

Long-term Outcome of Children with COVID-19 and Treatment Evaluation in Indonesia (Locate)

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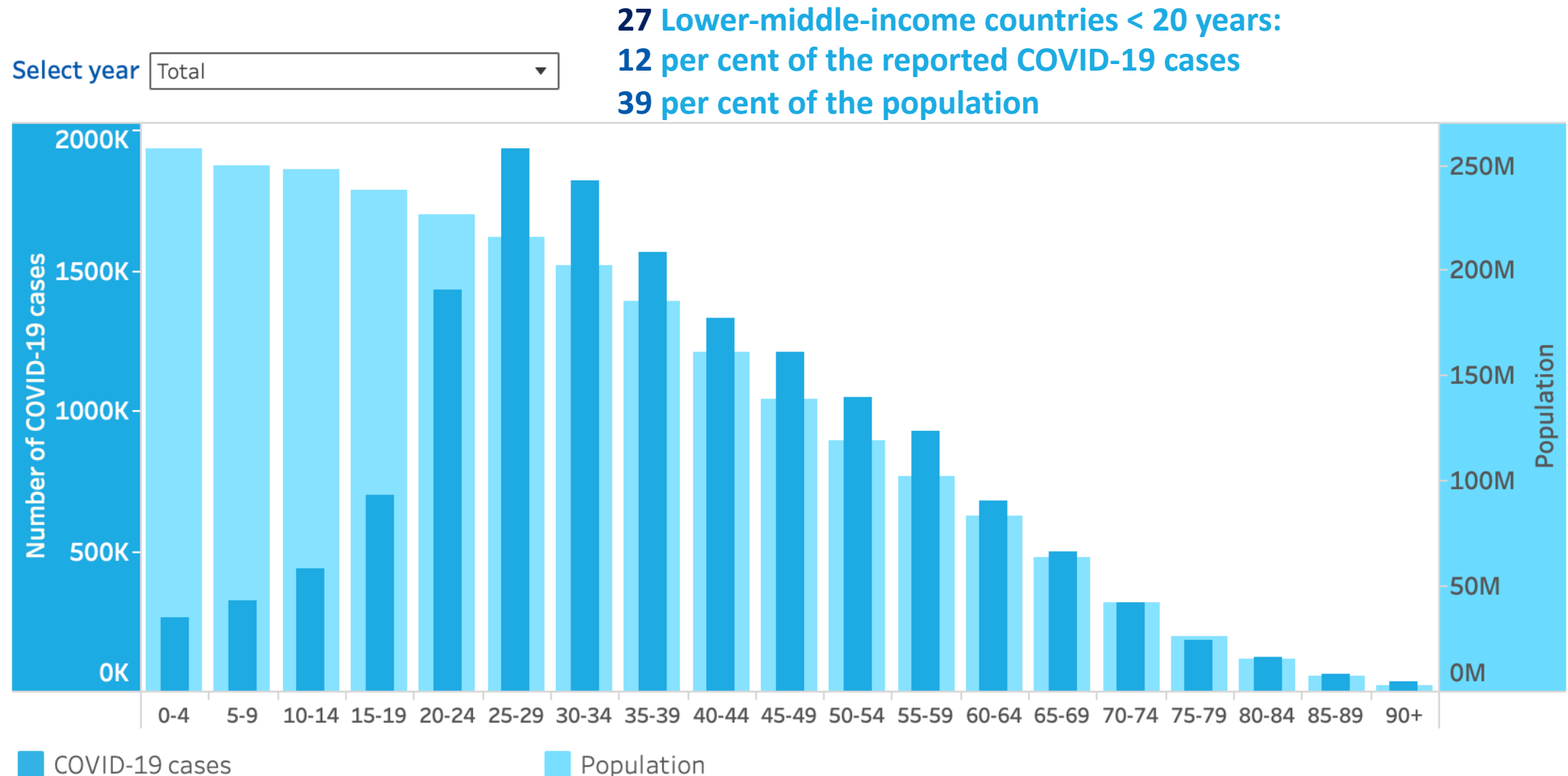
Pediatric Infectious Disease

