Long COVID's Impact on Patients, Workers & Society

Webinar Nov. 1st, 2023

https://healthconference.org

USA Health Watch

LONG COVID GREECE

"Long Covid : A paediatrician's view as a patient and a doctor"

Eleni Iasonidou, MD

Founder of Long Covid Greece

Representative of Greece Long Covid Kids

Infections

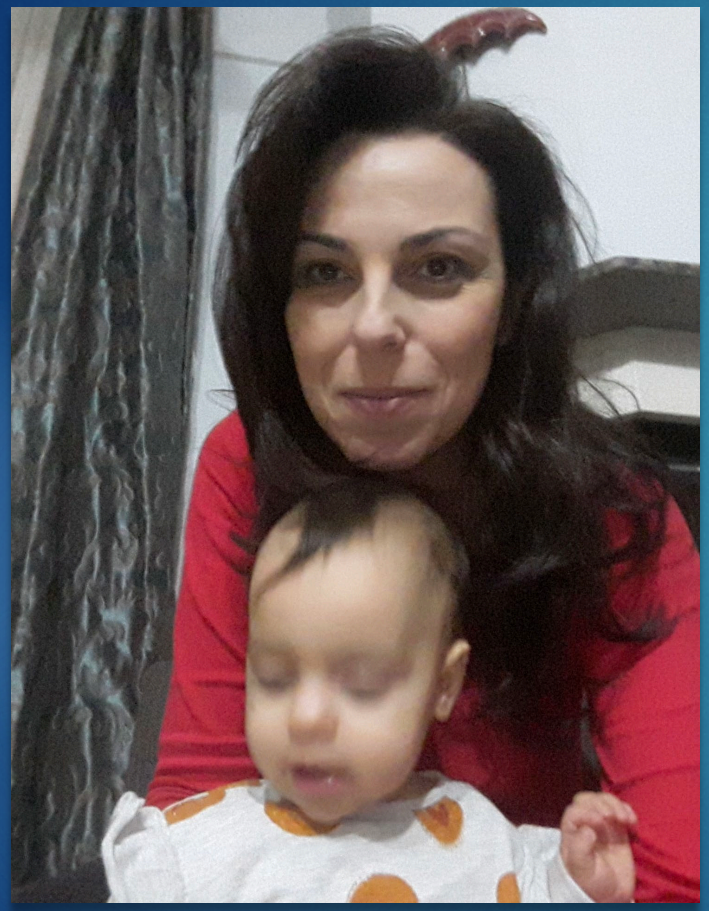
- Confirmed SARS COV2 infections
  - 0ctober 2020 (PCR)
  - June 2022 (Rapid test Ag)
- Not confirmed
  - May 2023 (daughter positive)

- Shingles 2021

Current problems

- Dysautonomia
- Cognitive deficits (brain fog)
- Fatigue
- Muscle weakness
- Exercise intolerance
- Dyspnonia
- Allergic conjunctivitis of unknown origin (since summer 2021)
- Hair loss (2nd time since last infection)
- Rashes

Pre covid



Post covid

Neuropsychological evaluation November 2021

- Focus and attention
  - Severe decline in vigilance, focused and sustained attention
  - Severe decline in motor response speed
  - Inability to sustain a steady internal rhythm
- Visual perception and processing
  - Difficulties in visual attention
  - Decline in processing speed information
  - Severe decline in motor response to visual stimuli
- Difficulties in ability to organize-prioritize
- Difficulties in goal-directed behavior

Conclusions and recommendations

Post covid cognitive consequences

- Severe deficits in sustained concertation and attention
- Severe decline in speed processing information
- Severe decline in response speed and project completion

Impact

- Significant impact on daily functionality both on personal and professional level
- Daily difficulties and deviation from previous level of functionality

To address the cognitive fatigue, she needs to adjust her daily routine, and to restrict the number and intensity of activities

