The Playability Study Summary Report

Prepared by the Playability project team
at the Brussoni Lab

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Playability

THE PLAYABILITY STUDY OBJECTIVE:

To understand the perspectives of children aged 10 to 13 years, and their parents on why they are motivated – or not – to play outside.

WHAT WE ARE INTERESTED TO UNDERSTAND:

How the physical environments as well as individual and social factors influence children's outdoor play.

OUR ULTIMATE GOAL:

To develop Playability Index (similar to Walkability Index) that will be useful for designing urban environments to meet children's needs and positively influence their development and wellbeing.

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WHAT WE LOOKED AT:

1. Children's outdoor play.
2. Children's perceptions of their neighbournhood in the context of children's outdoor play.
3. Parents' perceptions of their neighbourhood in the context of children's outdoor play.

OUR STUDY AREA:

1. North Vancouver, BC, Canada – Lower and Central Lonsdale.
2. Vancouver, BC, Canada – Grandview-Woodland.
3. Richmond, BC, Canada – Steveston.

OUR PARTICIPANTS:

A total of 105 children (35 from each neighbourhood) participated in:
- Wearing a GPS watch and an accelerometer for 7 days.
- Go-along interview (where they gave us a tour of their neighbourhood).
- Go-along photo-taking exercise (where they took pictures of anything significant in their neighbourhood during the go-along interview).
- Neighbourhood map drawing exercise.
- Demographic and other surveys.

A total of 135 parents participated in:
- Individual interview.
- Demographic and other surveys.

Photo by 1013_1 – 10-year-old girl

Photo by 2026_1 – 10-year-old girl

Photo by 3021_1 – 11-year-old girl

Richmond children's outdoor play

Playability project – UBC / BCCHR

- **Participants**: 35 families of children between 10 – 13 years old (35 children and 41 parents).

- **Study period**: April 2016 to June 2018.

- **Studied area**: Steveston (bordered by William Road, Waterfront to South and West, and N. 2 Road.

Photo by 3007_1 – 10 year-old girl

Demographics – children (N=35)

- **Age**: mean=11.4 years old, range 10-13 years old.
- **Gender**: boys (50.7%).
- **Grade**: mostly in Grade 6 (33.3%), range Grade 4-9.
- **Ethnicity**: Caucasian (66.7%).
- **Pets**: Yes (50.7%) – mostly cats (24.6%).
- Self-rated **physical** health status: 42.7% excellent.
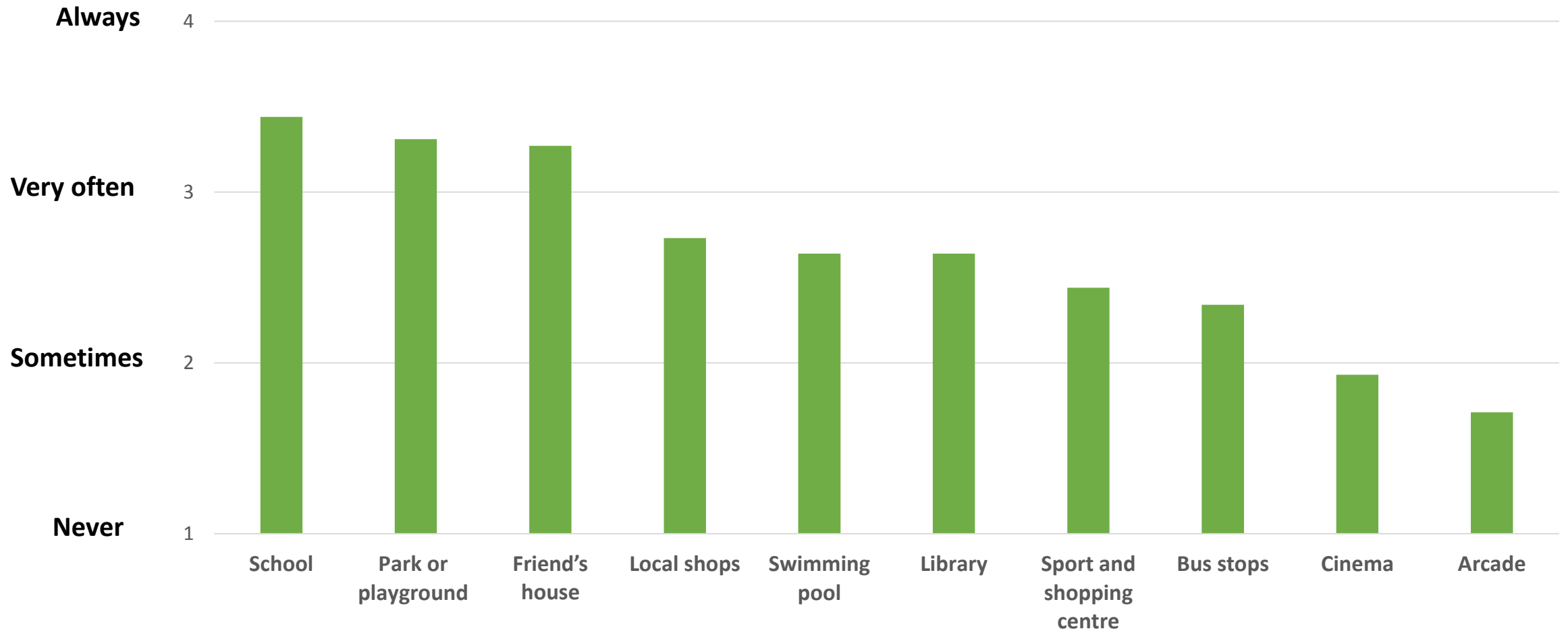- Self-rated **mental** health status: 56.5% excellent.