Faculty of Medicine Universitas Indonesia, Cipto Mangunkusumo Hospital

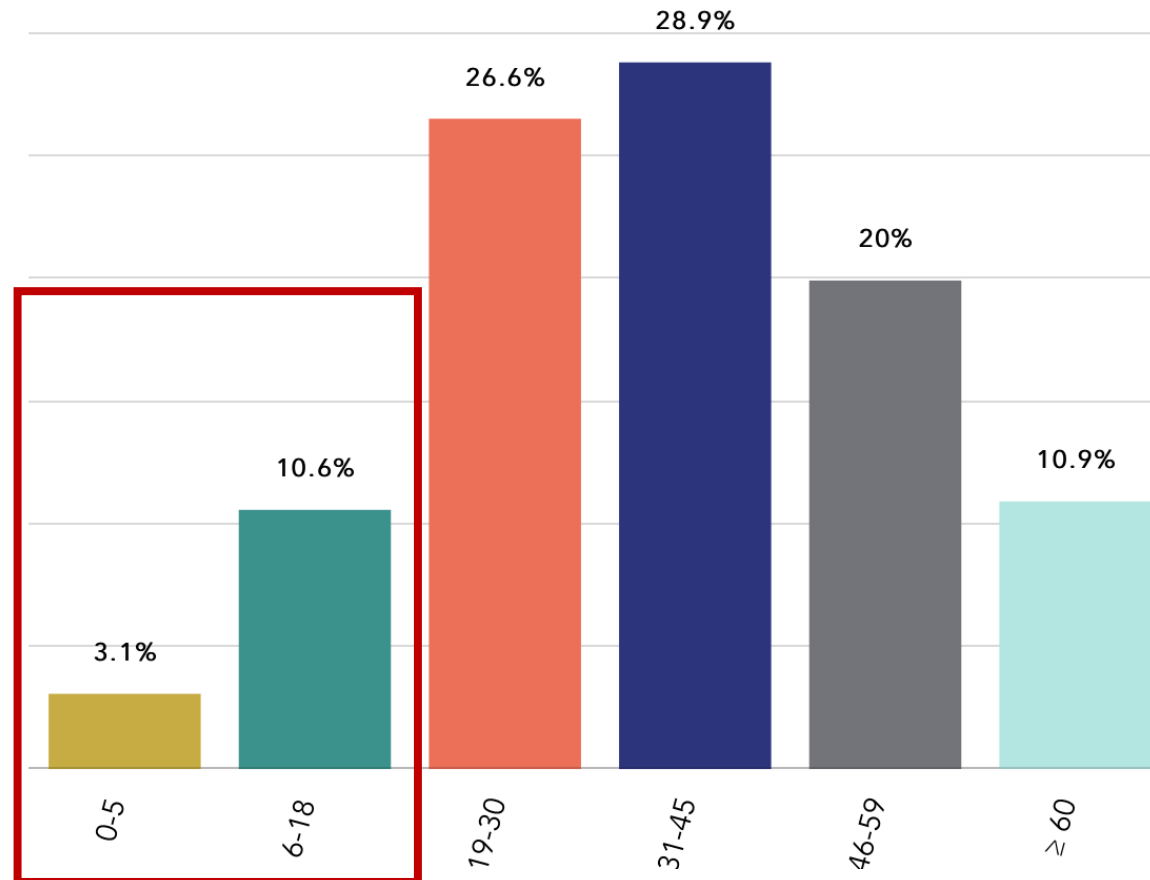
Locate Research collaboration of UI-UGM-UNAIR-UoM

