

Long-Term Strategies Covid-19 for Saba

September 2020

Two main strategies

1. Containment: keep virus from circulating until a vaccine or cure is found ((10)(2a) model)
 - a) Light: allow some risk of introduction, and accept semi lock-down when needed
 - b) Strict: reduce all risk of introduction to close to zero
2. Mitigation: accepting virus circulation while taking measures to protect vulnerable and not overwhelm healthcare capacity (Europe model)

Background info: disease and treatment

- Disease
 - Children mostly have no or mild disease; severe disease is possible, but extremely rare
 - Many cases (percentage unknown) have no or very mild symptoms
 - Majority have flu like symptoms, and recover without medical interventions within 1-2 weeks
 - 10-20% needs hospitalization, increasing risk with age, obesity and health problems
 - Case fatality rate estimates between 0.5 and 2.5%
- Treatment
 - Treatment of severe disease improved
 - Mortality down 1/3rd
 - ICU stay much shorter
 - Treatment Capacity (equipment and personnel) in region improved over past months, both on 

Background info: Burden Saba and vaccine

- Disease burden on Saba if virus can circulate relatively freely (not a realistic scenario):
 - 700-800 people getting infected (herd immunity will prevent further circulation after 50-60% of people have been infected)
 - 75-150 needing hospitalization, including 20-40 ICU admissions
 - 4-20 deaths
 - As Saba has above average numbers of obesity, diabetes and other chronic health problems, the above numbers are likely an underestimate.
- Vaccine:
 - many vaccines being developed. Promising results from initial phases for some.
 - Good chance there will be a safe and (temporarily) effective vaccine by first quarter 2021
 - Vaccination strategy: vaccinate high risk groups (elderly, obese, health conditions)
 - Not likely enough vaccine for all: virus will circulate for years in world.

Background info: Transmission

- Transmission
 - Methods:
 - Mostly direct by spending relevant time (>10 minutes) in the close vicinity of someone with covid, where droplet spread when patients cough, sneeze or even talk
 - Indirect infection via hands or surfaces also possible
 - Role of airborne transmission still unclear; likely possible but does not seem to be important driver of the pandemic
 - Most common infections:
 - Household contacts (10-20%)
 - Majority of infections linked to family/friend events in home settings
 - Super spreading clusters related to bars, nightclubs, gyms
 - 10-20% of cases appear to be responsible for 80% of cases, so called super spreaders.

Background info: vulnerable people Saba

•Prevalence of pre-existing health conditions

•According to health study 2018, study excluded temporary SUSOM students

- Saban residents with diabetes: approx. 130
- Saban residents with Astma or chronic lung disease: approx. 150
- Saban residents with high blood pressure approx. 500
 - heart disease: approx. 50
- Saban residents with obesity: approx. 400

•Population size of people over 65

•CBS data 2018

- Approx. 145 men
- Approx. 130 women
- Total approx. 275 elderly Saban residents

• Total risk group

- Approximately 500-550 Sabans

Containment: Main Pillars

- Border restrictions:
 - Only allow certain groups
 - 1a: residents, med. students, essential workers, long-stay people
 - 2a: 1a plus allow tourism under certain conditions, e.g.
 - shorter Q with extra tests and hygiene measures
 - Quarantine incoming travelers
 - At home and/or central
 - Optional test at end of quarantine
 - Partly exceptions for short term essential workers under strict hygiene measures
 - Test before arrival; Q outside of workhours; no/limited interactions during work; med. Spec: masks for md and pat.
 - Hygiene measures at Points-of-Entry
 - Screening + masks + physical distancing

Containment: Main Pillars

- If virus introduced:
 - Strong measures to 'flush out' virus: Level 3 or 4
 - (semi-) lockdown
 - Schools closed
 - Curfews
 - Hospitality closed
 - Aggressive Contact tracing, testing and quarantining.
 - Local testing capacity operational

Containment: pros

- Pros:
 - Relatively normal life on Saba
 - Schools and work are open as normal
 - No limits on interactions and physical contact
 - Covid Disease burden expected to remain low
 - Healthcare (public and curative) not overwhelmed

Containment: Cons (and potential mitigators)

- Impact on Economy: mostly hospitality, rentals and retail
 - Mit: support package national government
 - Mit: encourage med. Students and long-stay to come to Saba
- Impact on specialist healthcare: elective healthcare postponed or delayed through changing referral places, potential quarantine upon return, and risk of infection during referral
 - Mit: Video consultations where possible
 - Mit: Visiting medical specialists
 - Mit: ZVK bubble to limit interactions during referral
 - Limit risk of infection
 - Exempt quarantine

Containment: Cons (and potential mitigators)

- Island fever (and effect on mental health)
 - Mit: allowing some travel by residents (with quarantine upon return)
 - Mit: stimulating on-island events
- Risk: **No or delayed vaccine availability**
- Risk: Multiple (semi-) lockdowns

Mitigation: main pillars

- Open borders without Q. Option: reduce risk of introduction by
 - Allow only travelers from certain areas
 - Testing:
 - Require negative test before arrival
 - Option to test again on day 4-6 and/or 10-12
 - Alternative: Shorter Q plus test (French model)
- On-island measures to limit circulation/keep $R_0 \approx 1$
 - No large events or gatherings
 - Outside hospitality only (with hygiene measures)
 - Wearing of masks in busy locations
 - School closures if needed
 - Working from home
 - Limit sports activities

