% of the women's public toilets were equipped with more than 3 stalls, while 61% had fewer than 3 stalls. These findings confirm the literature concerning the "potty parity" which recommends that women's bathrooms be designed to accommodate more patrons simultaneously in order to avoid extensive line-ups that result from different toilet needs that

predispose women to require longer or more frequent toilet visits. That said, our survey did not reveal any public toilets having line-ups, however this data may be skewed based on the time of year that the study was conducted. Anecdotal evidence from the GottaGo! Campaign has raised concerns about public toilet line-ups at high traffic facilities in parks and beaches during the summer months. At these times, the “potty parity” becomes glaringly evident, thus exposing the importance of ensuring that women’s public toilets reflect the usage patterns and biological needs of women.

As an issue that straddles both the quality and accessibility of public toilets, the *Flushing Inequality* research project assessed a sample of 51 available public toilets for the presence of sanitary waste disposal units and biohazard disposal units (refer to Figure 2). Of the toilets assessed, 42 of the facilities had sanitary waste disposal units in the women’s bathroom. Conversely, only 2 public toilet facilities had biohazard waste disposal units. The discrepancy between these findings suggests that, while sanitary waste disposal units have become a standard feature in public toilets in order to ensure the safe disposal of feminine hygiene products, the same standard has not been established for the disposal of biohazard, biochemical or infectious waste, such as syringes used to inject medicinal and non-medicinal substances. Although service users in the City of Ottawa use syringes to self-administer medications such as insulin or medications to prevent blood clots, the installation of biohazard disposal units is often associated with illicit substance use. The common public discourse around biohazard disposal units often implies that the installation of such units, in conjunction with broader harm reduction policies such as clean needle exchange programs and safe injection sites, will increase the prevalence of drug use. These claims have been empirically disproven, thus establishing that harm reduction policies improve community safety and public health (Kerr et al, 2006; Wood et al., 2004). It is also important to make the distinction that the need to include biohazard disposal units is not merely a harm reduction activity to ensure that service users are not exposed to biomedical waste being disposed of inappropriately as litter or in common garbage cans, it is also a harm reduction measure to

ensure that City of Ottawa maintenance and cleaning staff are not exposed to needle stick injuries from improper disposal of needles, which can result in transmission of disease and illness. As such, the *Flushing Inequality* research exposes an important gap in the safety and quality of public toilets, and asserts that the installation of biohazard disposal units in public toilet facilities should become standard practice, akin to the provision of sanitary waste disposal units.

### **Accessibility**

As per our research instrument, the accessibility criteria sought to capture indicators of both physical and social accessibility. While measuring for physical accessibility involved ensuring that public toilet facilities met the minimum standard outlined by the Ontario Building Code, measuring social accessibility took into consideration the presence of gender neutral or family facilities to ensure safe spaces for transgender people, the need for adequately supervised and well-lit facilities, and the provision of bio-hazard disposal units to prevent injury or infection from potentially dangerous materials.

In terms of the physical accessibility of City of Ottawa public toilets, the data revealed that 47 of the 51 toilets surveyed housed a toilet that was indicated as wheelchair accessible, whether as a standalone unit or an enlarged stall in a public toilet containing multiple units. When the data for these 47 facilities deemed “wheelchair accessible” was disaggregated based on other accessibility criteria outlined in the Ontario Building Code, it became glaringly evident that a large number of the facilities deemed physically accessible presented a number of barriers for individuals with mobility issues (refer to Figure 3). While 100% of these units were equipped with automatic faucets or faucets with a lever handle for those with limited dexterity, only 82% had toilets that were the appropriate height (between 40 and 46 cm) for individuals in wheelchairs to easily transfer to and from their mobility device. Similarly, only 80% had grab bars in the wheelchair accessible stall that met the Ontario Building Code minimum length of 76 cm. In terms of door width, 89% of the wheelchair accessible units had a

stall door that met or exceeded the minimum width requirement of 85 cm. To enter the public toilet, 82% of the doors were equipped with an automatic push door opener or a push bar to allow people using mobility devices to easily enter or exit the unit. Most troublesome of the accessibility criteria was the fact that only 54% of the wheelchair accessible public toilet units met the minimum dimensions for manoeuvrability, 150 cm by 160 cm. In sum, only 17 (36%) of the wheelchair accessible toilets met all of the accessibility features outlined in the Ontario Building Code. As a result, over 63% of the toilets deemed to be “wheelchair accessible” presented at least one barrier to a wheelchair user. These findings echo the concerns articulated by one participant in the *Talking Toilets* study who remarked that it is “worse is when [toilets] give the impression they are accessible and they’re not” (Canham, 2014, p. 14). As such, our data reinforces Titchkosky’s (2011) findings concerning the gap between bathrooms designated to be “wheelchair accessible” and their actual functional accessibility for people using mobility devices.

Adding to the accessibility criteria that were assessed, the *Flushing Inequality* research project examined several aspects of public toilet design that address the needs of service users with visual impairments, including the need to have braille signage to demarcate public toilets; the need for hazard free floors that reduce the risk of tripping and slipping, such as rugs or water on floors; and the importance of level ground surrounding public toilets, either by ensuring clear floors or installing concrete slab around a comfort station (refer to Figure 4). In sum, 72.5% of toilets assessed present as barrier-free units for individuals with visual impairments, compared to only 36% toilets designated to be wheelchair accessible, a notable difference from the accessibility criteria in place at City of Ottawa public toilets to accommodate individuals with mobility impairments. When considering why this discrepancy might exist, two possible reasons can be suggested. Firstly, due to the season during which the visual public toilet assessments took place, very few comfort stations were available for assessment of their accessibility. Based on the anecdotal data presented in *Talking Toilets*, service users express

elevated concerns about the accessibility and quality of comfort stations located in parks and beaches. It is expected that these facilities may be less accessible for visually impaired service users than those public toilets located indoors in larger facilities, such as recreation complexes, community centres and libraries. This could be due to the fact that many comfort stations may be located in parks or at beaches where the terrain is more rugged, or where slipping hazards such as wet floors may be more prevalent. Further visual assessments of public toilets will need to be conducted at comfort stations during the summer months in order to determine if these assumptions are confirmed. A second proposition is that the accessibility criteria that were most often met in City of Ottawa public toilets were those items which were more basic adjustments, such as replacement of twist or knob sink faucet handles with automatic or lever devices, ensuring floors are clear, and the installation of braille signage. While these changes are not superficial to people with real accessibility needs, they are smaller investments of time and resources for the City of Ottawa to ensure the spaces meet the Ontario Building Code. Conversely, the accessibility criterion that was most lacking in many “accessible” public toilets was manoeuvrability for mobility devices. In order to ensure these facilities meet the Ontario Building Code, the public toilet might require extensive renovations and or architectural redesign. While it is understandable that these renovations do require more considerable time and resources to ensure public toilets, and City of Ottawa facilities more broadly, are brought up to meet the Ontario Building Code, the fact that these standards remain unmet since the passage of the Accessibility for Ontarians with Disabilities Act (AODA) in 2013 effectively perpetuates the marginalization of people with disabilities, by creating conditions that restrict their ability to fully participate in community life. The City of Ottawa has expressed their intention to make all “goods, services, facilities, accommodation, employment, buildings, structures and premises” accessible by the year 2025, in accordance with AODA requirements (City of Ottawa, 2008). While our visual assessments reveal that there is evidence of some efforts to do so, until all facilities have been brought up to a universal accessibility standard

outlined in the Ontario Building Code, people with disabilities continue to be tethered by the “bladder leash”, which restricts their movement and full integration throughout the city (Kitchin & Law, 2001, p. 289). As one participant in the *Talking Toilets* survey commented, having to constantly plan one’s activities around whether wheelchair accessible public toilet facilities will be available “makes me feel like I [...] shouldn’t expect as much from people and places” which “instils this idea that I don’t matter as much as able-bodied people” (Canham, 2014, p. 11).

As Canham concluded in the *Talking Toilets* study, each individual’s accessibility needs differ, thus planners must consider how to accommodate a range of accessibility needs into one universal design plan and integrate this design into all disabled toilets across the City. A good example of the City taking strides to implement a universal standard for the design of public toilets is the need to provide braille signage for the visually impaired and standard symbols on bathroom signs which can be distinguished by individuals with language barriers or cognitive impairments. Among all of the toilets, 80% had braille signage (refer to Figure 4), while 96% used standard symbols (refer to Figure 5). That said, the entire building design was not always created with the needs of visually impaired persons in mind, often having multiple doors, hallways or angled hallways which could be challenging to navigate with limited or no vision, or a mobility impairment. While the facilities visited were successful in their implementation of braille and standard symbol signage, it must also be acknowledged that the safety and mobility of people with visual impairments may be impeded when accessing public toilets located in public parks in the summer months, as many of these facilities are surrounded by uneven terrain, or have wet floors which could put people with limited mobility or vision at risk. Further research of comfort stations during their seasons of operation would be needed in order to determine the validity of these risks.