Funded by PRIME LPDP

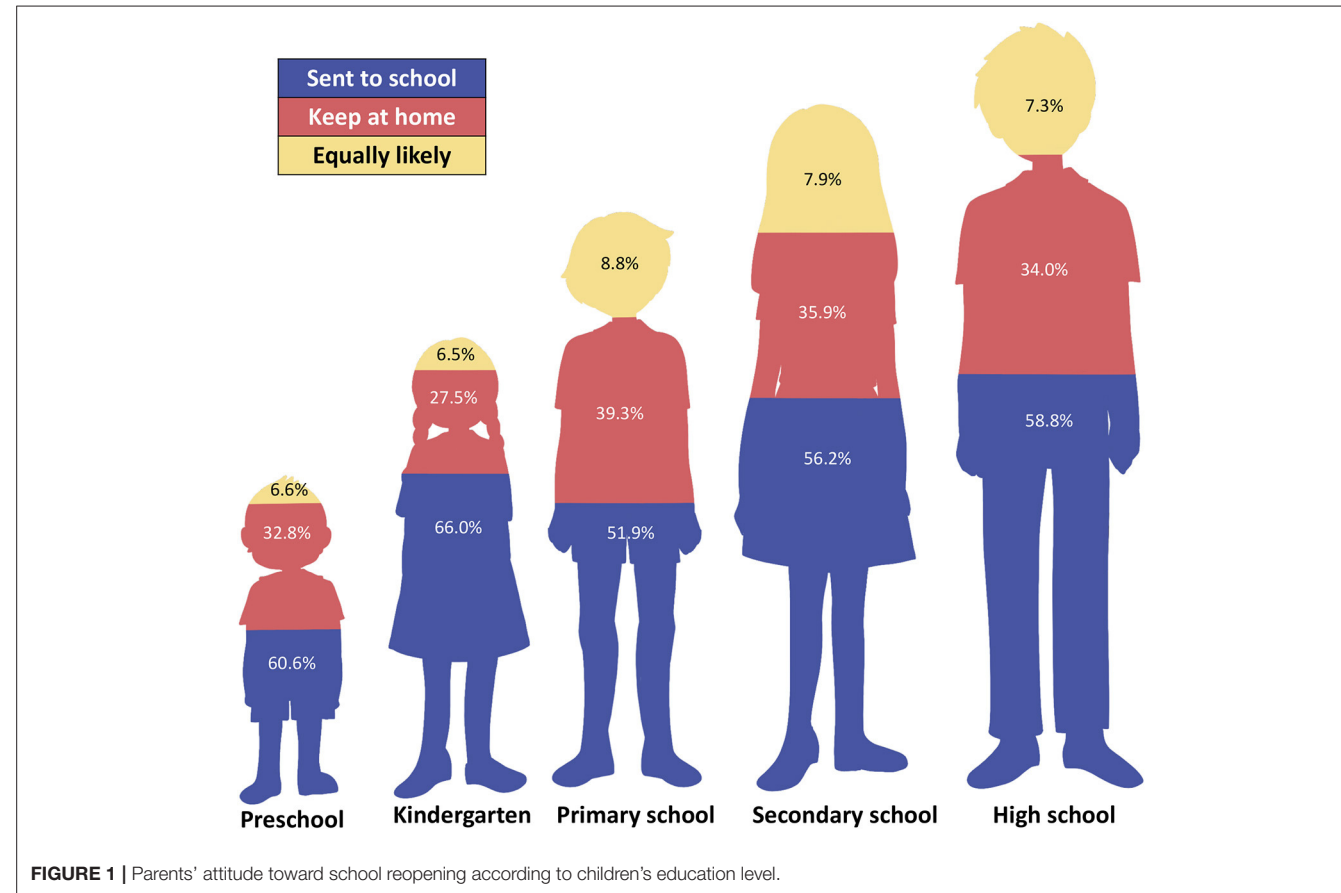
Data in Children - LMICs



Data in Children - Indonesia



Indonesian Pediatric Society Survey



Background



- Meta-analysis of long-term outcome of SARS & MERS: 28 studies, lung function abnormalities, psychological impairment and reduced exercise capacity

Ahmed H, et al. J Rehabil Med. 2020 May 31;52(5):jrm00063.

- Systematic review of long COVID-19 in children: 21 studies, none from LMICs, prevalence of long COVID-19 25.24%

Lopez-Leon S, et al. Sci Rep. 2022 Jun 23;12(1):9950

- **Unknown** long-term outcomes of COVID-19 in children, daily observation in clinical settings, we see "suspected long COVID-19 or linked to post COVID-19" but hardly to define

Background



- COVID-19 is a **complex multisystemic disease**; several organ dysfunctions?, affect the growth and development? and mental health issues?
- Retinal complications may arise in COVID-19 patients, further follow up needed

Abdolrahimzadeh S., et al.. Int Ophthalmol. 2022 May 11:1–10. doi: 10.1007/s10792-022-02338-x.; Wang S, et al. Immun Inflamm Dis. 2022 Jun;10(6):e619.; Cennamo G, et al. Am J Ophthalmol. 2021 Jul;227:182-190

- Nervous system involvement could be isolated, developing during COVID-19 or after its recovery, or arise in the context of a MIS-C

Siracusa L, et al. Ital J Pediatr. 2021 Jun 2;47(1):123. Stower H. Nat Med. 2021 Jan 28; Govil-Dalela T, Sivaswamy L. Pediatr Clin North Am. 2021 Oct;68(5):1081-1091.

- Pulmonary function is rarely impaired, discrepancy between persisting respiratory symptoms and normal pulmonary function

Knoke L, et al. Front Pediatr. 2022 Apr 25;10:851008. Di Chiara C, et al. Children (Basel). 2022 Jun 25;9(7):952.

