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 ([redacted] 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 [redacted] (10)(2a)

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 patinets 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 struct 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 R0 ≈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

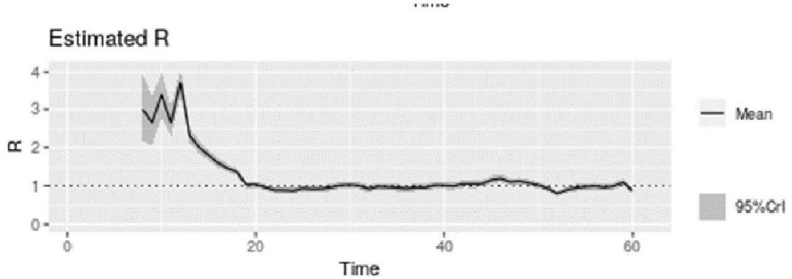
Measures and R0

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
Close restaurants and bars	0.89	yes	0.614425	yes	0.722852	no	
Close joint sports	0.94	yes	0.577559	no		no	
Work from home/close non- essential work	0.86	yes	0.496701	yes	0.621653	no	
Close daycare	0.95	yes	0.471866	yes	0.59057	no	
Close primary school	0.95	yes	0.448273	yes	0.561042	no	
Close high school	0.95	yes	0.425859	yes	0.53299	no	
Close church	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%

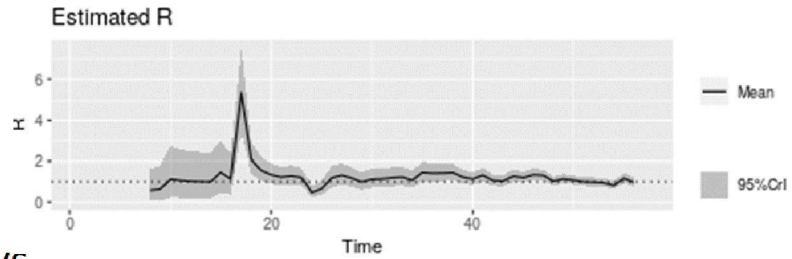
NB
-Effects masks?
-old data; no new effects based on actual pandemic
-model vs reality (Bonaire/Aruba/SXM)

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

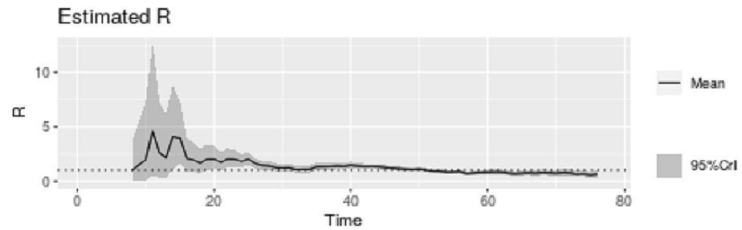


Curacao



- 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 R0
- 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?