



JOINT MEDIA RELEASE

Public Toilets Dirtier than in 2016

Nationwide study by SMU senior lecturer and students shows dip in public hygiene standards in toilets at coffee shops, hawker centres

Singapore, 26 May 2020 – Singapore may be one of the cleanest cities in the world, but this cleanliness does not extend to all of the toilets in our coffee shops and hawker centres. A study conducted through an SMU undergraduate course from 10 January to 7 February 2020 also revealed that more than a quarter of customers interviewed said that they would not use the toilets in such eating places.

The nationwide study, whimsically named "Waterloo", was conducted by SMU Senior Lecturer of Statistics <u>Rosie Ching</u> and her 157 SMU undergraduates. As part of the investigation, they also interviewed 8,217 customers and hawkers about the state of toilets in coffee shops and food centres across all postal codes in Singapore.

This year's nationwide survey of toilet hygiene was a follow-up to the original one done in 2016 by Ms Ching and her students who also covered Singapore nationally. Both years comprised comprehensive on-site surveys of toilet attributes. The 2020 one had the new element of interviews with customers and employees' perceptions of toilet cleanliness.

Public toilet hygiene has fallen, with the dirtiest toilets in Tuas, Telok Blangah and Bukit Batok. Marina South topped the list again for the cleanest public toilets, followed by Tanglin and Changi. (*Please refer to attachments for captioned photographs.*)

SMU found that more than a quarter of the 5,948 customers interviewed at the coffee shops and hawker centres where they were eating, said that they would not use the toilets there. More than 3 in 5 indicated there was a need for moderate to a complete overhaul of toilet cleanliness. While almost all (97%) of the 2,269 coffee shop and hawker centre workers said that they used the toilets there, more than half stressed there was a need to improve the state of the toilets. Full interactive results can be found at www.toiletstatistics.com

Dr. Teo Ho Pin, MP for Bukit Panjang and Mayor of North-West Community Development Council, was the patron of Project Waterloo, which also had the support of the World Toilet Organisation (WTO), Public Hygiene Council (PHC), Singapore Kindness Movement (SKM) and Restroom Association Singapore (RAS). (*Please refer to Page 3 for quotes from supporting partners.*)

Although the COVID-19 outbreak curtailed a final small portion of the fieldwork, Ms Ching and her students successfully surveyed public toilets in 104 out of 114 hawker centres and 1181 out of 1330 coffee shops across Singapore. Waterloo was part of SMU's Statistics-X course run by Ms Ching, which incorporates the SMU-X learning framework, applying rigorous academic processes to address real-world societal issues. (*Please refer to Page 4 for student quotes.*)

Said Ms Ching: "This was an intensely difficult and comprehensive survey of toilets and toilet users at hawker centres and coffee shops. Given Singapore's reputation for progress and advancement, one would have expected the statistics to reveal the same for public toilet cleanliness. Although I personally harboured considerable doubt owing to the state of public



toilets I had visited, it was still disheartening to see statistical analyses reveal a marked regression in toilet hygiene from 2016, and furthermore, in almost every single attribute of toilet cleanliness on average."

"My students and I hope that our collective work in surveying, data-collection and results will spur greater action towards improving our public toilet hygiene, especially now with the COVID-19 pandemic. We absolutely need to take greater care of the well-being of our toilet cleaners as well, given the daily conditions they face in tackling dirty toilets."

Dr Teo Ho Pin, Mayor of North West District and patron of the project commented: "Poor standard of cleanliness and hygiene of public toilets will have serious impact on the health and well-being of our people, especially seniors. Ultimately, clean public toilets can only become a reality with the conscious efforts of users to keep them clean, which will complement robust design and maintenance guidelines."

Survey findings:

- Marina South tops the list for the cleanest public toilets in hawker centres and coffee shops, followed by Tanglin and Changi. Marina South topped the list in 2016.
- The dirtiest hawker centre and coffeeshop toilets are in Tuas, Telok Blangah and Bukit Batok. Telok Blangah ranked bottom in 2016.
- In 2020, coffeeshop toilets score 46.35, significantly dirtier than hawker centre toilets weighing in at 58.23.
- Hawker centre toilets are significantly dirtier than they were four years ago, whereas coffee shop toilets have stayed dirty and largely unchanged.
- The cleanest toilets today are handicapped toilets (with a score of 51.70), followed by men's toilets (51.54) and women's toilets (47.44, significantly lower). The dirtiest are unisex or shared toilets (42.89).
- Many toilet attributes have suffered a fall in cleanliness from 2016 to 2020, with the sharpest drop in toilet bowl cleanliness. Of significant note is the correlation between proximity of toilets to cooking facilities and toilet hygiene. The closer the toilets, the lower the toilet cleanliness index.
- Except for South-East CDCD (54.01), all other CDCDs are below the 50th percentile, with the biggest drop in the North-East CDCD.