In terms of social accessibility, and the need to reduce intangible barriers that create intersecting concerns for safety and stigma of marginalized populations, the *Flushing Inequality* research team

assessed each public toilet for the presence of a gender neutral washroom (refer to Figure 6). As McKinnon (2014) outlines, sex-segregated public toilet facilities can often pose a risk to transgender persons, leading them to face violence or harassment when accessing gendered spaces, or avoid these spaces altogether in order to alleviate feelings of anxiety. It is evident that there is an overwhelming lack of gender neutral and family washroom facilities provided in the City of Ottawa, and that facilities are more likely to provide sex-segregated public toilets (refer to Figure 6). Although the literature (McKinnon, 2014; Cavanaugh, 2011) outlines this as a significant barrier for the physical and psychological wellbeing of queer and transgender people, the lack of gender neutral facilities also poses as a barrier for caregivers who are assisting individuals to use the bathroom, be this a father with a daughter, a mother with a son, or a caregiver with an elderly person who requires assistance. The provision of gender neutral and family public toilets reduces intangible barriers to social accessibility that serve to impede the ability of families, caregivers and their relatives or clients, and transgender people from partaking in community life without risking their safety, facing stigma or harassment for doing so.

### **Availability**

When asked to comment on the current status of public toilet provision in the City of Ottawa for the *Talking Toilets* study, 12 out of 15 service users surveyed by Canham responded by saying that the City of Ottawa does not have enough toilets (2014, p. 7). Based on Sarah Good's mapping of current public toilet infrastructure, there are currently 419 public toilets in the City of Ottawa between comfort stations, libraries and museums, athletic and recreation facilities, community centres and other City of Ottawa administered properties. This number suggests that there is a wealth of existing public toilet infrastructure in the City, which contradicts the perception held by the participants in the *Talking Toilets* study. However, based on the data collected by the *Flushing Inequality* research team, 41 of 92 public toilets, or approximately 45% of the facilities surveyed for this research, were unavailable (refer



to Figure 7). This suggests that, while sufficient public toilet infrastructure does exist in the City of Ottawa, the seasonal and hourly closures of these locations restrict the public toilet's availability, thus rendering many facilities unusable (refer to Figure 11, Figure 12). Our conclusions, based on the availability data collected in the *Flushing Inequality* research, supports Canham's finding that 86% of service users polled responded that their toilet needs remain unmet by the City of Ottawa, despite the amount of infrastructure currently in place. As was confirmed by our research findings, participants in the *Talking Toilets* survey also expressed concern that the hours for access to public toilets were limited, with no 24 hour toilets and only 57% of public toilets surveyed being open in both the day and evening (refer to Figure 12). Based on the researchers' observations, many of the facilities that had extended daytime and evening hours which were also available year round were athletics and recreation complexes, some of which are located in downtown core, but many of which can be found in the suburban areas. It must be noted that athletics and recreation facilities are often revenue generating properties for the City of Ottawa, due to the rental of ice pads, gymnasiums or swimming pools for organized sports and activities. As such, there is a profit-generating motivation to keep these facilities open as long as possible during the day and throughout the year, as doing so enables the City to generate more income from their operations. As such, these facilities are often the most readily available public toilets in the City, both in terms of their hours and seasons of operation. Much as the participants in Canham's survey conclude, toilets in comfort stations were almost universally inaccessible during the data collection period. Likewise, many library and museum facilities had limited hours of operation, though they were open year-round, while many community centres outside of the City of Ottawa's urban core, in suburban and rural regions, were unavailable to the public unless the facility was rented by a community group. As such, 45% of the current infrastructure in the City of Ottawa was rendered unavailable to the public during the data collection period, thus confirming the hypothesis that the existing public toilet infrastructure in the City of Ottawa is not meeting the needs of

service users (refer to Figure 7).

Moreover, facilities such as museums, libraries, community centres, administrative buildings and athletics facilities that house public toilets that are available for use in the City of Ottawa are not clearly marked as public toilet facilities outside of the building, thus they can be easily overlooked by service users. When toilets are unavailable for public use or are not equipped with adequate signage, service users are forced to adapt to the conditions by modifying their behaviour accordingly. In many cases, the literature concludes that individuals facing urinary or fecal incontinence due to age or chronic health concerns will respond to a lack of easily identifiable and available public toilets by adjusting their social behaviour to avoid participation in community activities, limiting their excursions to short trips, or even remaining entirely housebound in order to avoid facing the humiliation of an “accident” in public. As one service user interviewed for *Talking Toilets* recounted, “When I was really sick I just refused to leave the house in general, because I had no control, and I was horrified by the thought of [...] not being able to get to the facilities” (Canham, 2014, p. 10). As result of public toilet unavailability, these forced lifestyle changes restrict the ability of the elderly and people with chronic health conditions to participate fully in their communities, thus contributing to the ongoing marginalization of vulnerable populations, by increasing their risk of social isolation, and exacerbating feelings of anxiety and distress.

Another strategy that is used by individuals struggling to locate available public toilet facilities is to seek relief in private establishments. In fact, seeking access to toilets in private establishments arose as a common theme throughout the *Talking Toilets* interviews, so much so that Canham (2014) stated: “in Ottawa, the capital city of one of the most prosperous countries in the world, citizens put more faith in the reliability of restrooms in an iconic Canadian donut and coffee chain than they do in government provision” (p. 16). While the request to relieve oneself in a private establishment may be granted to some, private businesses reserve the right to designate their facilities for employee use or paying

customer access. Moreover, individuals who present as homeless are often barred or viewed with great suspicion when seeking to use toilets in private establishments. While those presenting as groomed and well-kept often have the ability to access the same washroom facilities in private establishments relatively undetected or unquestioned, individuals who appear homeless are often denied access to private toilets as their visible presentation is not subject to the same level of stigmatization. When private toilets are rendered inaccessible and public toilets are unavailable, public elimination in streets and alleyways is often the last resort for those who are experiencing homelessness. Being forced to relieve oneself in public is dehumanizing and undermines the dignity of those already experiencing incredible social and economic vulnerability. Moreover, the punishment of public defecation by law contributes to the ongoing criminalization of poverty, which does little to consider the way in which the choices of homeless populations are constrained by their social and economic circumstances. These findings confirm the theme of regulation and control of the homeless population's access to public facilities (Amster, 2003; Davis, 1990).

Another observation that was noted in the research was the need for facilities to be located in close proximity to public transit stops or stations. According to *Talking Toilets*, 100% of participants interviewed indicated that they would be more likely to use public transit to commute if there were more public toilets available in the City of Ottawa (Canham, 2014, p. 17). One service user commented on how the installation of public toilets near transit facilities serves to benefit all members of the community, saying that it is “logical that you might want to put in facilities for users of the transit system and for people who are just regular pedestrians” (Canham, 2014, p. 18). According to the visual toilet assessments, approximately 50% of current public toilet were within 0 and 99 metres of a transit stop, while 26% were within 100 to 399 metres. Few toilets were between 400 metres and 4999 metres, however approximately 10% of toilets were more than 5 kilometres from a transit stop (refer to Figure 14). When the data concerning toilet availability and proximity to transit stops were compared, it

became clear that of the 92 toilets surveyed, among the 46 toilets that were located between 0 and 99 metres of a public transit stop, only 35 of these public toilets were open for access, thus revealing the need to ensure public transit facilities are located within a reasonable distance from public toilet facilities (refer to Figure 15).

Although these findings reveal a significant issue concerning availability of existing public toilets in some rural communities, it also speaks to a concern about lack of public transit in these areas. Although this is outside the scope of this research, it is recommended that further research be conducted on the proximity of public toilets to public transit stops and stations, rather than by assessing the distance from the public toilet to the nearest transit stop, but by calculating the nearest public toilet(s) to each transit stop.

### **Contribution to Current Body of Knowledge**

Although the GottaGo! Campaign has conducted qualitative research on public toilet needs in the City of Ottawa, our research is the first to provide a quantitative visual assessment of the availability, accessibility, and quality of public toilets in the City of Ottawa. While there is current literature that exists to suggest that public toilets often fail to meet the needs of people with disabilities, our study was the first to suggest that the primary issue in the City of Ottawa is the lack of available public toilets, though it remains unclear if these results are specific to Ottawa based on seasonal patterns of public toilet closure. While this research has not been conducted in other cities, the visual public toilet assessment tool can be universally applied and may be used to assess the availability, accessibility and quality of toilets in other cities in Ontario, or updated to reflect building codes in other provinces. The *Flushing Inequality* research suggests that public toilet availability presents as a critical barrier to the full participation of all citizens in community life in the City of Ottawa. As such, our research challenges the conclusion presented by the *Talking Toilets* research project which asserts that the construction of more public toilet facilities is necessary, instead suggesting that the current

infrastructure can be better used to meet the needs of people in the City of Ottawa. Moreover, our research is the first to suggest that biohazard waste disposal units should be considered an essential feature in the design of public toilets, so as to ensure the public health and safety of all service users and service providers in the City of Ottawa.