Photo by 3006_1 – 11-year-old boy

Demographics – parents (N=41)

- **Age**: mean=44.4 years old, range 35-56 years old.
- **Gender**: mothers (80.5%).
- **Ethnicity**: Caucasian (73.2%).
- **Marital status**: married/common-in-law (97.6%).
- **Education:** university or higher (63.4%).
- **Job**: employed for wages (51.2%).

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Photo by 3023_1 – 12-year-old girl

Demographics – households (N=35)

- **Income**: > $110,000 (48.6%).

- **Housing type**: single-detached house (34.3%).

- **Number of children in household**: 2 (51.4%).

Photo by 3024_1 – 10-year-old boy

Places children can go independently (from child surveys)

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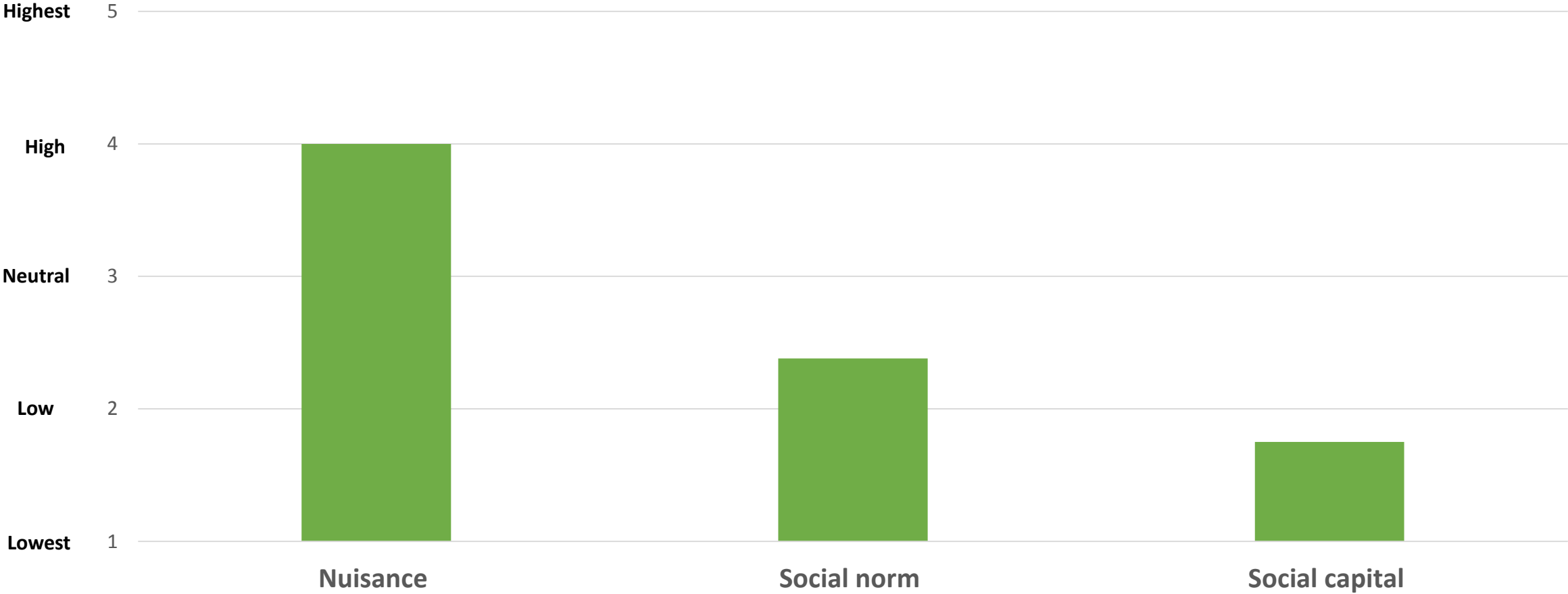
Physical environment – "walkability" (from parent surveys)*