Recommendations

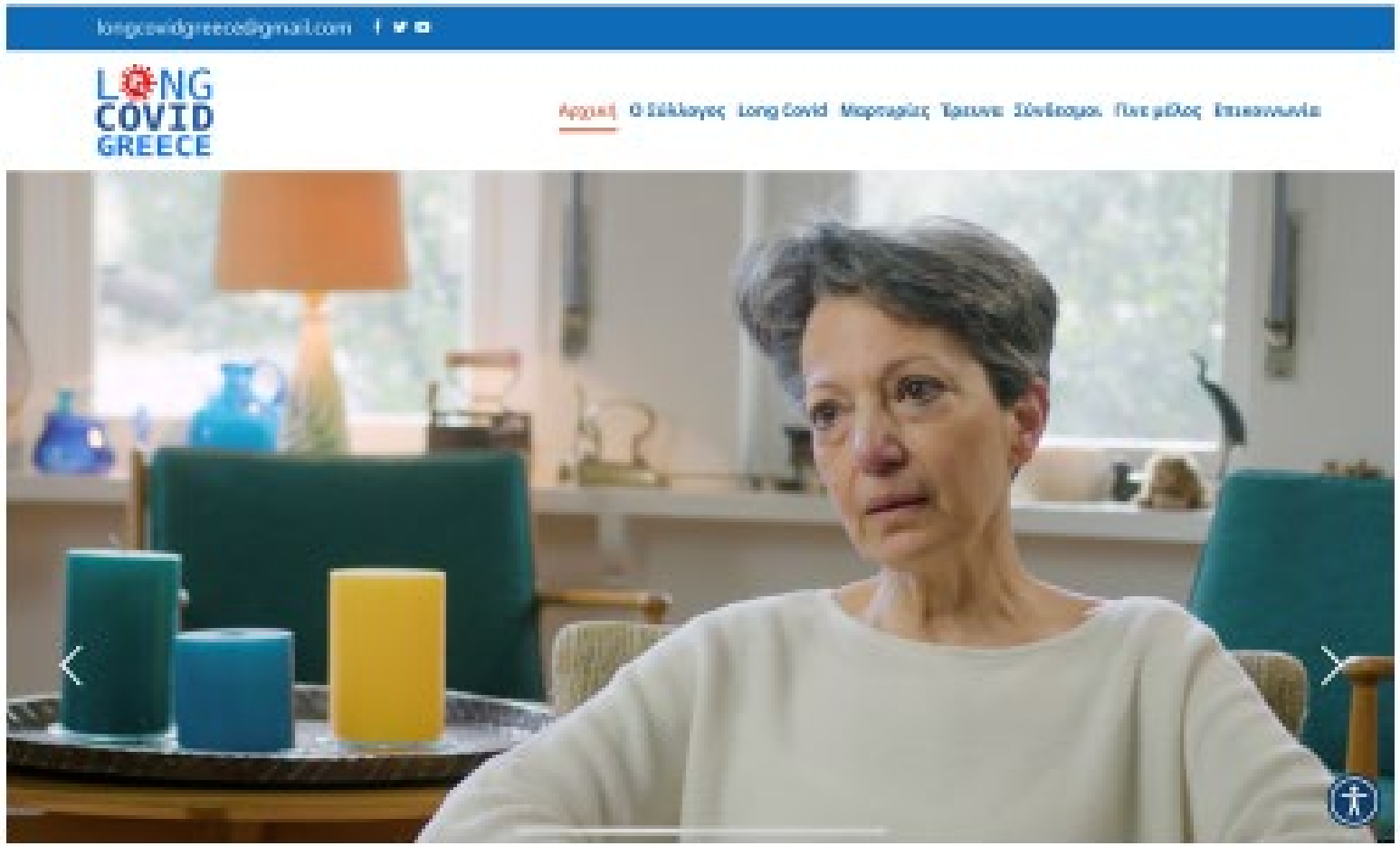
- Rehabilitation to improve focus and attention, processing speed and project completion
- Management of cognitive fatigue and compensatory strategies
- Counselling

LONG COVID GREECE

- March 2021, FB group Facebook Long Covid ελληνική ομάδα υποστήριξης
- May 2021, Long Covid Europe (19 European countries)
- WHO- official partner
- September 2021, twitter account @LCKGreece Long Covid Kids(CDC)
- November 2021, PC-COS WHO meeting
- December 2021, legal formation of patient association Long Covid Greece
- Cooperation with Hellenic Chest Diseases Society
- Meetings with scientific societies, universities and hospitals
- Meetings with ministry of health, ministry of labour
- Cooperation with National Public Health Association (ΕΟΔΥ- request forICD10)
- Development of webpage, TV spots for long Covid
- Research, publication of papers regarding long Covid
- Cooperation with Long Covid Cyprus