### **Limitations**

During the data collection and analysis, several limitations arose that required mitigation by the research team. While some of these limitations were the result of researcher error and were accounted for in the data analysis, others were the result of extraneous circumstances that were outside the control of the research team, although the implications of these limitations will be explored.

Firstly, the sample size of 100 toilets was created to be a proportionally representative sample of the population of 419 public toilets in the City of Ottawa, based on facility type and location. The sample was reviewed by a City of Ottawa official who indicated some facilities on the list that were closed indefinitely or temporarily for renovations. Prior to the data collection, these toilets were then removed from the sample and replaced with toilets that met the same criteria based on facility type and location. Upon beginning data collection, it became evident to the research team that additional facilities that remained in the research sample were also closed indefinitely, had been demolished, or were duplicates recorded at the same location. These toilets were then removed from the research sample. During the assessment, another toilet was revealed to be a portable toilet, thus it did not fit the definition of “public toilet” outlined by the research project, which stated that the toilet must be a fixed and permanent facility. As a result, 8 public toilet facilities were removed from the research sample, bringing the total of the toilets assessed from 100 to 92 toilets. Although efforts were made to mitigate the impacts of the changes by having the sample reviewed in advance, the elimination of these public toilets from the sample had the potential to skew the proportionally representative nature of the sample, as the number of toilets surveyed did not necessarily reflect the precise representation of facilities

based on the types and locations of public toilets. Although this is unlikely to skew the data overall, less emphasis was placed on identifying relationships between facility type or facility location and the presence or absence of certain criteria, as there was a risk that conclusions may not be accurate based on this limitation.

In terms of the design and administration of the research instrument, some limitations arose that were mitigated by the research team or presented opportunities for future research. Firstly, a question that was posed in the original research tool asked the surveyor to identify whether the sink height in the public toilet met the Ontario Building Code standard of 68 centimetres from the floor to the counter. This measurement did not specify whether to measure from the floor to the bottom of the counter in order to fit a wheelchair comfortably underneath or to the top of the counter for a wheelchair user to reach the sink. For this reason, the question was interpreted differently by members of the research team during the surveys, as a clear method of assessment was not determined during the initial surveys conducted together as a team. As a result, the question was eliminated from the analysis as the data risked being inconsistent. A second limitation that arose in the design of the research instrument was the result of the limited scope of the study. For the purposes of the *Flushing Inequality* research project, the research team designed an assessment tool to evaluate the accessibility standard of public toilets, not the surrounding facility. Though some consideration of accessibility features in the surrounding facility was incorporated into the tool (i.e. questions about ramps and stairs), there was not enough attention paid to accessibility features that could impair service users from accessing the toilet within the building. For example, while the research team carefully measured the door width of the bathroom entrance and the stalls, the widths of other entrances in the building were not assessed to determine if a wheelchair user could gain access to the facility. Moreover, until several facilities had been assessed, the research team did not account for public toilets located in spaces with winding hallways. Future research is advised to assess whether the public toilet is accessed by means of

winding hallways which may be difficult to manoeuvre in a wheelchair or hazardous to people with visual impairments.

The final two limitations that had the potential to impact the conclusions drawn by the research were largely outside of the control of the research team: the time of year the survey and the gender composition of the research team. Based on the nature of the research being conducted for the completion of a graduate social work course that took place between September and March, the data collection period fell during the months of January and February. Consequently, a large proportion of public toilets in the City of Ottawa were seasonally closed, despite our best efforts to gain access to these facilities with the support of the City. As a result, some of the assessment data collected is skewed based on the time of year of the surveys. For example, service users have expressed concern over the quality and accessibility of comfort stations in parks and at beaches, which are high traffic locations in the spring and summer (Canham, 2014, p. 8). This research was unable to fully capture the accessibility and quality of these locations, as their availability was restricted, with only one comfort station being open for assessment. That said, the biological need to relieve oneself is not seasonally restricted, therefore the inability to access such a large percentage of public toilet facilities during the winter months suggests a systemic issue in the City of Ottawa concerning the limited seasonal availability of toilets. The seasonal limitation of this research by no means negates the importance of having public toilets available to service users year round.

The final limitation faced by the research team was the fact that, until midway through data collection, the research team was comprised solely of female researchers. This resulted in the majority of the data focusing on the quality and accessibility of women's toilets. Questions that required assessment of the men's toilet required the team to rely upon the account of a staff member, such as for evaluating the presence of a change table in the men's washroom. As such, the data may be skewed to represent the conditions in the gender neutral and women's public toilets in the City of Ottawa, more

than the men's public toilets.

### **Recommendations for Future Research**

Throughout data collection, the research team met on a weekly basis to reflect on the survey results and to discuss whether the tool was accurately capturing availability, accessibility and quality criteria in City of Ottawa public toilets. These discussions led to reflections upon the need for further research to be conducted in three areas: 1) conducting public toilet research in the summer months that more accurately captures the quality and accessibility of public toilets facilities that are seasonally unavailable; 2) addressing the discrepancy between public toilets that meet building codes versus public toilets that are functionally accessible; and 3) conducting a qualitative assessment based on cultural- and identity-based needs for public toilets.

Firstly, as mentioned earlier, the *Flushing Inequality* team recognizes the need to address some of the limitations of this study in further research, most specifically as it relates to the availability of public toilets during the summer months. Based on the anecdotal data presented in *Talking Toilets*, service users are concerned about the accessibility and quality of comfort stations located in parks and beaches. Further visual assessments of public toilets will need to be conducted at comfort stations during the summer months in order to determine if there are different findings concerning the accessibility and quality of these facilities.

Secondly, throughout the data collection, there were concerns raised about the interpretation of public toilet spaces by able-bodied researchers. To mitigate this, the research tool was designed in order to assess whether City of Ottawa public toilets met Ontario Building Code standards. However, in doing so, the survey failed to capture the true functional accessibility of the public toilets as experienced by users with disabilities, thus erroneously equating the standards in the Ontario Building Code with what would be considered functionally accessible by a person with a disability, a limitation discussed in Thapar et al. (2004). Future research on the functional accessibility of City of Ottawa



public toilets with a research tool designed in collaboration with an advisory committee that is well-versed in accessibility either through research or lived experience, would be useful so as to unpack the discrepancy between “building code” accessibility and “functional” accessibility, and how to design public spaces to be fully accessible with sensory cues and devices that can assist people to locate and access public toilets.

Lastly, although a review of the literature did suggest cultural differences in bathroom use, such as the importance of running water or the request for ablution facilities in public toilets, there was no question included in the assessment tool to capture the specific needs of newcomer populations when accessing public toilets. Additionally, the research team found it challenging to identify a quantitative question or series of questions to accurately capture these needs during a visual public toilet assessment, beyond simply looking for multilingual signage. Within this research, there is also a need to explore “culture” beyond the confines of ethnicity or religion, but to interrogate other identity-based cultures such as queer and transgender culture, which may reveal other specific public toilet needs. For this reason, future qualitative research about the needs of various cultural groups could prove helpful.

### **Implications for Social Work Practice**

Although this research may not appear to be directly related to social work practice, the conclusions drawn from our research suggest that a comprehensive examination of public toilet infrastructure in the City of Ottawa has implications for social work practice at the micro, mezzo and macro levels, particularly as it relates to structural social work which seeks to situate personal problems in political structures. On the micro level, this research reinforces the need for social workers to recognize the implications that limited access to public toilets has on clients, and how these patterns of oppression impact marginalized populations. For example, the elderly and people with disabilities face heightened risk of social isolation when they are unable to meet their toileting needs, whereas queer and transgender populations risk stigma, harassment, threats and violence when forced to use

sex-segregated washrooms. Homeless populations may be forced to relieve themselves in public spaces, thus compromising their dignity and placing them at risk of criminalization when they are unable to access public toilets. Awareness of these accessibility challenges enables social workers to be more empathetic to their clients' most personal physiological needs, and the ways in which the public toilets can serve to constrain client choice. Having this awareness allows social workers to operate more effectively at the mezzo level, as they are able to make connections between the oppressions that different populations faced as rooted in a shared problem. Once this collective consciousness has been raised, both among service users and social workers, it becomes possible to provide more effective advocacy at the macro level. Currently, at the macro level, advocacy around public toilet provision and accessibility is siloed, with various groups undertaking advocacy activities to lobby governments and institutions for more accessible public toilets. While the LGBTQ community is already mobilized around the need for gender neutral washrooms, disability advocates are providing recommendations for how spaces can be designed to meet the needs of people with varying abilities. The GottaGo! Campaign has emerged as a centralized body where these advocates can unite, collaborate, share knowledge and strategies, and lobby more effectively for public toilets that address the diverse needs of populations within the City of Ottawa. While individuals with physical disabilities and chronic health conditions are represented on the GottaGo! Campaign's core team, we would recommend creating space for representation from the LGBTQ community in order to mutually support and amplify the activism taking place around public toilet accessibility. Moreover, as structural social work involves the collectivization of client concerns, increased awareness of this pervasive social issue can be used to mobilize clients to become involved in coalitions like the GottaGo! Campaign that are seeking to make public spaces more accessible and inclusive to the needs of service users.