Please refer to Page 5 for the detailed survey methodology.





Quotes from Supporting Partners:

Mr. Jack Sim, Founder and CEO of WTO:

"The public toilet and personal hygiene are our first line of defence against Covid-19. We hope owners and operators of coffee shops and hawkers centres will employ professionally-trained cleaners and ensure a good state of repair for the safety of the public. I advise the public to act by avoiding coffeeshops with dirty toilets. Remember that even if you don't use these dirty toilets, the cooks who prepare your food are using them. If there is no soap to wash their hands, you may be eating their dirt. This will motivate the coffeeshops to keep their toilets clean."

Mr. Edward De Silva, PHC Chairman:

"The survey findings are not surprising. They reflect the mentality of our citizens and our overreliance on toilet cleaners. How to redress this mindset is the most challenging task. At the same time, the survey indicates the onus is on the owners of these premises to improve the toilet hygiene standards. Perhaps some form of enforcement may have to be considered to overcome the *bo chap* attitude of the owners."

Dr. William Wan, SKM General Secretary:

"While hawker centres and coffeeshop operators should re-look at the state of their restrooms, users like ourselves also have a part to play. If we can keep our home toilets clean, we should do so when we are in shared public toilets. We can be greater by being thoughtful and keeping the restrooms clean and dry for the users after us."

RAS Executive Director, Mr. Emerson Hee:

"RAS was happy to support Waterloo with Rosie Ching by training SMU students on the criteria of assessing toilet standards so that they could properly assess the public toilets in coffee shops and hawker centres. With these findings and results, RAS can better formulate solutions and work with the stakeholders to resolve the challenges."





Quotes from SMU students:

Students reacted with a mixture of excitement and apprehension about studying public toilets as part of their Statistics-X undergraduate module.

First-year SMU Lee Kong Chian School of Business student, Hakim Zahrin: "It was exhausting but really satisfying. I really hope that after this, all Singaporeans will do their part in keeping our toilets clean. Here's to a cleaner Singapore!"

First-year SMU Lee Kong Chian School of Business student, Derrick Chua Wen Jie: "I am privileged to be involved in Waterloo. The current pandemic serves as a grim reminder of the importance of sanitation and of how hygiene is everyone's shared responsibility."

First-year SMU School of Social Sciences student, Prabhudeva Krishnan: "A learning journey that has been the highlight of my University life, Waterloo has made me realise that we can do so much better. I hope we will be able to spur a new wave in taking care of and having pride in our public toilets in our eating places. Only then will Singapore be truly a first-class country."

First-year SMU School of Social Sciences student, Prajwala Kanakesh: "Waterloo made me realise how statistics can be applied to our everyday lives. My hope is that our data analysis will be used to improve the current standard of Singapore's hawker center and coffee shop toilets."

First-year SMU School of Information Systems student, Elvis Leong Wei Kiat: "With Ms Ching, my fellow classmates and I worked on Waterloo with a passionate heart for the community, pushing to make Singapore a better place."

Second-year SMU School of Accountancy student, Joshua Tan Jing Yi: "Waterloo has indeed been thrilling even as the COVID-19 pandemic erupted. I hope that our work serves as a timely update in this time of heightened awareness of cleanliness and hygiene, that we may improve the cleanliness of Singapore's public toilets."

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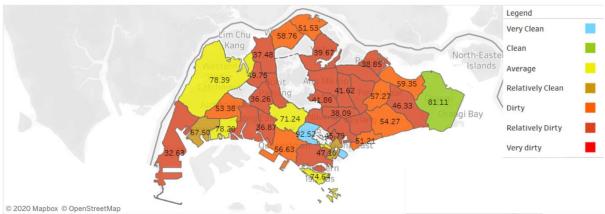
Waterloo Methodology:

Rosie Ching started plans for Waterloo in August 2019, and intensive field work began in early January this year. By the time Covid-19 concerns kicked in and she halted all fieldwork in early February, everyone had already surveyed 104 hawker centres, 1,181 coffee shops across Singapore, and interviewed 8,217 customers and workers.

The toilet survey comprised more than 100 questions on toilet attribute cleanliness, comprehensively covering the relevant aspects such as mirrors, taps, sinks, soap dispensers, toilet paper, toilet bowls, flushes, floors, rubbish bins, sanitation bins, urinals, and ventilation. Each of these attributes were rated and built into the Toilet Cleanliness Index (TCI) for every toilet. The TCI is on a scale from 0 to 100: 100 being the cleanest and 0 the filthiest.

Human respondents participated in the survey of human perceptions of toilet hygiene in eleven questions which lent to the Human Perception of Toilet Cleanliness Index (HPTCI), which is on a scale from 0 to 100: 100 being the most positive (perceived cleanest) perception of a toilet's cleanliness, and 0 the most negative (perceived dirtiest).

For full results and interactive graphics, visit www.toiletstatistics.com.