*The higher number represents the more positive view.

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Social environment (from child surveys)

*Refer to the questions included in the surveys in the next slide.

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Social environment – child survey questions

Social capital:
1. People say 'hello' and often stop to talk to each other in the street.
2. It is safe for younger children to play outside during the day.
3. You can trust people around here.
4. There are good places to spend my free time (e.g., recreation centres, parks, shopping centres).
5. I could ask for help or a favour from neighbours.
6. Most people around here would try to take advantage of me if they got the chance.
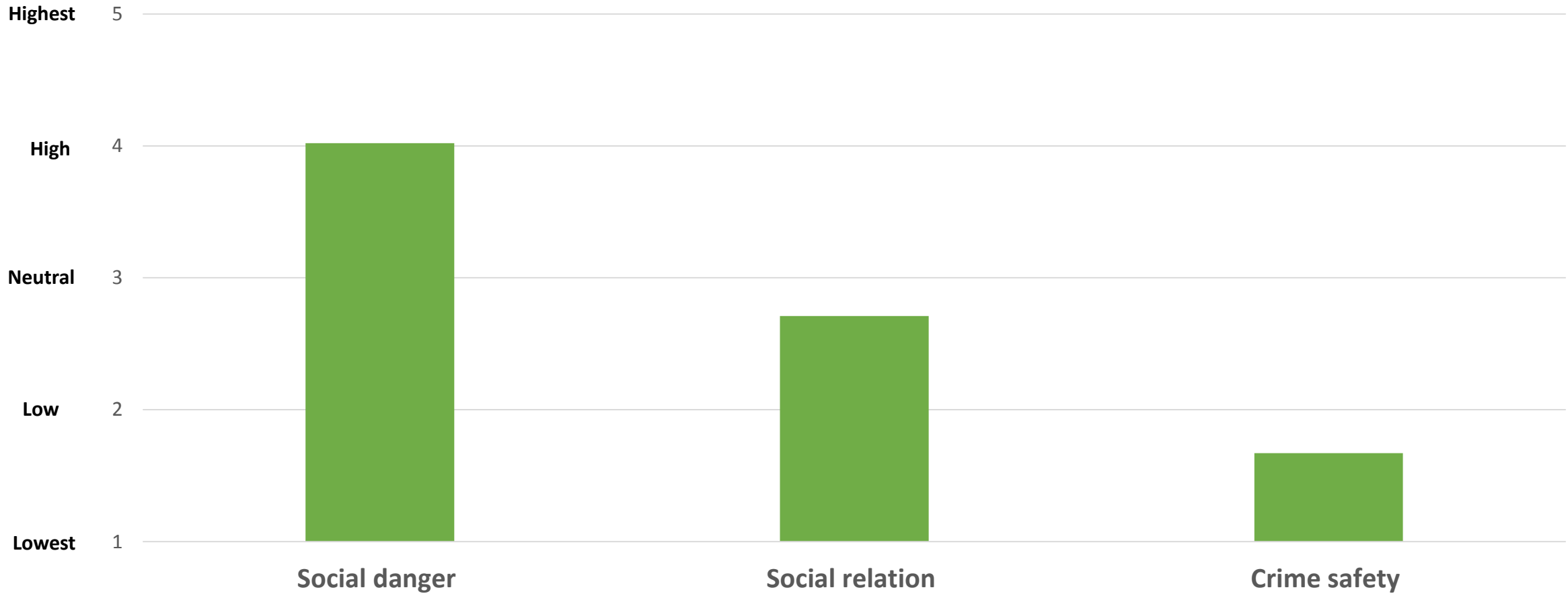
Social norm:
1. There are children to play with.
2. There are children on streets.
3. There are people walking and cycling around.