Objectives



To systematically describe the long-term outcomes of children after COVID-19 in Indonesia, which include:

- Two-years survival rate
- The incidence and presentations of MIS-C
- The prevalence and type of comorbidities
- The incidence rate and clinical presentations of SARS-CoV-2 reinfection
- The level of specific SARS-COV-2 antibodies at 0-6 months, 6 months, 12 months, 18 months, and 24 months after COVID-19
- The occurrence, characteristics and associated features (including immunological) of “long COVID-19” in children
- The impact of COVID on the child’s health over two years following initial presentation with COVID-19:

growth and development, mental health, lung function, cardiovascular function, renal function, microvascular disease, or endocrine problems

Methods

- Multicenter prospective study – Jakarta, Yogyakarta, Surabaya
- 2 years follow up of 200 children prospectively
- Retrospectively using questionnaire
- Dr Cipto Mangunkusumo National Center Hospital, Cempaka PHC, Senen PHC, Dr Sardjito General Hospital, Gadjah Mada University Academic Hospital, PKU Muhammadiyah Hospital, Dr Soetomo General Hospital, and Airlangga University Hospital

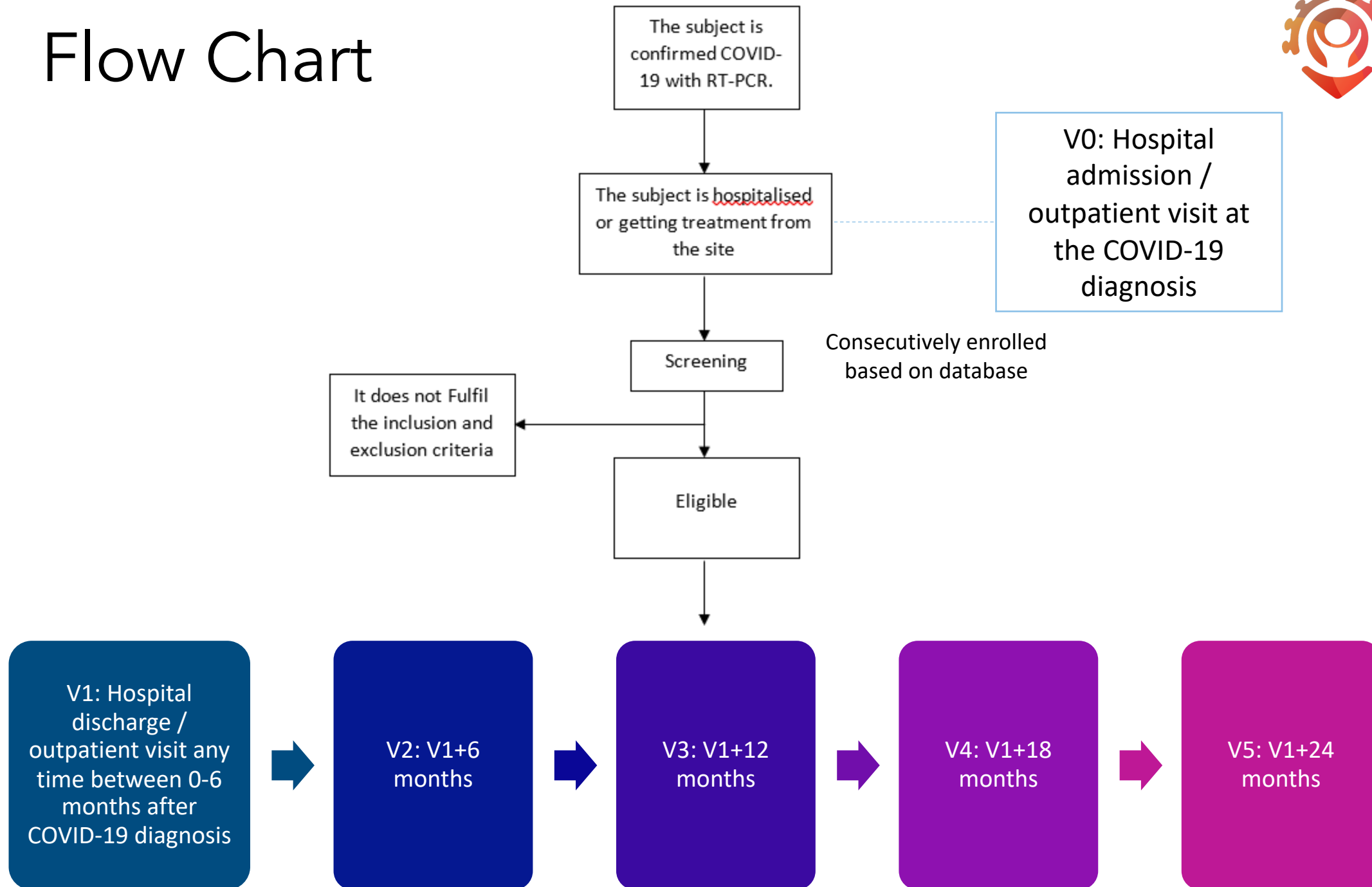


Methods - Prosepective



- Inclusion for case group:
 - Children < 18 years of ages
 - Previous history of SARS-COV-2 infection
 - Asymptomatic to severe COVID-19
- Exclusion for case group:
 - The subject has comorbidities with palliative care or end stage
- Control group (challenging):
 - *Healthy children*
 - *Without history of COVID-19*
 - *Will be recruited at the end of study*