Τα συμπτώματα long Covid
είναι διαφορετικά
από άνθρωπο σε άνθρωπο

Μάθε περισσότερα στο
www.longcovidgreece.gr



Journal of Personalized Medicine

MDPI

Article

The Greek Collaborative Long Covid Study: Non-hospitalized and hospitalized patients share similar symptom patterns

Martha-Spyridoula Katsarou[1,2,5], Eleni Iasonidou[2], Alexander Osarogue[3], Efthymios Kalafatis[2], Maria Stefanatou4,5 Sofia Pappa[6], Stylianos Gatzonis[4,5], Anastasia Verentzioti[4,5], Pantelis Gounopoulos[7], Christos Demponeras[9], Eleni Konstantinidou[7], Drakoulis Nikolaos[1,5], Andreas Asimakos[5,8], Archontoula Antonoglou[5], Aspasia Mavronasou[5,8,10], Stavroula Spetsioti[5,8], Anastasia –Kotanidou[5,8], and Paraskevi Katsaounou [5,8,*]

Dr Martha-Spyridoula Katsarou Research group of clinical Pharmacology and Parmacofenomics, Faculty of Pharmacy, School of Health Sciences, National and Kapodistrian University of Athens. Member of administrative comitte Long Vovid Greece

LONG COVID GREECE

FACEBOOK
LONG COVID- GREEK SUPPORTING GROUP

3 MONTHS PERIOD (JANOUARY 2021)
~600 MEMBERS

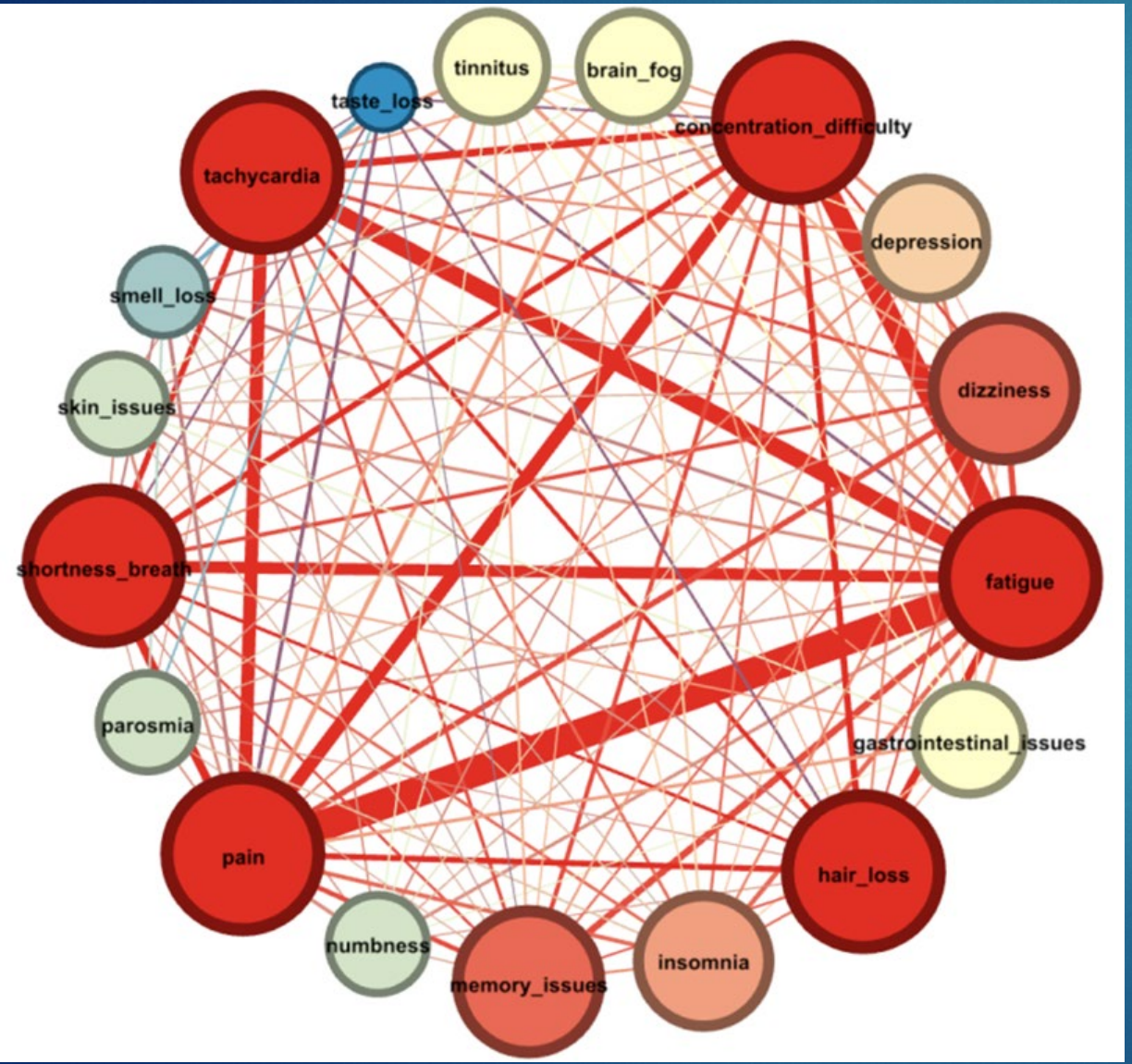
ALL MEMBERS WERE INVITED TO FULLFIL AN ANONYMIZED QUESTIONNAIRE ON GOOGLE FORMS

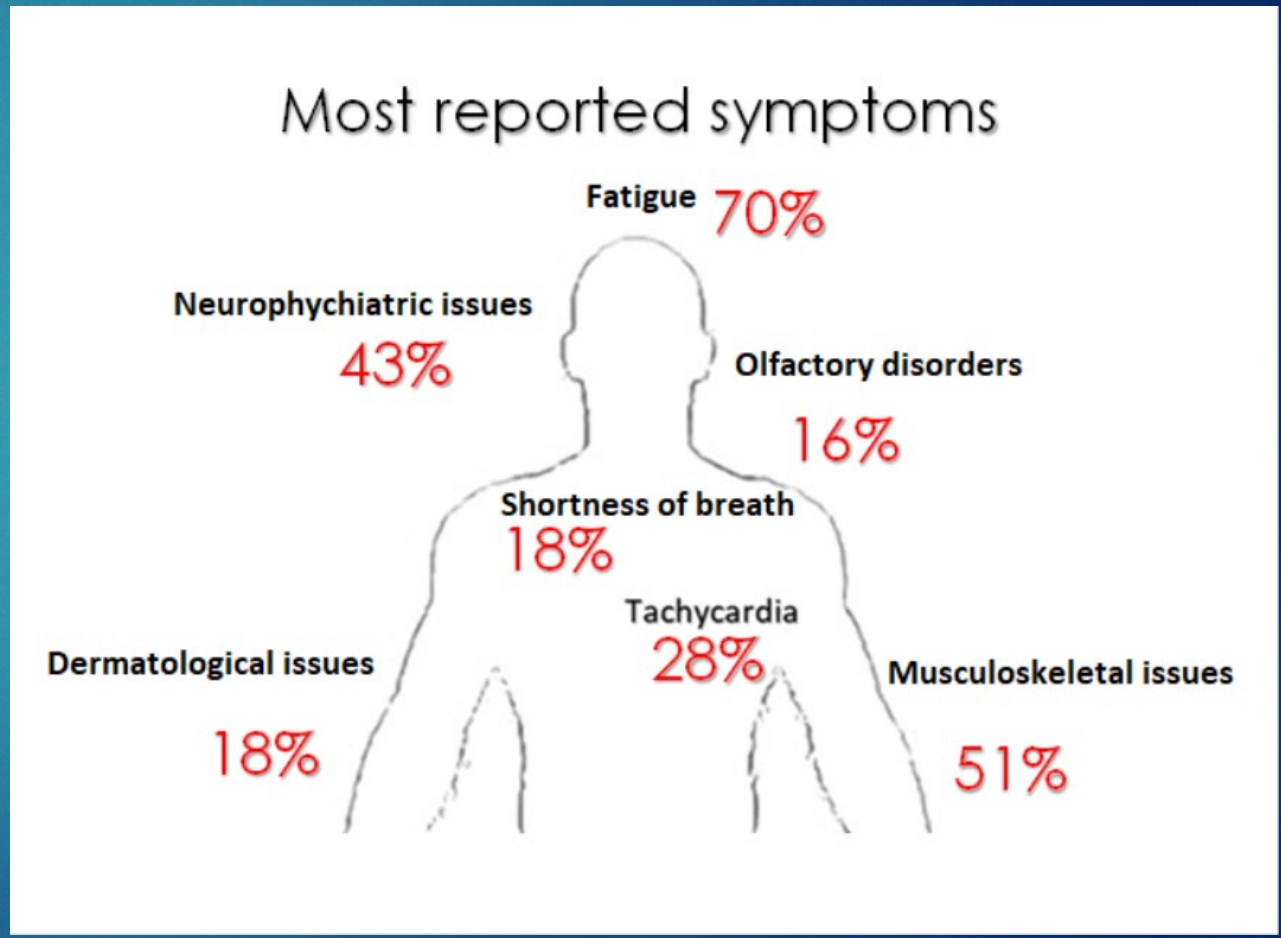
209 RESPONDED
(ONE EXCLUDED)