Nuisance:
1. There is a high crime rate.
2. It's very noisy.
3. There is a lot of bullying.

Social environment – parent survey questions

Social relation:
1. I visit with my neighbours in their homes
2. I have neighbours over to my house to visit
3. I stop and talk to people in my neighbourhood.
4. I meet with my neighbours to spend some time doing things together.
5. I exchange favours with my neighbours.

Social danger:
1. In the streets around my home there are areas frequented by drug pushers and/or drug addicts.
2. A child who goes out alone can encounter ill-intentioned adults.
3. In my neighbourhood, you can find syringes on the ground.
4. A child who goes out alone can see things that may frighten him/her.
5. In my neighbourhood, there are robberies and bag-snatchings.
6. In my neighbourhood, there are people who dress/behave strangely.
7. In the streets around my home, there are neglected areas (dirty, with large abandoned objects, etc.).

Crime safety:
1. There is a high crime rate in our neighborhood.
2. The crime rate in our neighborhood makes it unsafe for my child to go on walks (alone or with someone) at night.
3. I am worried about letting my child play outside alone around my home (e.g., yard, driveway, apartment common area) because I am afraid of them being taken or hurt by a stranger.
4. I am worried about letting my child be outside with a friend around my home because I am afraid my child will be taken or hurt by a stranger.
5. I am worried about letting my child play or walk alone or with friends in my neighborhood and local streets because I am afraid my child will be taken or hurt by a stranger.
6. I am worried about letting my child be alone or with friends in a local or nearby park because I am afraid my child will be taken or hurt by a stranger.

Children's outdoor time

- All outdoor time: 78.7 min/day.

- Unsupervised outdoor time: 37.6 min/day.

Photo by 3029_1 – 13-year-old girl

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Outdoor time: minutes/day, mean (SD)