### **Recommendations for the City of Ottawa**

This study was informed by anti-oppressive principles, which seeks to use research to challenge

oppression and advance social justice by working in collaboration with community members. As such, our recommendations take into consideration that certain suggestions for improvements may be more palatable to the City, however as social workers with a social justice mandate, it is our responsibility to advocate that everyone, regardless of age, ability, health condition, gender, or class, deserves to use the bathroom in a way that respects their dignity. This entails ensuring that public toilets are not spaces reserved exclusively for those deemed to be “deserving”. As such, we believe that requesting that the bathrooms that already exist be equipped with outdoor signage and open to all of the public is a reasonable and socially responsible recommendation. Additionally, our position as third-party researchers outside the City of Ottawa presents us with the opportunity to advocate for the best possible solution, not merely the easiest.

After conducting a literature review of policies and practices that have been implemented in other Canadian and international cities to expand public toilet availability and improve public toilet accessibility, we propose the following recommendations to the City of Ottawa. Firstly, it was noted that family and gender neutral facilities were often locked to the public, when sex-segregated bathrooms were not, thus requiring assistance or permission from the City of Ottawa to unlock or provide a key. These staff members effectively pose as gatekeepers, particularly for marginalized populations such as transgender individuals, homeless populations, or people with invisible disabilities or health conditions. By needing to request permission to use the public toilet, these groups experience stigma and may feel the need to disclose sensitive information about their toileting needs in order to gain access, ultimately compromising their dignity. Another accessibility feature that can be addressed is the need for input from people with disabilities into the design of public spaces, particularly public toilets. As one participant in *Talking Toilets* comments, “able-bodied people are the ones that build the bathrooms” (Canham, 2014, p. 14). As such, having an advisory committee comprised of individuals with different abilities to provide recommendations and suggestions can help the City of Ottawa to

ensure new facility design and renovations of existing facilities can be designed to be more inclusive and functionally accessible for people with a range of abilities. Thirdly, a major issue in the City of Ottawa is a lack of clear signage outside of City properties to indicate the presence of a public toilet (refer to Figure 13). As a result, many residents in the City of Ottawa rely heavily on private establishments to meet their toileting needs, which is problematic when 60% of *Talking Toilets* participants could recount one instance of being refused access (Canham, 2014, p. 7). In conjunction with efforts to map public toilet facilities, affixing clear signage with standard symbols outside of City of Ottawa libraries, athletics and recreation facilities, museums and other administrative buildings can alert service users to the presence of public toilets.

Moreover, the City of Ottawa has released a sustainability plan in which they outline their strategy to become a more environmentally-friendly municipality. According to survey data collected from 15 local respondents, all of those interviewed indicated that they would be more likely to use public transit, cycle or walk to commute if there were more public toilets in the City of Ottawa (Canham, 2014, p. 17). A strong public toilet strategy would complement the current sustainability plan by shifting service users away from driving as a means of commute toward more sustainable methods of travel. A concrete aspect of this would be to ensure that facilities near transit stops are made available to the public, and that forthcoming transit stations be equipped with accessible and free public toilets (Figure 15).

A recommendation that we reluctantly propose, with the stipulation that it is merely a short-term resolution, rather than a long-term solution, is the design of a universal swipe pass or key that can be distributed to eligible residents in the City of Ottawa. Applicants who present with health conditions or physical needs that necessitate urgent access to public toilets can apply to the City for a swipe card which can be activated for certain or all facilities. City of Ottawa facilities that are equipped with swipe card capacity must be adequately labelled and maps of the facilities be provided to eligible users.

The shortcoming of this recommendation is that the idea is inherently exclusionary, as the application process effectively creates more “gatekeepers” to public toilets, as marginalized populations are forced to disclose sensitive information about their health conditions in order to gain access to the swipe card program. As such, other populations who are deemed as being “undeserving” of public toilet access, but who face similar barriers locating and accessing public toilets, such as homeless or transgender individuals, are then disqualified from the program, further broadening gaps to social accessibility.

### **Conclusion**

In their anthology about the politics of toilets, Molotch & Norén (2010) explain that an assessment of public toilet infrastructure “opens up larger issues of what people think they need to protect, how they go about securing that protection, and who succeeds and who does not [...] how neighborhoods, cities, cultures and nations provide for some and not for others [...] put bluntly, peeing is political” (p. 1). The political nature of an inherently private act has been unmasked through the *Flushing Inequality* research project. This research explores the way in which public toilet provision in the City of Ottawa serves to reinforce oppressions that individuals face, further marginalizing populations such as the elderly, people with disabilities, people with chronic health conditions, women, transgender people, and people who are experiencing homelessness. In conclusion, the findings of this research study confirm the stated hypothesis that City of Ottawa public toilets present as overall quality facilities, with most public toilets meeting almost all quality criteria. Moreover, nearly all City of Ottawa public toilets surveyed were equipped with at least one unit or stall designated as wheelchair accessible, however further investigation revealed that a significant proportion of City of Ottawa public toilets present at least one barrier to full access for service users with disabilities. Lastly, the findings revealed that almost half of the public toilets surveyed were closed, rendering them unavailable for full assessment by the research team. This confirms the final aspect of the hypothesis which predicted that the restricted availability of the public toilet facilities prevents the current public toilet infrastructure in

the City of Ottawa from meeting the needs of all service users.

While examining cultural artefacts of the Roman Empire, anthropologist Dr. Mary Beard remarked, “If you want to understand a culture, look to its lavatories” (Beard, 2012, 24m38s). As a city that is recognized as a year-round tourist destination, boasting a population in excess of one million people, it is critical to consider how the current state of public toilets in the City of Ottawa reflects the willingness of our culture to meet the needs of the most marginalized populations in our community. We pride ourselves on being an inclusive and accessible city, yet our public toilets appear to be telling a different story.

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## **Appendices**

Appendix A: Annotated Bibliography

Appendix B: Visual Public Toilet Assessment Tool

Appendix C: Code Book

Appendix D: Coded Data

Appendix E: Frequency Distributions

## Appendix A

### Annotated Bibliography

Cavanagh, S. L. (2010). *Queering bathrooms: Gender, sexuality, and the hygienic imagination*. Toronto, ON: University of Toronto Press.

Sheila Cavanagh is an associate professor in Sociology at York University where she also coordinates Sexuality Studies. Her scholarship addresses gender studies, trans studies, queer theory, and critical studies in sexuality. Cavanagh's award winning book, "Queering Bathrooms: Gender, sexuality, and the hygienic imagination" is ground-breaking in its field. It addresses how public toilets condition the ideas of gender and sexuality by demarcating the masculine and feminine binary. Through 100 interviews with GLBT (gay, lesbian, bisexual and trans\*) and/or intersex peoples from across North America, the book exposes the dangers of public washrooms to queer people while delving into the ways that queer and trans communities challenge the heteronormative makeup of public toilets. The literature of this book proved to be very useful to our research as it helped determine the social accessibility criteria of public toilet spaces.

Edwards, J., & McKie, L. (1996). Women's public toilets: A serious issue for the body politic. *European Journal of Women's Studies* 3(3): 215-30.

Edwards and McKie were interested in addressing the issue of longer queues for women's toilets than men's. Despite the commonly held belief that women spend longer periods of time in front of the mirror, the researchers knew that the queue was never for the mirror, but rather for the stalls. Through addressing the biological and social differences between the toilet needs of men and women, Edwards and McKie demonstrate the unique needs women have for toilets and the importance of addressing those needs in urban planning. These findings were relevant in creating our assessment tool to capture the ratio of male to female toilet stalls. They are also relevant for our future effort to advocate for more public washrooms to address the greater need of women.

Greed, C. (2003). *Inclusive urban design: Public toilets*. New York, NY: Architectural Press.