208 ANSWERED

161 female	46 male

FB Study among group members
Long Covid Greek support group



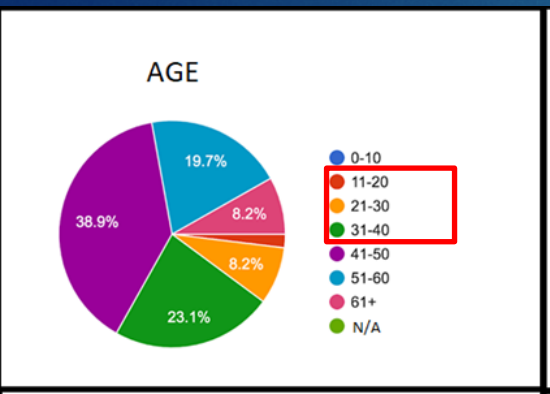


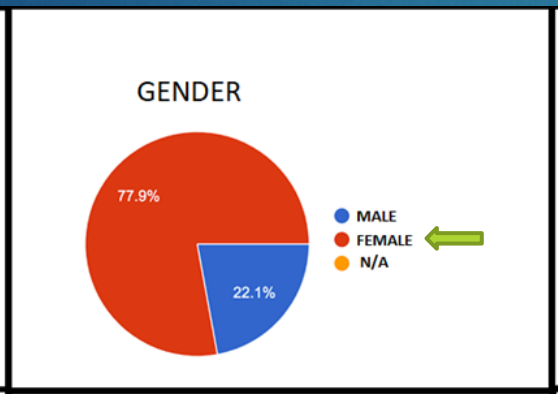
FB Study among group members
Long Covid Greek support group

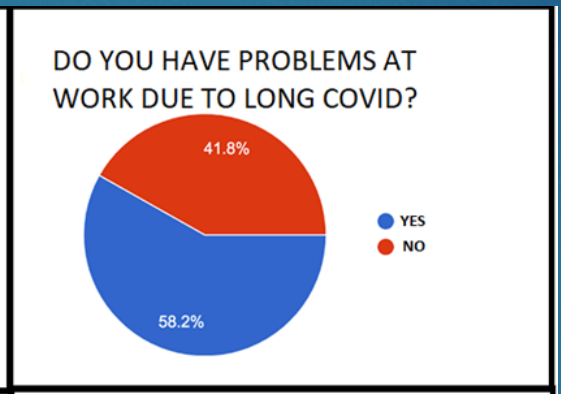
Comparison between patients after hospitalization and after mild illness