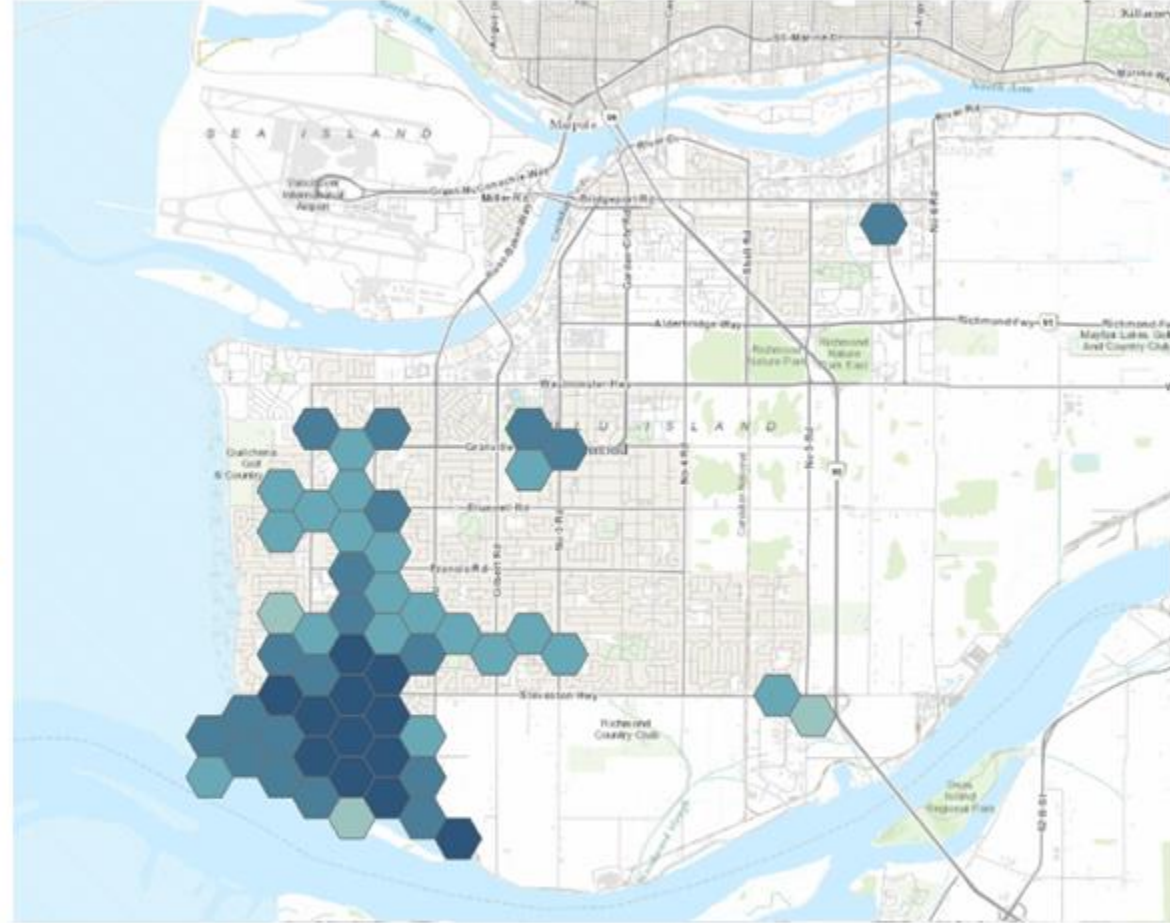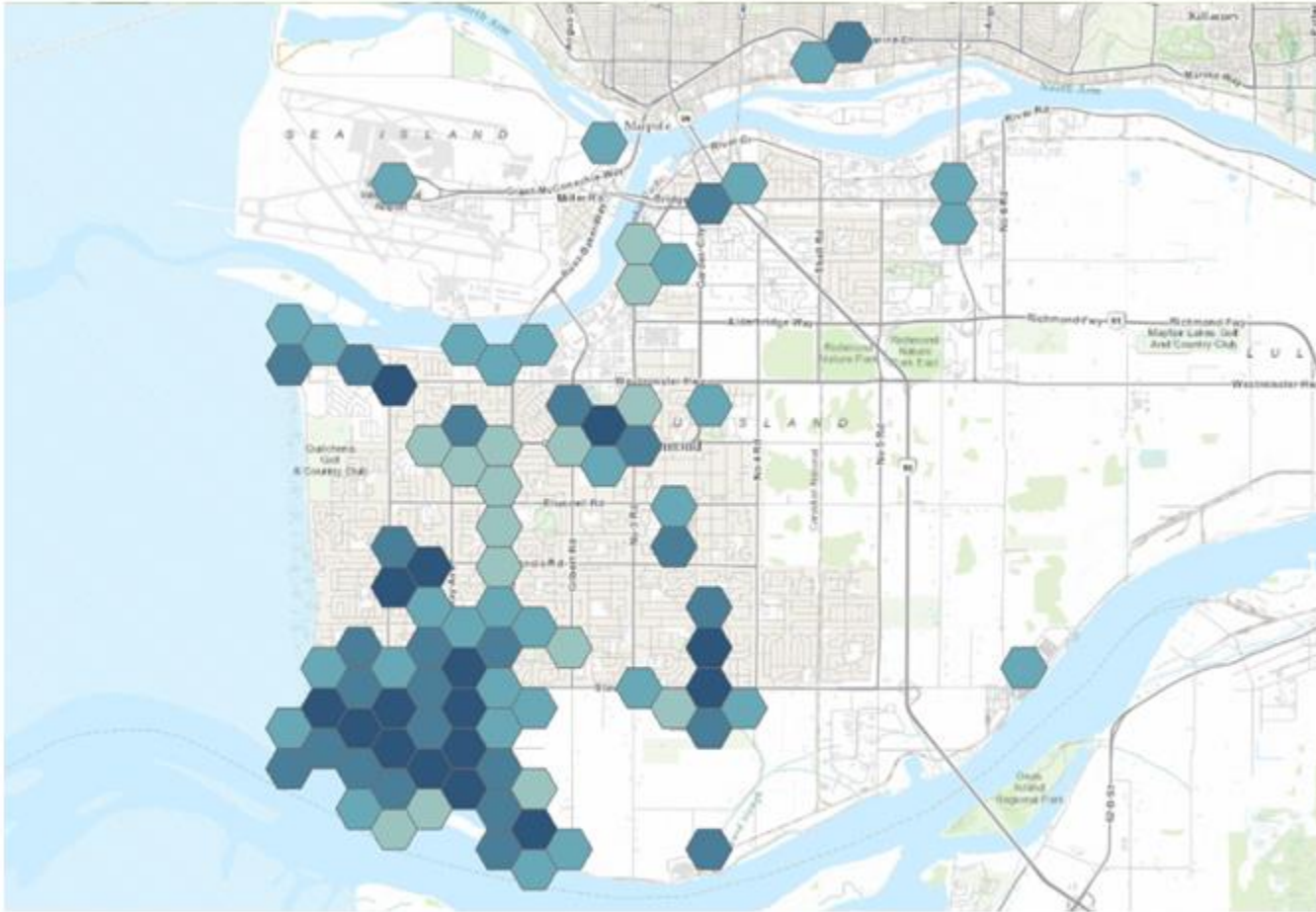|	Vancouver	North Vancouver	Richmond	p-value
All outdoor time	125.2 (105.4)	103.1 (99.2)	78.7 (77.9)	0.168
Unsupervised outdoor time	59.2 (60.5)	44.4 (48.6)	37.6 (43.2)	0.254
Supervised outdoor time	65.9 (72.4)	58.8 (85.5)	41.1 (66.2)	0.417