Clara Greed's text is perhaps the most comprehensive analysis of public toilet needs, policy, and design. An urban planner by trade, this text acknowledges that public toilets are central to the infrastructure of a vibrant, sustainable city, and as such their construction should be critical to municipal-level policies and urban planning. Greed assesses the various structural inequalities that citizens face when seeking to access washroom facilities, from physical accessibility for people with disabilities to insufficient attention to the unique biological needs of women. The text also attends to the limitations that service providers, both public and private, face when designing and constructing public toilet facilities. Greed's text is the only piece of literature to provide insight into the specific needs of various cultural and religious groups, as it pertains to the design and use of toilet facilities, a topic that is of significance to the design of washroom facilities in a multicultural city. While Greed's research is based largely on urban design in the United Kingdom, the principles and recommendations are transferable to a Canadian context, particularly given the diversity of service users in the City of Ottawa.

Kitchin, R., & Law, R. (2001). The socio-spatial construction of (in)accessible public toilets. *Urban Studies*, 38(2), 287-298.

Kitchin and Law applied the lens of social justice and citizenship to investigate whether the rights of disabled people to access public spaces in Ireland was limited by their access to adapted public toilets. Their work enriched our research with the notion of "the bladder leash", which refers to a person's ability to participate being limited by their need to return to a place where a toilet is accessible. Their research findings indicate a lack of provision of adequately designed accessible public toilets in Ireland which limits the full citizenship and participation of people with disabilities. This frames the importance of validating the accessibility of public toilets as a means of insuring minimal structural barriers in the social inclusion of people with disabilities.

Molotch, H., & Norén, L. (2010). *Toilet: Public restrooms and the politics of sharing*. New York, NY: NYU Press.

Molotch and Norén, sociologists based at New York University, present a diverse collection of academic literature by sociologists, urban design professionals and historians on the policies and practices surrounding the politics of public toilet use. Highlighting the highly sensitive nature of performing an intrinsically private act in a public space, this text sheds light on the way in which the physical design of public toilets, from the gendering of washrooms, to door widths and number of stalls, reflect social norms and attitudes toward different abilities, genders, classes and cultures. The critical lens provided by this sociological examination of public toilet use allows for a thorough structural analysis of the potential implications this has on marginalized populations.

Plaskow, J. (2008). Embodiment, elimination, and the role of toilets in struggles for social justice. *CrossCurrents*, 58(1), 51-64.

Judith Plaskow's interests focus on contemporary religious thought with a specialization in feminist theology. In this essay, Plaskow outlines the two interconnected strands of a new project on embodiment, elimination, and the role of toilets in the struggle for social justice. The first strand relates to how access to public toilets affects public participation and citizenship and maps power relations in society. The second strand addresses the lack of reflection on elimination as a normal aspect of human embodiment and the need for a feminist perspective to reclaim elimination as sexuality once had to be reclaimed. The relevance of this article is in its ability to frame the issue of toilets as an integral part, even if implicit, of all social justice movements aimed at breaking structural inequalities.

Siu, K. W. M., & Wong, M. M. Y. (2013). Promotion of a healthy public living environment: Participatory design of public toilets with visually impaired persons. *Public Health*, 127(7), 629-636.

Kin Wai Michael Siu is a professor and lab leader in Hong Kong Polytechnic University School of Design. His research on toilet accessibility for visually impaired persons (VIPs) is unique and distinguished from the greater body of toilet accessibility research that focuses on the needs of wheelchair users. Using a participatory approach, M. Siu and Wong conducted in-depth qualitative interviews as well as field visits, models and a full-scale toilet environment for VIPs to simulate a real toilet use experience. This paper aims to shift the focus towards the experience of the VIP user instead of the designer. It thus highlights the need for cleanliness because VIPs use their hands to navigate, as well as the need for other navigation tools, such as tactile guide path. VIPs also require consistency in toilet design, such as the location of the soap and hand driers, to facilitate navigation. In our own research, this informs us of the unique needs of VIPs and how they can be addressed in both urban planning and toilet design.

Solomon, R. C. (2013). *A comparative policy analysis of public toilet provision initiatives in North American cities: recommendations for the creation of a public toilet strategy in Toronto*. Toronto, ON: Cities Centre, University of Toronto.

Solomon's report offers a comparative analysis of public toilet provision in seven cities in North America, using the findings from a review of policies and qualitative data to explore the politics and planning of public toilet provision. This report addresses questions about who uses public toilet facilities, their economic and environmental significance, where they are located, and how their use should be regulated. Based on her research, Solomon concludes that, while there is a lack of public toilet infrastructure, existing public toilet facilities are often inaccessible due to closures that result from rising operating costs, and vandalism or misuse. As such, a tension results when planning for public toilet installation, as city officials are forced to consider that, while readily available and accessible public toilets are desirable, they may face backlash from community members who fear that such facilities could attract undesirable activity, such as crime or

substance use. Solomon concludes that developing a public toilet strategy requires engaging in a collaborative planning process with a variety of stakeholders in order to ensure that facilities meet the needs of a range of populations. The document concludes by presenting a series of recommendations for the development of a public toilet network in the city of Toronto.

Titchkosky, T. (2011). *The question of access: Disability, space, meaning*. Toronto, ON: University of Toronto Press.

Conceptually framed by the field of disability studies, Titchkosky's book discusses disability related issues by examining socio-spatial constitutions of disabled subjects and issues of access. Unlike the popular discourse that defines disability in terms of limits, Titchkosky reflects on social relations and how an appreciation of difference can help us imagine new ways of creating a shared lived experience. The disability issues of access are contextually discussed in university settings, such as the University of Toronto, but offer an insight on ideas and topics that can be examined in other settings, such as the city of Ottawa public toilets. With regard to toilets, Titchkosky alerts us, the able bodied, of an existent discrepancy between the labelling of accessible toilets and their actual level of accessibility. This helped shape the rigour of our methodology as we set out to take precise measurements of toilet stall door width and sink heights instead of relying on the signage to deem a toilet as accessible.

van de Sande, A., & Schwartz, K. (2011). *Research for social justice: A community-based approach*. Halifax, NS: Fernwood Publishing.

Adje van de Sande and Karen Schwartz provide a concise but thorough examination of community-based social work research. This text presents the pillars of the structural and anti-oppressive approach to research, which comprise the theoretical framework upon which this research project is based. Van de Sande and Schwartz emphasize that social work is not a neutral or objective profession, thus the design of our research project should also reflect a commitment to advancing social justice. Additionally, this text provides a guide to the application of participatory action research (PAR) as it relates to social work research, a practice that will be integrated into our research methodology.

Wilkinson, T.J., Henschke, P.J., & Handscombe, K. (1995). How should toilets be labeled for people with dementia? *Australian Journal on Ageing*, 13(4).

In this study, an Australian team of researchers set out the clear objective of determining how people with dementia need toilets to be labeled. They took into consideration the challenges of people with dementia to differentiate between generic looking doors in hospitals and long term care facilities, which can create situational incontinence. They also questioned the suitability of the current international symbols which are not recognizable by an elderly generation with memories from another era. Based on their survey results, the researchers recommend the use of the word "Toilet" accompanied by a symbol more representative of a toilet. This is relevant to our study as it informs us of the need for clear labelling of washrooms thus making them accessible to even the most vulnerable people, including the elderly and particularly those with dementia.

**Appendix B**

**Visual Public Toilet Assessment Tool**

**VISUAL PUBLIC TOILET ASSESSMENT TOOL**

**Student Surveyor:** \_\_\_\_\_ **Date/Time of Survey:** \_\_\_\_\_

**Washroom Location – Facility Name and Address:**

\_\_\_\_\_

**1) Toilet Availability**

Washroom Location:

Central \_\_\_\_\_ South \_\_\_\_\_ West \_\_\_\_\_ East \_\_\_\_\_

Washroom Location – Facility:

Comfort Station \_\_\_\_\_ Athletics and Recreation Facility \_\_\_\_\_  
 Community Centre \_\_\_\_\_ Library/Museum \_\_\_\_\_ Other \_\_\_\_\_

Hours of Operation:

Day (i.e. 9 am to 5 pm) \_\_\_\_\_ Day + Evening (i.e. 9 am to 9 pm) \_\_\_\_\_ 24 Hours \_\_\_\_\_

Open to public by request only \_\_\_\_\_

Seasons of Operation:

Year Round \_\_\_\_\_ Spring/Summer/Fall \_\_\_\_\_ Summer only \_\_\_\_\_

Distance to the Closest Public Transit Stop:

0 to 99 metres \_\_\_\_\_ 100 to 399 metres \_\_\_\_\_ 400 to 999 metres \_\_\_\_\_  
 1000 metres km to 4999 metres \_\_\_\_\_ 5000 metres + \_\_\_\_\_