Mitigation: main pillars

- Protect vulnerables
 - Limited visiting hours BFS and limited Saba life centre
 - Teleclinics at clinic
 - Provide masks for vulnerables
 - Limit visits to elderly
 - Cave: many vulnerables on Saba in work force

Mitigation: pros

- (Semi-) free movement of people
 - Hospitality sector open
 - Easier ZVK referrals: less health damage from other health problems
 - Less island fever
- After some time, community acceptance of virus circulation and possibly less panic/stress

Mitigation: Cons

- Disease burden of Covid potentially high
 - Mit: treatment capacity in region improved
 - Mit: treatment guidelines have decreased mortality 1/3rd
 - Mit: measures to protect vulnerable Sabans
 - Mit: measures on-island could keep R0 close to 1.
- Living in a Covid-19 society: no gatherings, mask requirement, no or adapted school and churches, no physical contact, no or adapted sports, no or adapted restaurants and bars
 - Mit: learn from other areas what activities can continue safely?

Mitigation: Cons

- Risk: no or little tourism, so economic impact of opening up minimal
- Risk: herd-immunity not quickly achieved

Measures and R0

Measure	Modeled Effect on R0	full lockdown	R0	intelligent lockdown	R0	Regular life w/ new social norms	R0
No measures	0		2.5		2.5		2.5
Finding and Isolating patients	0.84	yes	2.1	yes	2.1	yes	2.1
Contact tracing and quarantine (est. down from 51% to 35%)	0.65	yes	1.365	yes	1.365	yes	1.365
People with respiratory symptoms stay home	0.86	yes	1.1739	yes	1.1739	yes	1.174
Hand & cough hygiene	0.85	yes	0.997815	yes	0.997815	yes	0.998
Disinfect surfaces	0.98	yes	0.977859	yes	0.977859	yes	0.978
No handshakes	0.94	yes	0.919187	yes	0.919187	yes	0.919
Keeping 2 meter distance	0.94	yes	0.864036	yes	0.864036	yes	0.864
No social interactions outside household	0.85	yes	0.734431	no		no	
No meetings >10 people	0.94	yes	0.690365	yes	0.812194	yes	0.812
<u>Close restaurants and bars</u>	0.89	yes	0.614425	yes	0.722852	no	
Close joint sports	0.94	yes	0.577559	no		no	
<u>Work from home/close non- essential work</u>	0.86	yes	0.496701	yes	0.621653	no	
<u>Close daycare</u>	0.95	yes	0.471866	yes	0.59057	no	
<u>Close primary school</u>	0.95	yes	0.448273	yes	0.561042	no	
<u>Close high school</u>	0.95	yes	0.425859	yes	0.53299	no	
<u>Close church</u>	0.98	yes	0.417342	yes	0.52233	no	
Essential business, delivery only?	0.94	yes	0.392301	no		no	
total estimated R0			0.4		0.52		0.8
total reduction			-84%		-80%		-68%

NB

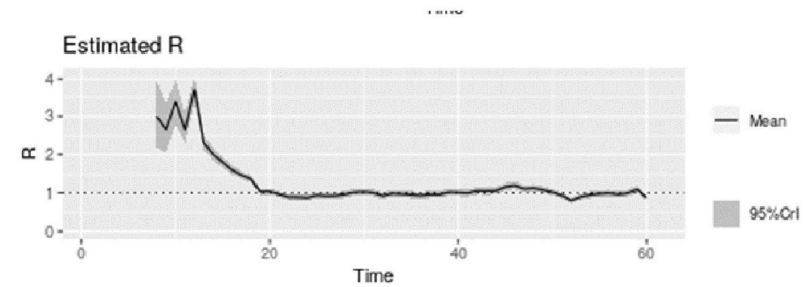
-Effects masks?

-old data; no new effects based
on actual pandemic

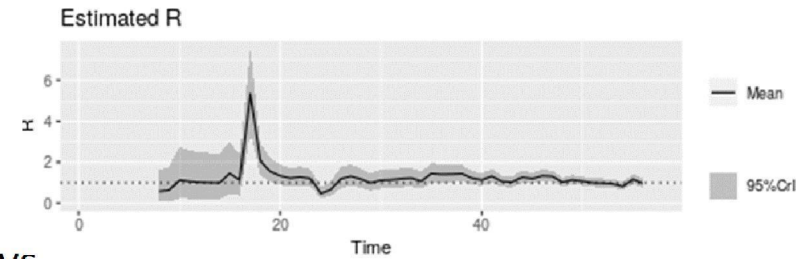
-model vs reality
(Bonaire/Aruba/SXM)

Aruba

- 517/100.000 incidence per 14 days
- >30 deaths
- ICU full; elective care scaled down
- Measures:
 - Borders open
 - Masks indoor public areas
 - Schools open (big pressure to close)
 - Bars/nightlife closed
 - Restaurants measures
 - Max groups of 4
 - Curfew after 10pm



Curacao



- 101/100.000 incidence per 14 days
- Healthcare fully open, few COVID-19 admissions, 1 death
- Measures
 - Q for many countries (NL open)
 - Schools open (but big pressure to close)
 - Masks recommended in public
 - Aggressive (labor intensive) contact tracing and testing
 - No home parties
 - Bars/restaurants open

SXM

- Uncertainty around R_0
- 248/100.000 incidence per 14 days
- 22 deaths; few hospitalizations
- Elective care not compromised
- Measures:
 - Borders open
 - Masks in public places
 - Schools closed
 - Bars/restaurants open
 - Gatherings?