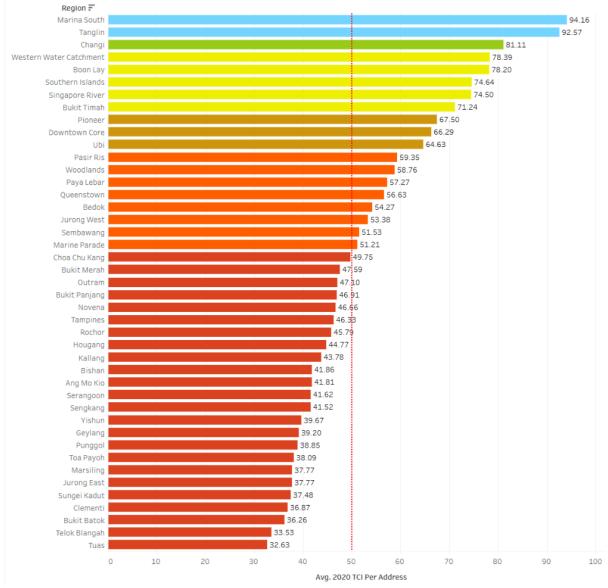
TCI (2020) by Region

Source: www.toiletstatistics.com (Rosie Ching)



This chart will be clear in its message viz a viz all other charts present once the website is revealed.





Source: www.toiletstatistics.com (Rosie Ching)





About World Toilet Organisation (WTO)

The World Toilet Organisation (WTO) is the leading global voice for sanitation – a non-profit organization working towards a world with clean, safe toilets and sanitation for everyone, everywhere, at all times. Breaking the taboo silence on the sanitation crisis is at the heart of WTO's efforts. WTO was founded by Jack Sim in Singapore on 19th November 2001.

Since its inception, WTO has brought together key players from governments, academia, civil society, multilateral agencies and the private sector to explore innovative and sustainable solutions to end the global sanitation crisis.

WTO has commemorated its founding day as World Toilet Day since 2001 and in 2013 the United Nations adopted the 19th of November as UN World Toilet Day. WTO also achieved special consultative status with the United Nations Economic and Social Council (ECOSOC) in the same year.

About Public Hygiene Council (PHC)

The Public Hygiene Council (PHC) was formed to help raise standards of hygiene and cleanliness in Singapore. The Council, comprising representatives from public and private sectors, galvanise and lead ground-up community and industry initiatives to help keep Singapore clean. PHC also complements the government's education and enforcement efforts to maintain high standards of personal and public cleanliness and hygiene. For more information, visit www.publichygienecouncil.sg.

About Singapore Kindness Movement (SKM)

Kindness is in everyone. The Singapore Kindness Movement (SKM) wants to encourage everyone to start, show and share kindness. We aspire to inspire graciousness - one kind act at a time. By sparing a thought for the people around us, we hope to create a gracious society, and make life better for you and me. SKM is a non-government, non-profit organisation, as well as a registered charity and Institution of Public Character.

About Restroom Association (Singapore) (RAS)

The vision of the Restroom Association (Singapore) is A Gracious Society Embracing Excellence in Restroom Culture. Started in 1998 as a non-profit organisation, RAS is dedicated to building an excellent restroom culture by actively engaging owners, the cleaning industry and users to play their part. Some of its programmes – supported by the National Environment Agency (NEA) – include the Happy Toilet Programme, Happy Toilets @ Preschools Programme, STAR (Sustaining Toilets As Restrooms) Awards Programme, Eco-Assessor Programme and LOO (Let's Observe Ourselves) Carnival & Awards. RAS is a strategic partner in national community events like Clean & Green Singapore and is also a founding member of the World Toilet Organization and the Keep Singapore Beautiful Movement.



About Singapore Management University (SMU)

A premier university in Asia, the Singapore Management University (SMU) is internationally recognised for its world-class research and distinguished teaching. Established in 2000, SMU's mission is to generate leading-edge research with global impact and to produce broadbased, creative and entrepreneurial leaders for the knowledge-based economy. SMU's education is known for its highly interactive, collaborative and project-based approach to learning

Home to over 10,000 students across undergraduate, postgraduate professional and postgraduate research programmes, SMU comprises six schools: School of Accountancy, Lee Kong Chian School of Business, School of Economics, School of Information Systems, School of Law, and School of Social Sciences. SMU offers a wide range of bachelors, masters and PhD degree programmes in the disciplinary areas associated with the six schools, as well as in multidisciplinary combinations of these areas.

SMU emphasises rigorous, high-impact, multi- and interdisciplinary research that addresses Asian issues of global relevance. SMU faculty members collaborate with leading international researchers and universities around the world, as well as with partners in the business community and public sector. SMU's city campus is a modern facility located in the heart of downtown Singapore, fostering strategic linkages with business, government and the wider community. www.smu.edu.sg

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