Flow Chart

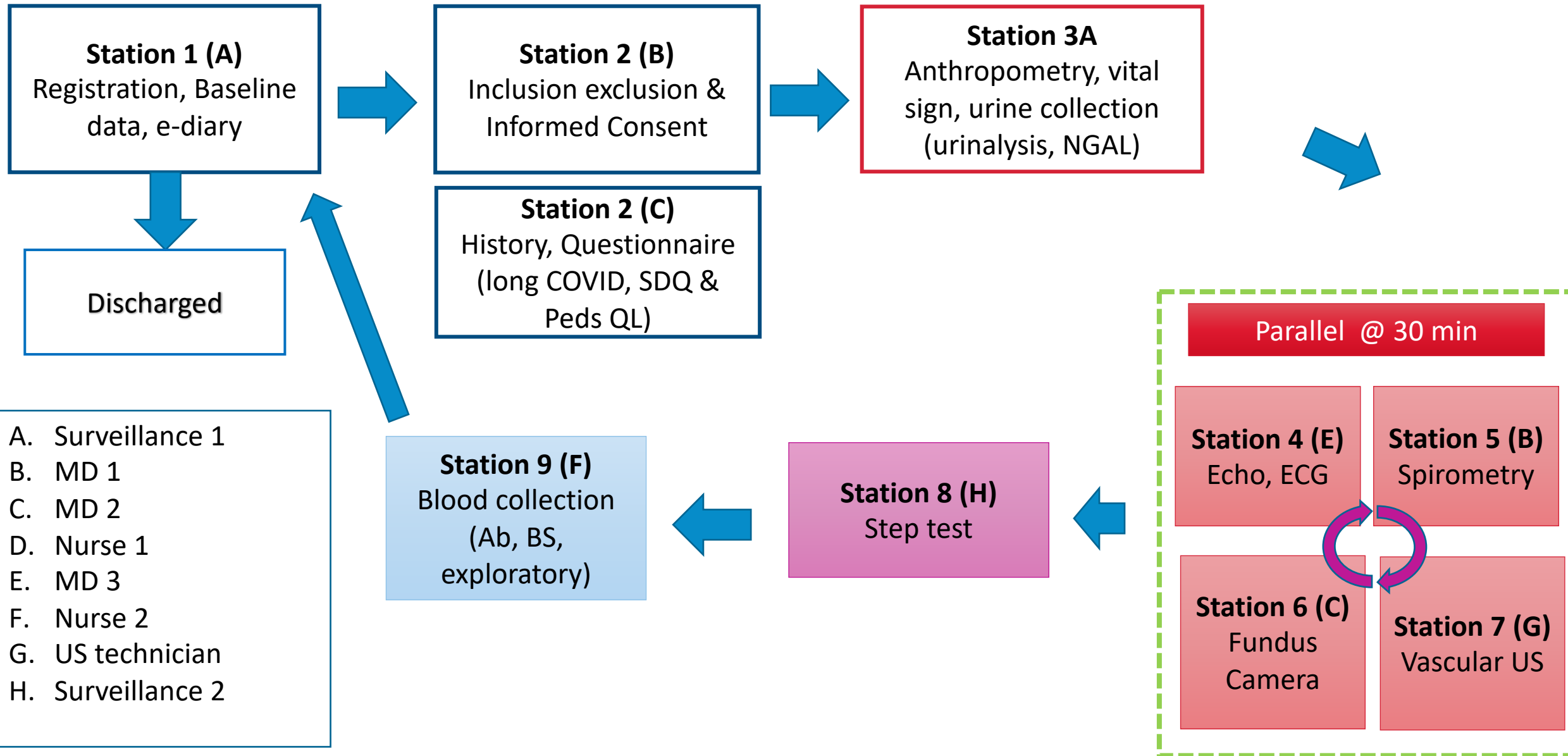


Study Procedures

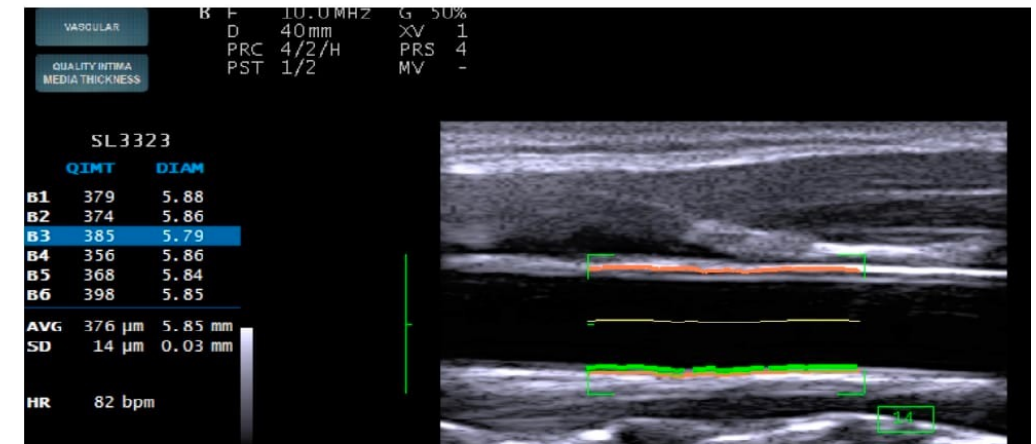
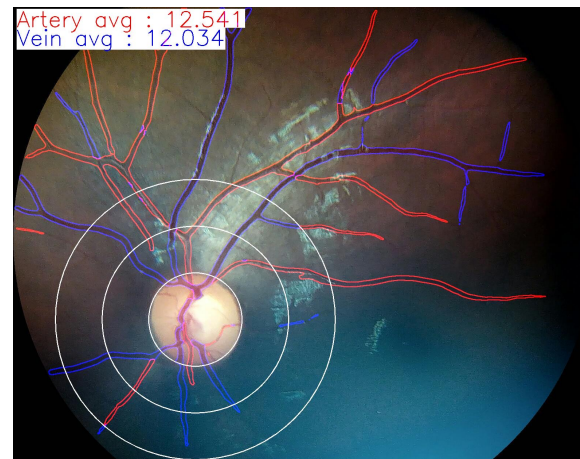
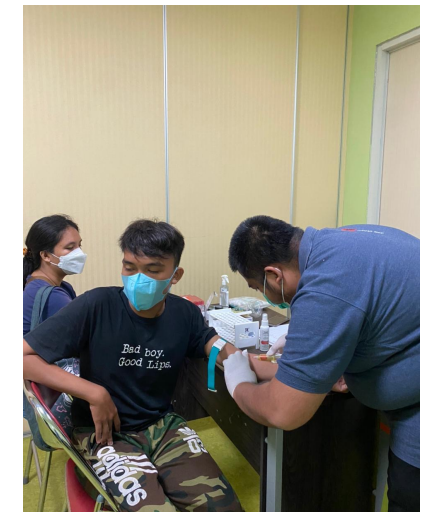
Visit Flow Chart						
Visit	<u>V0</u>	<u>V1</u>	V2	V3	V4	V5
Visit time (month)	<u>M0</u>	<u>M0 (+6)</u>	V1+6	V1+12	V1+18	V1+24
Informed Consent		•				
Demographic Information		•				
Height, Weight, and Head Circumference	•	•	•	•	•	•
Medical History	•	•				
Vital sign	•	•	•	•	•	•
Evaluation of Symptoms	•	•	•	•	•	•
Antibody of SARS-CoV-2		•	•	•	•	•
Cardiovascular Function		•	•	•	•	•
Respiratory Function		•	•	•	•	•
Renal Function		•	•	•	•	•
Microvascular Function		•	•	•	•	•
Neurological Function		•	•	•	•	•
Growth and Development		•	•	•	•	•
Endocrine Function		•	•	•	•	•
Mental Health		•	•	•	•	•
Treatment Evaluation		•	•	•	•	