Supervised vs Unsupervised Outdoor Play in Richmond

Darker colour means more time spent in the area.

Supervised Outdoor Play

Unsupervised Outdoor Play

~ 3 KM

=< 10 Points =< 100 Points =< 1000 Points > 1000 Points

Areas with only 1 point suppressed for privacy

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Determinants of Playability – children's

Positive factors

- Friendly adults – eyes on the street.

- Children to play with – playmates.

- Friendly animals to play with – playmates.

- Sharable resources at the community-level (e.g., shared bikes).

- Community-based events where children can participate (e.g., Caribbean Festival, block parties).

"(R: Do you think that if there was a problem, so like if I don't know, if you or your sister were in trouble, you could go to one of your neighbours for help?) Yeah, definitely. The one that's moving out, we're actually really good friends with. Like if we don't have eggs, go to the neighbour's." (3013_1; 13-year-old girl)

"The person who owns the net lets us play and then like some people that don't even own the net's just like "stop using the net" and then like the person comes out and says "they can use the net". (3008_1; 10-year-old boy)

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Photo by 3035_1 – 11-year-old boy

Determinants of Playability – children's

Positive factors (con'd)

- Child-friendly public transit – well-connected, easy access.

- Child-friendly bike lanes.

- Outdoor recreational spaces (e.g., parks, sports fields, playgrounds, natural spaces).