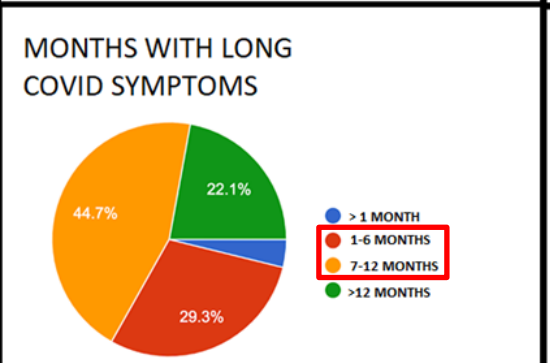
	Hospitalized (n=64)	Non-hospitalized (n=144)	Pvalue
Male	33.84% (22/64)	17,34% (25/144)	**0.00677**
Female	*64,61% (42/64)*	*82.6% (119/144)*	***0.00677***
Fatigue	71,87% (46/64)	69,44% (100/144)	0.72356
Musculoskeletal symptoms	*64,06 %(41/64)*	*45,80% (66/144)*	***0.01519***
Cognitive disorders	46,15 %(30/64)	38,19 (55/144)	0.27820
Mood disorders	18,75 % (12/64)	6,94 (10/144)	0.01061
Palpitations	26,56% (17/64)	28,4%(41/144)	0.77681
Parosmia	*1,56% (1/64)*	*13.19%(19/144)*	***0.00862***
Olfactory disorders (incl.parosmia)	*3,13% (2/64)*	*22.22% (32/144)*	***0.00058***
At least one neurological (excl. fatigue)	75,00%(48/64)	77.77%(112/144)	0.66076
Shortness of breath	23,43% (15/64)	15,27% (22/144)	0.15552
Dermatological	18,75% (12/64)	18,05% (26/144)	0.90478

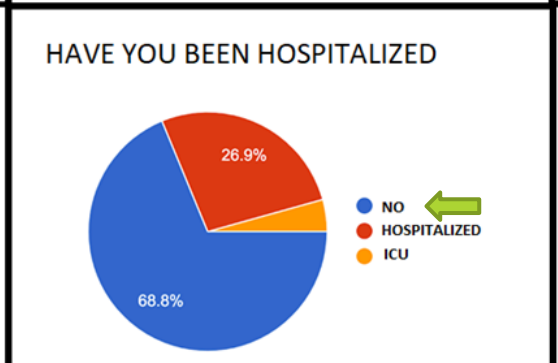
FB Study among group members
Long Covid Greek support group