Weekly phone call follow up

Visit Procedures



Study Procedures



Website & Social Media

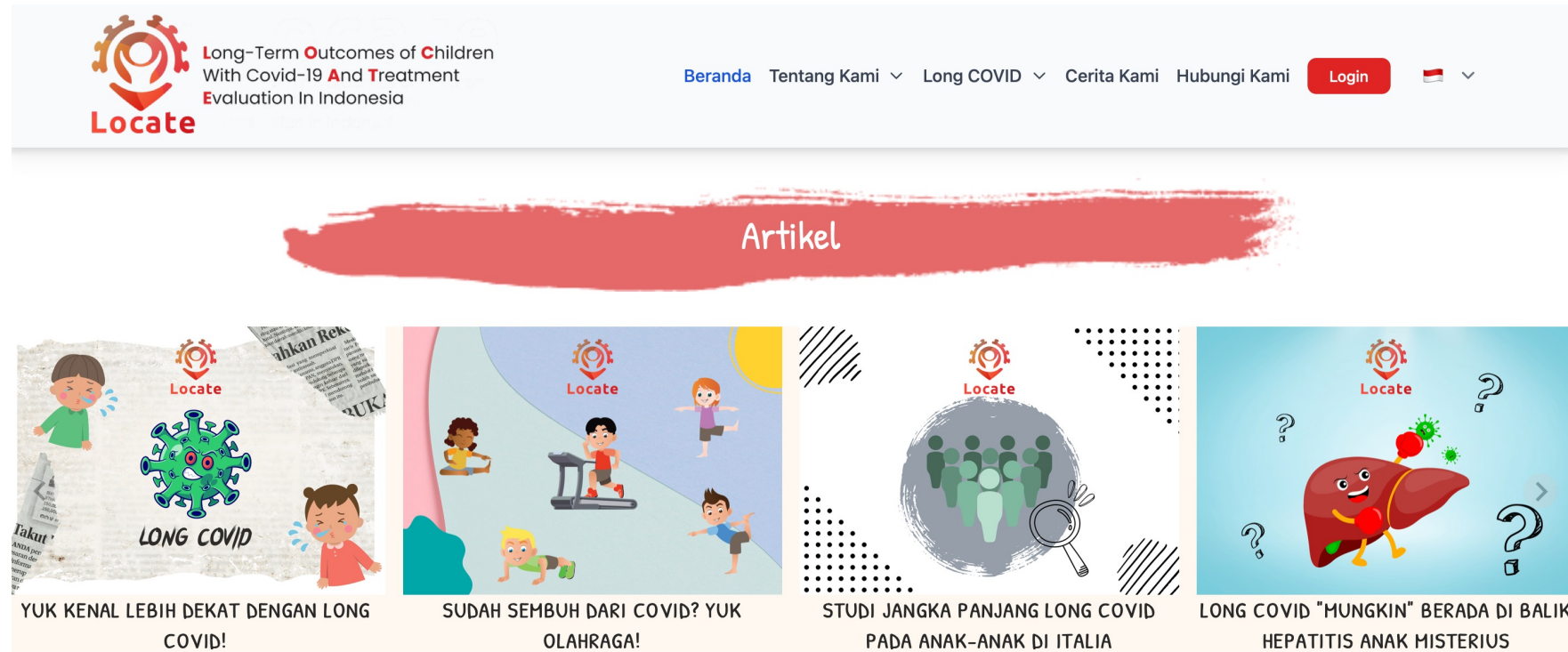


< locateindonesia



@locateindonesia

<https://www.locatelongcovid.id>



Kristen E. Lukersmith, MSc, PhD

Diary Card

LOCATE Long COVID Customize 2 0 + New Edit Page WPForms 4 Howdy, Locate Administrator

BERANDA TENTANG KAMI LONG COVID E-DIARY CARD HUBUNGI KAMI

Locate eDiary Card
Long-Term Outcomes of Children
With Covid-19 And Treatment
Evaluation In Indonesia