- Indoor recreational spaces (e.g., community centres, indoor pools, libraries).

- Stores (e.g., convenient stores, fast-food restaurants, game stores).

"(R: Do you have any particular imaginary games that you play all the time?) Yeah, I like to play we were born in the wilderness like we're people but there's animals and stuff around here that are hurt and stuff, and I can speak to them and help them. I just love to play that, it's so fun (...) We built a fort over there but that's my favourite tree. The one over there 'cause it's called the Peace Tree. (R: Why?) 'Cause... I don't know, it just feels like a waterfall-ish kinda thing. Yeah, and you can climb up into the top branches. It's so pretty, isn't it?" **(3020_1; 10-year-old girl).**

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Photo by 3021_1 – 11-year-old girl

Determinants of Playability – children's

Negative factors

- Potentially dangerous adults (e.g., drug dealers, homeless people, strangers).
- Bullies and teens.
- Busy traffic.
- Ineffective traffic calming measures.
- Dangerous wild animals (e.g., cougars, rats).
- Unsafe crosswalks.

"And this guy was behind me and he was probably in his like late 60s and it was this year and he made a sound like this [stomps foot on ground] and I looked back to see what happened and he looked right at me so and as I started walking a bit faster and then I looked back and he was walking really fast so I just went to the school, into the school to the bathroom and yeah then I didn't ever see him again." (3003_1; 11-year-old boy).

"(R: Would that make you feel more comfortable or would it not really make a difference for you if, I don't know, there was more stop signs and speed bumps and cars had to go slower?) Yeah, I think it would make a difference.. Well, I'd feel safer because the cars are going a bit slower." (3026_1; 13-year-old girl).

Photo by 3007_1 – 10-year-old girl

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Determinants of Playability – parents'
Fears by type of crowds

- "Shady dudes"
- Pedophiles and child molesters
- Strangers
- Bad neighbours
- Bullies
- Gangs
- Peers of bad influence

"Well I, I know that she is shy around strangers, I don't know yet how she would handle someone who's maybe a stranger who's a bit more overly friendlier or something like that and how she would react. So I'm not quite sure because we haven't really had encounters with strangers like I don't know how, hopefully we've, you know, given her enough of tools and information about what to do but you just never, you know, you don't know." (3012_3; dad of a 10-year-old girl).

"I think I would like to know her friends better. I don't know her friends. I don't know who's she's hanging out. She just started high school and she's been very private about her friendships and all communication happens on the phone, so I'm not privy to it. So I think if I knew her friends, and maybe she'll feel more comfortable bringing them home and she gets to know them better, and knew the kinds of families they come from. But I don't know these kids, and I don't know what they're doing in their spare time, and I don't know how they've been raised, so yeah.. (3013_2; mom of a 13-year-old girl).

Photo by 3034_1 – 11-year-old boy

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Determinants of Playability – parents'

Parental concerns

- Physical assaults
- Sexual assaults
- Kidnapping
- Cars
- Peer pressures

"I suppose muggings, would be one thing. You know, drug-related crime, again. I think one of the biggest things is cars driving too fast around the neighbourhood. That would worry me – I suppose that would main, top ones. (R: And do you see a lot of those problems in your neighbourhood?) I see cars driving too quickly. I can't honestly say I see drug taking or things like that. I mean, and I've not seen muggings or bullying but it's always in the back of your mind, it could happen." (3006_2; mom of a 12-year-old boy).

"Other people, driving. Even when we're out and about driving ourselves, we've always told them when they get older, only trust yourself on the road. As to other people on the roads, we really have taught them to really make sure you have eye contact with drivers when you're crossing streets and intersections. There's a lot of little pockets. There's some fast drivers, even on our T of the street, so we make sure that the kids really make sure that they know when it's safe to cross, or have a visual corner to cross on, as opposed to bushes and things. Visual turns." (3021_2; mom of a 13-year-old girl).

Photo by 3021_1 – 10-year-old girl

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End of report
Playability: Richmond
Brussoni Lab
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