Was the researcher able to access the facility during hours of operation without City of Ottawa assistance or permission? Yes \_\_\_ No \_\_\_

Are there signs available outside the facility to indicate there is a public washroom? Yes \_\_\_ No \_\_\_

This toilet considered "unavailable" and the researcher cannot proceed to assess the accessibility and quality criteria: Yes \_\_\_ No \_\_\_





**3) Toilet Quality**

- a) Is the washroom a fixed toilet with running water? (as opposed to a portable toilet) Yes \_\_\_\_ No \_\_\_\_
- b) Does the bathroom appear to be clean? (as indicated by lack of garbage on the floor, reasonably free from dirt)  
Yes \_\_\_\_ No \_\_\_\_
- c) Is there evidence of regular cleaning and maintenance? (ie. a checklist sheet to be signed by cleaning staff)  
Yes \_\_\_\_ No \_\_\_\_
- d) Are there more than 3 stalls in the bathroom? Yes \_\_\_\_ No \_\_\_\_
- e) Is there adequate toilet paper in each stall? Yes \_\_\_\_ No \_\_\_\_
- f) Is there evidence of additional supplies available in the bathroom? Yes \_\_\_\_ No \_\_\_\_
- g) Is running water available in this washroom from the sink faucets? Yes \_\_\_\_ No \_\_\_\_
- h) Are all toilets in good working order? (ie. toilets flush properly, no leaks, no signs posted as out of order and no visible broken parts)  
Yes \_\_\_\_ No \_\_\_\_
- i) Are the floors free from hazards? (ie. cumbersome mats, spilled water, garbage or other items that might lead one to trip/fall)  
Yes \_\_\_\_ No \_\_\_\_
- j) Is the washroom free from noticeable unpleasant odours? Yes \_\_\_\_ No \_\_\_\_
- k) Are there mirrors? Yes \_\_\_\_ No \_\_\_\_
- l) Is the soap dispenser stocked with hand soap? Yes \_\_\_\_ No \_\_\_\_
- m) Is there an option for drying hands? (ie. paper towel, hand dryers) Yes \_\_\_\_ No \_\_\_\_
- n) Are there functioning locks on all stalls? Yes \_\_\_\_ No \_\_\_\_
- o) Are there change tables available in both genders of washrooms?  
Yes, both genders \_\_\_\_ No, only women \_\_\_\_ No change tables \_\_\_\_
- p) Are there sanitary waste disposal units in each stall in the women’s washroom?  
Yes \_\_\_\_ No \_\_\_\_
- q) Is there a garbage disposal bin? Yes \_\_\_\_ No \_\_\_\_
- r) Are the washrooms free from lineups? Yes \_\_\_\_ No \_\_\_\_

**Notes:**

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## Appendix C

## Code Book

**QUANTITATIVE DATA CODE BOOK**  
**VISUAL PUBLIC TOILET ASSESSMENT TOOL**

**PART 1: SURVEY DATA (SURV\_\_)**

#	QUESTION	QUESTION CODE	RESPONSE CODE
A	Day of Survey	SurvA	1. Weekday 2. Weekend
B	Time of Survey	SurvB	1. AM (8am to 11:59am) 2. PM (12pm to 7pm)

**PART 2: TOILET AVAILABILITY (AVAIL\_\_)**

#	QUESTION	QUESTION CODE	RESPONSE CODE
A	Washroom Location	AvailA	1. Central 2. South 3. West 4. East
B	Facility Type	AvailB	1. Comfort Station 2. Athletics and Recreation Facility 3. Community Centre 4. Library/Museum 5. Other
C	Hours of Operation	AvailC	1. Day 2. Day + Evening 3. 24 Hours 4. By public request
D	Seasons of Operation	AvailD	1. Year round 2. Spring/Summer/Fall 3. Summer only
E	Distance to the Closest Public Transit Stop	AvailE	1. 0 to 99 metres 2. 100 to 399 metres 3. 400 to 999 metres 4. 1000 to 4999 metres 5. 5000 + metres
F	Was the researcher able to access the facility during hours of operation without City of Ottawa assistance or permission?	AvailF	1. Yes 2. No
G	Are there signs available outside the facility to indicate there is a public washroom?	AvailG	1. Yes 2. No
H	This toilet considered "unavailable" and the researcher cannot proceed to assess the accessibility and quality criteria.	AvailH	1. Yes 2. No
I	Regional Density	AvailI	1. Urban 2. Suburban 3. Rural

**PART 3: TOILET ACCESSIBILITY (ACCESS\_\_)**

#	QUESTION	QUESTION CODE	RESPONSE CODE
A	Washroom Label	AccessA	0. Washroom unavailable 1. Male/Female 2. Family/Gender Neutral 3. Both
B	Do the signs for the bathroom use standard symbols?	AccessB	0. Washroom unavailable 1. Yes 2. No
C	Is the signage on the bathroom doors equipped with braille?	AccessC	0. Washroom unavailable 1. Yes 2. No
D	Is the ground surrounding public washroom level?	AccessD	0. Washroom unavailable 1. Yes 2. No
E	Are there 4 or fewer steps into or around the public washroom or the surrounding facility?	AccessE	0. Washroom unavailable 1. Yes 2. No 3. Not applicable
F	If there are stairs, is there a ramp of a reasonable incline (1:12) or an elevator/lift?	AccessF	0. Washroom unavailable 1. Yes 2. No 3. Not applicable
G	Are there handrails available outside near the stairs?	AccessG	0. Washroom unavailable 1. Yes 2. No 3. Not applicable
H	Are the doors equipped with either a push bar and/or an automatic push button? (as opposed to a turn handle or pull down/out handle)	AccessH	0. Washroom unavailable 1. Yes 2. No
I	Is there at least one wheelchair accessible stall?	AccessI	0. Washroom unavailable 1. Yes 2. No
K	Are there grab bars/hand rails in the washroom (76 cm long)?	AccessK	0. Washroom unavailable 1. Yes 2. No
L	Do the toilets appear to be an appropriate height (40 to 46 cm)?	AccessL	0. Washroom unavailable 1. Yes 2. No
M	Are the faucets automatic or a lever handle?	AccessM	0. Washroom unavailable 1. Yes 2. No
N	Is there room to maneuver a mobility device (walker or wheelchair)? (160 cm wide by 150 cm deep)?	AccessN	0. Washroom unavailable 1. Yes 2. No
O	Does the stall door width meet the Ontario Building Code (85 cm)?	AccessO	0. Washroom unavailable 1. Yes 2. No
P	Are there gender neutral/family facilities available?	AccessP	0. Washroom unavailable 1. Yes 2. No
Q	Are there biohazard disposal bins available?	AccessQ	0. Washroom unavailable 1. Yes 2. No

R	Is the surrounding area adequately lit?	AccessR	0. Washroom unavailable 1. Yes 2. No
S	Is the washroom visible to surrounding area?	AccessS	0. Washroom unavailable 1. Yes 2. No
T	Are the facilities monitored by staff? (ie. via security cameras or patrolled by City staff)	AccessT	0. Washroom unavailable 1. Yes 2. No

**PART 4: TOILET QUALITY (QUAL\_\_)**

#	QUESTION	QUESTION CODE	RESPONSE CODE
A	Is the washroom a fixed toilet with running water? (as opposed to a portable toilet)	QualA	0. Washroom unavailable 1. Yes 2. No
B	Does the bathroom appear to be clean? (as indicated by lack of garbage on the floor, reasonably free from dirt)	QualB	0. Washroom unavailable 1. Yes 2. No
C	Is there evidence of regular cleaning and maintenance? (ie. a checklist sheet to be signed by cleaning staff)	QualC	0. Washroom unavailable 1. Yes 2. No
D	Are there more than 3 stalls in the bathroom?	QualD	0. Washroom unavailable 1. Yes 2. No
E	Is there adequate toilet paper in each stall?	QualE	0. Washroom unavailable 1. Yes 2. No
F	Is there evidence of additional supplies available in the bathroom?	QualF	0. Washroom unavailable 1. Yes 2. No
G	Is running water available in this washroom from the sink faucets?	QualG	0. Washroom unavailable 1. Yes 2. No
H	Are all toilets in good working order? (ie. toilets flush properly, no leaks, no signs posted as out of order and no visible broken parts)	QualH	0. Washroom unavailable 1. Yes 2. No
I	Are the floors free from hazards? (ie. cumbersome mats, spilled water, garbage or other items that might lead one to trip/fall)	QualI	0. Washroom unavailable 1. Yes 2. No
J	Is the washroom free from noticeable unpleasant odours?	QualJ	0. Washroom unavailable 1. Yes 2. No
K	Are there mirrors?	QualK	0. Washroom unavailable 1. Yes 2. No
L	Is the soap dispenser stocked with hand soap?	QualL	0. Washroom unavailable 1. Yes 2. No
M	Is there an option for drying hands? (ie. paper towel, hand dryers)	QualM	0. Washroom unavailable 1. Yes 2. No
N	Are there functioning locks on all stalls?	QualN	0. Washroom unavailable 1. Yes 2. No