Tanggal
13-06-2022
Date

Apakah anak mengalami gejala? *

☐ Ya ☐ Tidak

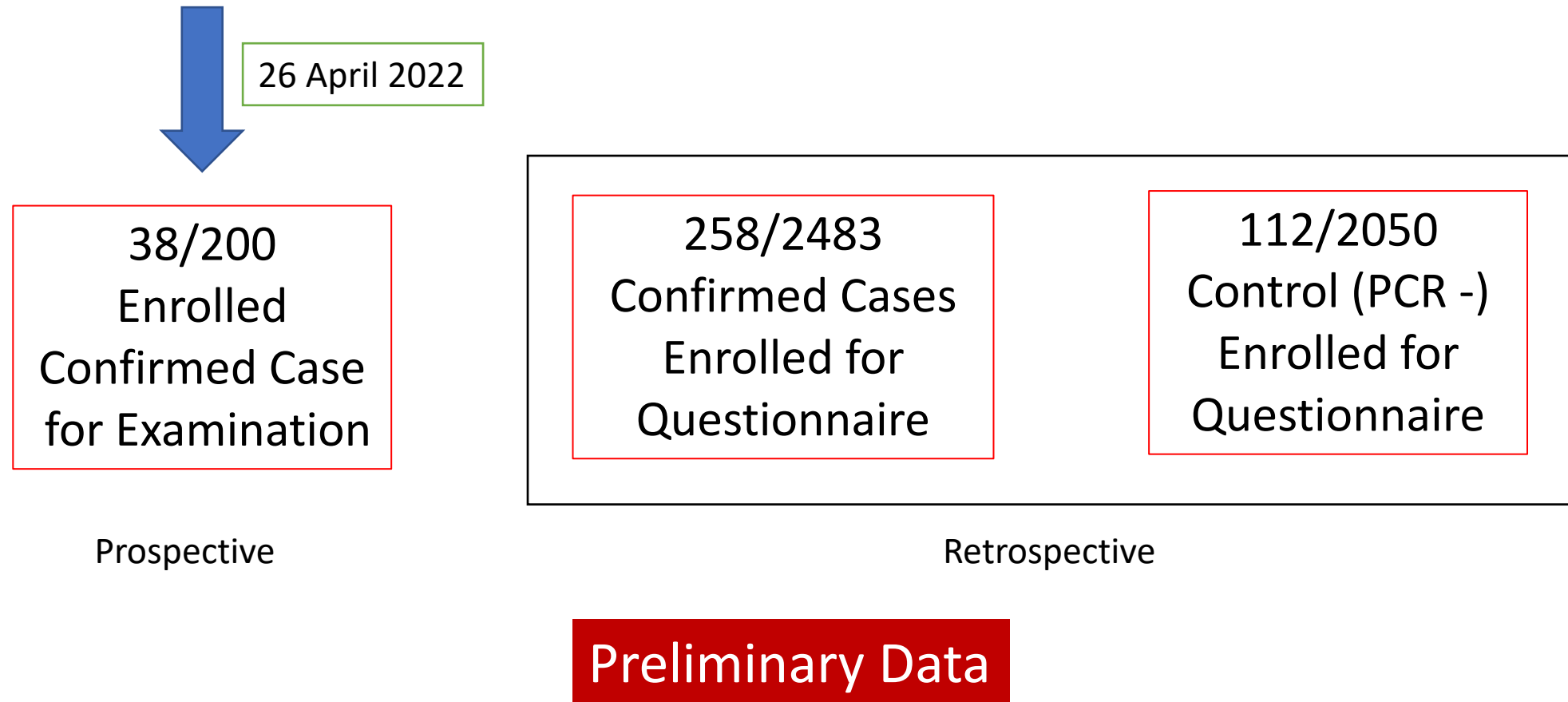
Gejala yang dirasakan: *

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<input type="checkbox"/> Mual atau muntah	<input type="checkbox"/> Nyeri perut
<input type="checkbox"/> Anosmia	<input type="checkbox"/> Kejang
<input type="checkbox"/> Gangguan penglihatan	<input type="checkbox"/> Nyeri kepala
<input type="checkbox"/> Ruam	<input type="checkbox"/> Rambut rontok
<input type="checkbox"/> Nyeri otot	<input type="checkbox"/> Nyeri sendi
<input type="checkbox"/> Kelelahan	<input type="checkbox"/> Gigi tanggal
<input type="checkbox"/> Penurunan kesadaran	<input type="checkbox"/> Lainnya

Suhu (C) *
ex: 23

Obat yang dikonsumsi

Current Stage of the Study



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- Hikari A Sjakti



Terima Kasih - Thank You



Locate

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