O	Are there sanitary waste disposal units in each stall of the women's washroom?	QualO	0. Washroom unavailable 1. Yes 2. No
P	Is there a garbage disposal bin?	QualP	0. Washroom unavailable 1. Yes 2. No
Q	Are washrooms free from lineups?	QualQ	0. Washroom unavailable 1. Yes 2. No
R	Are change tables available in both genders of washrooms?	QualR	0. Washroom unavailable 1. Yes, both genders 2. No, only women 3. No change tables

**TOILET LEGEND (TOILET #)**

Toilet #	Facility Name and Address
1	Carlington Recreation Centre, 1520 Caldwell Ave
2	St. James Tennis Club, 175 Third Ave
3	Mooney's Bay Beach Building, 2960 Riverside Dr
4	Terry Fox Athletic Facility, 2960 Riverside Dr
5	Dale Little League Building, 235 Dale Ave
6	Kaladar Change Facility, 2554 Kaladar Ave
7	Vanier Riverain Park Tennis Clubhouse, 400 North River Road
8	Leitrim Football Fieldhouse, 3280 Leitrim Road
9	Elizabeth Manley Park Fieldhouse, 1161 Blohm Drive
10	Bob MacQuarrie-Orléans Recreation Complex, 1490 Youville Drive
11	Elmdale Tennis Club, 250 Holland Ave
12	Tom Brown Arena, 141 Bayview Rd
13	Lowertown Pool, 40 Cobourg St
14	Westboro Beach Building, 745 Sir John A. MacDonald Parkway
15	Manotick Arena, 5572 Doctor Leach Drive
16	Heritage Park Fieldhouse, 6160 Olreans Blv.
17	Canterbury Pool, 2185 Arch St.
18	Blackburn Arena, 200 Glen Park Ave
19	Ray Friel Complex, 1585 Tenth Line Rd
20	Crestview Pool, 58 Fieldrow Street
21	Walter Baker Sports Centre, 100 Malvern Drive
22	Gerry Line's Bowling Alley, 6548 Fourth Line
23	Johnny Leroux Arena, 10 Warner-Colpitts Lane
24	Glen Cairn Pool, 70 Castlefrank Road
25	Kanata Leisure Centre, 580 Terry Fox Dr
26	Dovercourt Recreational Complex, 411 Dovercourt Avenue
27	Woodroffe Park: Fieldhouse, 180 Lockhart Ave.
28	Dick Bell Park/Nepean Sailing Club, 3259 Carling Ave.

29	Bayshore Community Building, 175 Woodridge Dr.
30	Andrew Haydon Park Picnic Gazebo, 3169 Carling Ave.
31	Valleystream Tennis Clubhouse, 3045 Baseline Rd.
32	Champagne Bath, 321 King Edward Ave.
33	Jack Purcell Community Centre and Pool, 320 Jack Purcell Lane.
34	St. Laurent Complex / Don Gamble Community Centre, 515-525 Cote St.
35	Splash Wave Pool North Gloucester, 2040 Ogilvie Rd.
36	Richcraft Recreation Complex, 4101 Innovation Dr.
37	West Carleton Community Arena, 5670 Carp Rd.
38	Strathcona Feildhouse, 25 Range Rd
39	Brewer Park, 100 Brewer Way
40	Ken Ross Park - South Nepean Gazebo, 700 Longfields Drive
41	Alexander Grove Park, 10 Warner Colpitts Lane
42	Cumberland Millennium Sports Park Comfort Station, 100 Millennium Blvd
43	Pinhey's Point Historic Site: Comfort Station, 270 Pinhey Point Road
44	Fisher Heights Community Centre
45	Glebe Community Centre, 175 Third Ave
46	Rockcliffe Park Community Centre
47	Overbrook Community Centre, 33 Quill Street
48	Gloucester Community Centre, 4550 Bank Street
49	Manor Park Community Centre, 100 Braemar Street
50	Hintonburg Community Centre
51	Sandy Hill Community Centre, Somerset
52	South Fallingbrook Community Centre, 998 Valin St.
53	Notre-Dame Community Centre, 3659 Navan Rd
54	Chapman Mills Community Building, 424 Chapman Mills Drive
55	Ottawa South Community Centre, 260 Sunnyside Ave
56	Bridlewood Community Centre, 63 Blue Grass Drive
57	Churchill Senior Recreation Centre, 345 Richmond Rd.
58	Qualicum Graham Park Community Centre, 48 Nanaimo Dr.
59	North Greely Community Centre, 1448 Meadow Dr.
60	Hunt Club Riverside Community Centre, 3320 Paul Anka Dr.
61	Munster Community Centre, 58 Dogwood Dr.
62	Huntley Community Hall, 108 Juanita Ave.
63	Constance and Buckham's Bay Community Centre, 262 Len Purcell Drive
64	Kinburn Community Centre, 3045 Kinburn Side Rd
65	Fitzroy Harbour Community Center, 100 Clifford Campbell St.
66	Main Library downtown Ottawa, 120 Metcalfe St.
67	Billings Bridge Museum, 2100 Cabot St.
68	Interpretation Centre, 795 Trim Rd.

69	Alta Vista Library, 2516 Alta Vista Dr.
70	Elmvale Acres Library, 1920 Saint-Laurent Blv.
71	Olreans Library, 1705 Orleans Blv.
72	Museum Archives North Gower, 6581 Fourth Line Rd.
73	James Bartleman Archives Library, 100 Tallwood Dr.
74	Hazeldean Library, 50 Castlefrank Rd.
75	Pinhey Point Road Estate Building, 270 Pinhey Point Rd
76	Cumberland Village Museum, 2940 Old Montreal Rd.
77	North Gloucester Library, 2036 Ogilvie Rd.
78	North Greely Library, 1448 Meadow Dr.
79	Goulbourn Museum, 2060 Huntley Rd.
80	Carp Library, 3911 Carp Rd.
81	Traffic Operations, 175 Loretta Ave.
82	City Hall, 110 Lisgar St.
83	Miller's Tea Oven Restaurant, 1137 Mill St.
84	McKenna Park School Building, 3131 Jockvale Rd.
85	Clyde Avenue Works Complex, 951 Clyde Avenue
86	Kanata Client Services Centre, 580 Terry Fox Dr.
87	Ron Maslin Theatre, 1 Ron Maslin Way
88	Arts Court, 2 Daly Avenue
89	Employment Resource Centre, 2020 Walkley Rd.
90	Shenkman Arts Centre, 245 Centrum Blv.
91	West Carleton Community Complex Offices, 5670 Carp Road
92	Heritage Park Fieldhouse Storage, 6160 Orleans Blvd





**Frequency Distributions**

**FREQUENCY TABLES  
 VISUAL PUBLIC TOILET ASSESSMENT TOOL**

**PART 1: SURVEY DATA**

**A) DAY OF SURVEY**

	Frequency	Percent	Cumulative Percent
Weekday	52	56.5	56.5
Weekend	40	43.5	100.0
Total	92	100.0	

**B) TIME OF SURVEY**

	Frequency	Percent	Cumulative Percent
AM	30	32.6	32.6
PM	62	67.4	100.0
Total	92	100.0	

**PART 2: TOILET AVAILABILITY**

**A) WASHROOM LOCATION**

	Frequency	Percent	Cumulative Percent
Central	25	27.2	27.1
East	28	30.5	57.7
South	12	13.0	70.7
West	27	29.3	100.0
Total	92	100.0	

**B) FACILITY TYPE**

	Frequency	Percent	Cumulative Percent
Comfort Station	6	6.5	6.5
Athletics/Recreation	37	40.2	46.7
Community Center	23	25.0	71.7
Library/Museum	15	16.3	88.0
Other	11	12.0	100.0
Total	92	100.0	

**C) HOURS OF OPERATION**

	Frequency	Percent	Cumulative Percent
Day	33	35.9	35.9
Day + Evening	53	57.6	93.5
By Public Request	6	6.5	100.0
Total	92	100.0	

**D) SEASONS OF OPERATION**

	Frequency	Percent	Cumulative Percent
Year Round	68	73.9	73.9
Spring-Fall	11	12.0	85.9
Summer Only	13	14.1	100.0
Total	92	100.0	

**E) DISTANCE TO CLOSEST PUBLIC TRANSIT STOP**

	Frequency	Percent	Cumulative Percent
0 to99 m	46	50.0	50.0
100 to 399 m	24	26.1	76.1
400 to 999 m	12	13.0	89.1
1000 to 4999 m	1	1.1	90.2
5000 + m	9	9.8	100.0
Total	92	100.0	

**F) TOILET ACCESSIBLE WITHOUT CITY OF OTTAWA STAFF PERMISSION**

	Frequency	Percent	Cumulative Percent
Yes	49	53.3	53.3
No	43	46.7	100.0
Total	92	100.0	

**G) BUILDING HAS OUTDOOR SIGNAGE TO INDICATE PUBLIC WASHROOM**

	Frequency	Percent	Cumulative Percent
Yes	14	15.2	15.2
No	78	84.8	100.0
Total	92	100.0	

**H) TOILET CONSIDERED UNAVAILABLE**

	Frequency	Percent	Cumulative Percent
Yes	41	44.6	44.6
No	51	55.4	100.0
Total	92	100.0	

**I) REGIONAL DENSITY**

	Frequency	Percent	Cumulative Percent
Urban	47	51.1	51.1
Suburban	21	22.8	73.9
Rural	24	26.1	100.0
Total	92	100.0	

**PART 3: TOILET ACCESSIBILITY****A) WASHROOM LABEL**

	Frequency	Percent	Cumulative Percent
Male/Female	41	78.8	78.8
Family/Gender Neutral	6	11.5	90.4
Both	5	9.6	100.0
Total	52	100.0	

**B) SIGNS USE STANDARD SYMBOLS**

	Frequency	Percent	Cumulative Percent
Yes	49	96.1	96.1
No	2	3.9	100.0
Total	51	100.0	

**C) SIGNAGE EQUIPPED WITH BRAILLE**

	Frequency	Percent	Cumulative Percent
Yes	41	80.4	80.4
No	10	19.6	100.0
Total	51	100.0	

**D) GROUND IS LEVEL**

	Frequency	Percent	Cumulative Percent
Yes	48	96.0	96.0
No	2	4.0	100.0
Total	50	100.0	

**E) FOUR OR FEWER STAIRS TO ACCESS TOILET OR SURROUNDING FACILITY**

	Frequency	Percent	Cumulative Percent
Yes	10	19.6	19.6
No	9	17.6	37.3
NA	32	62.7	100.0
Total	51	100.0	

**F) RAMP AT REASONABLE INCLINE AND/OR ELEVATOR AS ALTERNATIVE TO STAIRS**

	Frequency	Percent	Cumulative Percent
Yes	13	25.5	25.5
No	3	5.9	31.4
NA	35	68.6	100.0
Total	51	100.0	

**G) HANDRAILS AVAILABLE NEAR STAIRS**

	Frequency	Percent	Cumulative Percent
Yes	15	30.0	30.0
No	35	70.0	100.0
Total	50	100.0	

**H) DOORS EQUIPPED WITH PUSH BUTTON/PUSH BAR**

	Frequency	Percent	Cumulative Percent
Yes	41	80.4	80.4
No	10	19.6	100.0
Total	51	100.0	

**I) DESIGNATED WHEELCHAIR ACCESSIBLE STALL**

	Frequency	Percent	Cumulative Percent
Yes	47	92.2	92.2
No	4	7.8	100.0
Total	51	100.0	

**K) GRAB BARS/HAND RAILS IN THE WASHROOM (76 CM LONG)**

	Frequency	Percent	Cumulative Percent
1.0	38	74.5	74.5
2.0	13	25.5	100.0
Total	51	100.0	

**L) TOILETS APPEAR TO BE AN APPROPRIATE HEIGHT (40 TO 46 CM)**

	Frequency	Percent	Cumulative Percent
Yes	42	84.0	84.0
No	8	16.0	100.0
Total	50	100.0	

**M) FAUCETS ARE LEVER HANDLE OR AUTOMATIC**

	Frequency	Percent	Cumulative Percent
Yes	51	100.0	100.0
No	0	0.0	0.0

**N) THERE IS ROOM TO MANEUVER A MOBILITY DEVICE (150 CM BY 160 CM)**

	Frequency	Percent	Cumulative Percent
Yes	26	51.0	51.0
No	25	49.0	100.0
Total	51	100.0	

**O) UNIT OR STALL DOOR WIDTH MEETS ONTARIO BUILDING CODE (85 CM)**

	Frequency	Percent	Cumulative Percent
Yes	42	82.4	82.4
No	9	17.6	100.0
Total	51	100.0	

**P) THERE ARE FAMILY/GENDER NEUTRAL FACILITIES AVAILABLE**

	Frequency	Percent	Cumulative Percent
Yes	10	20.4	20.4
No	39	79.6	100.0
Total	49	100.0	

**Q) BIOHAZARD DISPOSAL BINS ARE AVAILABLE**

	Frequency	Percent	Cumulative Percent
Yes	2	3.9	3.9
No	49	96.1	100.0
Total	51	100.0	

**R) SURROUNDING AREA IS ADEQUATELY LIT**

	Frequency	Percent	Cumulative Percent
Yes	51	100.0	100.0
Total	51	100.0	100.0

**S) WASHROOM IS VISIBLE TO SURROUNDING AREA**

	Frequency	Percent	Cumulative Percent
Yes	50	98.0	98.0
No	1	2.0	100.0
Total	51	100.0	

**T) FACILITIES ARE MONITORED BY STAFF**

	Frequency	Percent	Cumulative Percent
Yes	44	86.3	86.3
No	7	13.7	100.0
Total	51	100.0	

**PART 4: TOILET QUALITY****A) WASHROOM IS FIXED WITH RUNNING WATER**

	Frequency	Percent	Cumulative Percent
Yes	51	100.0	100.0



**B) WASHROOM IS CLEAN**

	Frequency	Percent	Cumulative Percent
Yes	51	100.0	100.0

**C) EVIDENCE OF REGULAR CLEANING AND MAINTENANCE**

	Frequency	Percent	Cumulative Percent
Yes	7	14.0	14.0
No	43	86.0	100.0
Total	50	100.0	100.0

**D) MORE THAN 3 STALLS IN WOMEN'S TOILET**

	Frequency	Percent	Cumulative Percent
1.0	20	39.2	39.2
2.0	31	60.8	100.0
Total	51	100.0	

**E) ADEQUATE TOILET PAPER IN EACH STALL**

	Frequency	Percent	Cumulative Percent
Yes	51	100.0	100.0

**F) EVIDENCE OF ADDITIONAL SUPPLIES IN WASHROOM**

	Frequency	Percent	Cumulative Percent
Yes	7	14.0	14.0
No	43	86.0	100.0
Total	50	100.0	

**G) SINKS EQUIPPED WITH RUNNING WATER**

	Frequency	Percent	Cumulative Percent
Yes	51	100.0	100.0

**H) TOILETS IN GOOD WORKING ORDER**

	Frequency	Percent	Cumulative Percent
Yes	51	100.0	100.0

**I) FLOORS FREE FROM HAZARDS**

	Frequency	Percent	Cumulative Percent
Yes	50	98.0	98.0
No	1	2.0	100.0
Total	51	100.0	

**J) WASHROOM FREE FROM UNPLEASANT ODOURS**

	Frequency	Percent	Cumulative Percent
Yes	49	96.1	96.1
No	2	3.9	100.0
Total	51	100.0	

**K) MIRRORS IN WASHROOM**

	Frequency	Percent	Cumulative Percent
Yes	51	100.0	100.0

**L) SOAP DISPENSER IS STOCKED WITH SOAP**

	Frequency	Percent	Cumulative Percent
Yes	51	100.0	100.0

**M) THERE IS AN OPTION FOR DRYING HANDS**

	Frequency	Percent	Cumulative Percent
Yes	51	100.0	100.0

**N) ALL STALLS HAVE FUNCTIONING LOCKS**

	Frequency	Percent	Cumulative Percent
Yes	49	98.0	98.0
No	1	2.0	100.0
Total	50	100.0	

**O) SANITARY DISPOSAL UNITS IN BATHROOM**

	Frequency	Percent	Cumulative Percent
Yes	43	82.7	82.7
No	9	17.3	100.0
Total	52	100.0	

**P) GARBAGE DISPOSAL BIN IN WASHROOM**

	Frequency	Percent	Cumulative Percent
Yes	51	100.0	100.0

**Q) WASHROOMS ARE FREE FROM LINEUPS**

	Frequency	Percent	Cumulative Percent
Yes	52	100.0	100.0

**R) CHANGE TABLES IN BOTH GENDERS OF BATHROOM**

	Frequency	Percent	Cumulative Percent
Yes	22	44.0	44.0
Women Only	9	18.0	62.0
None	19	38.0	100.0
Total	50	100.0	