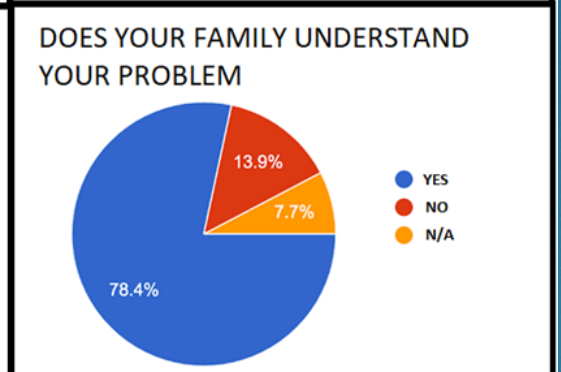


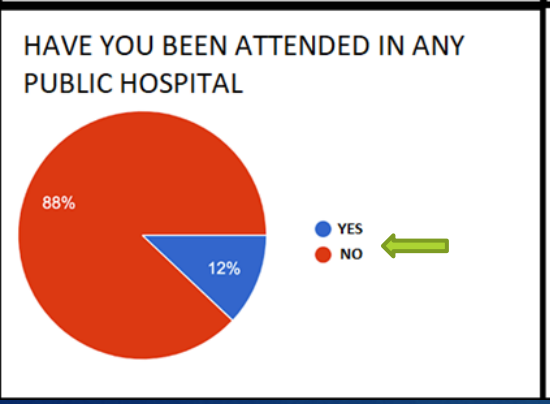


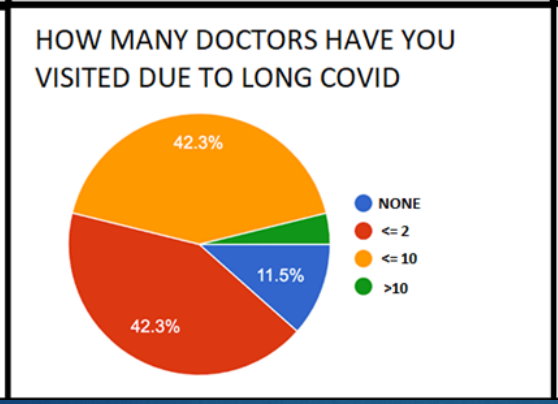


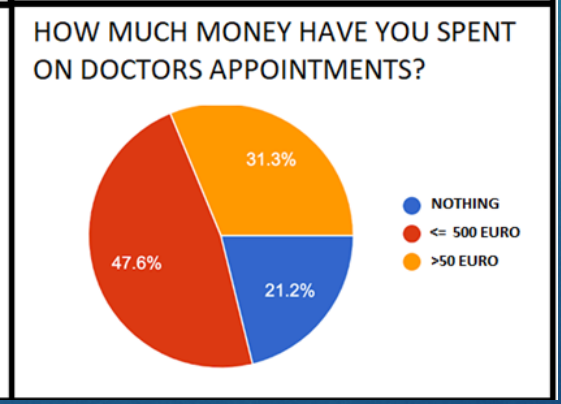


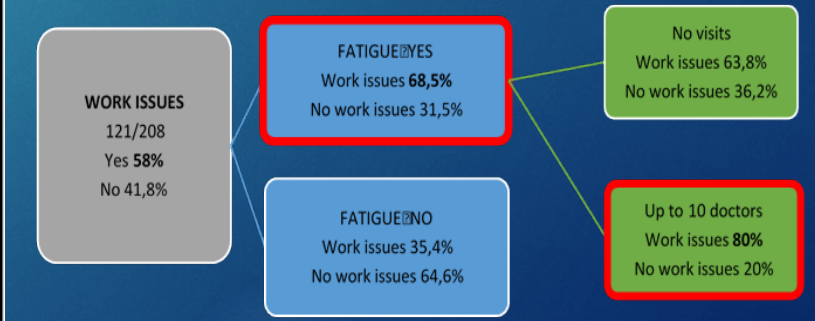






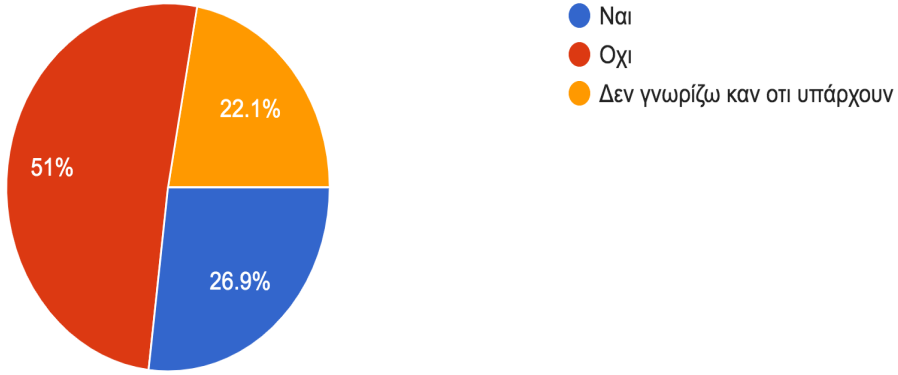






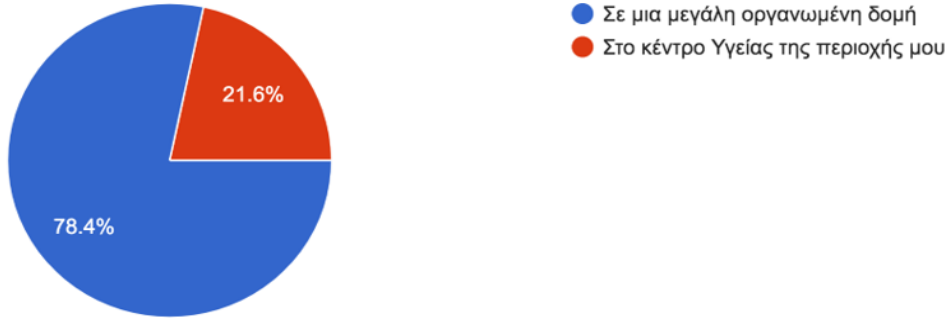
Έχετε κάνει κάποια θεραπεία αποκατάστασης ;

208 responses



Σε τί δομή θα επιθυμούσατε να απευθυνθείτε για την LongCOVID;

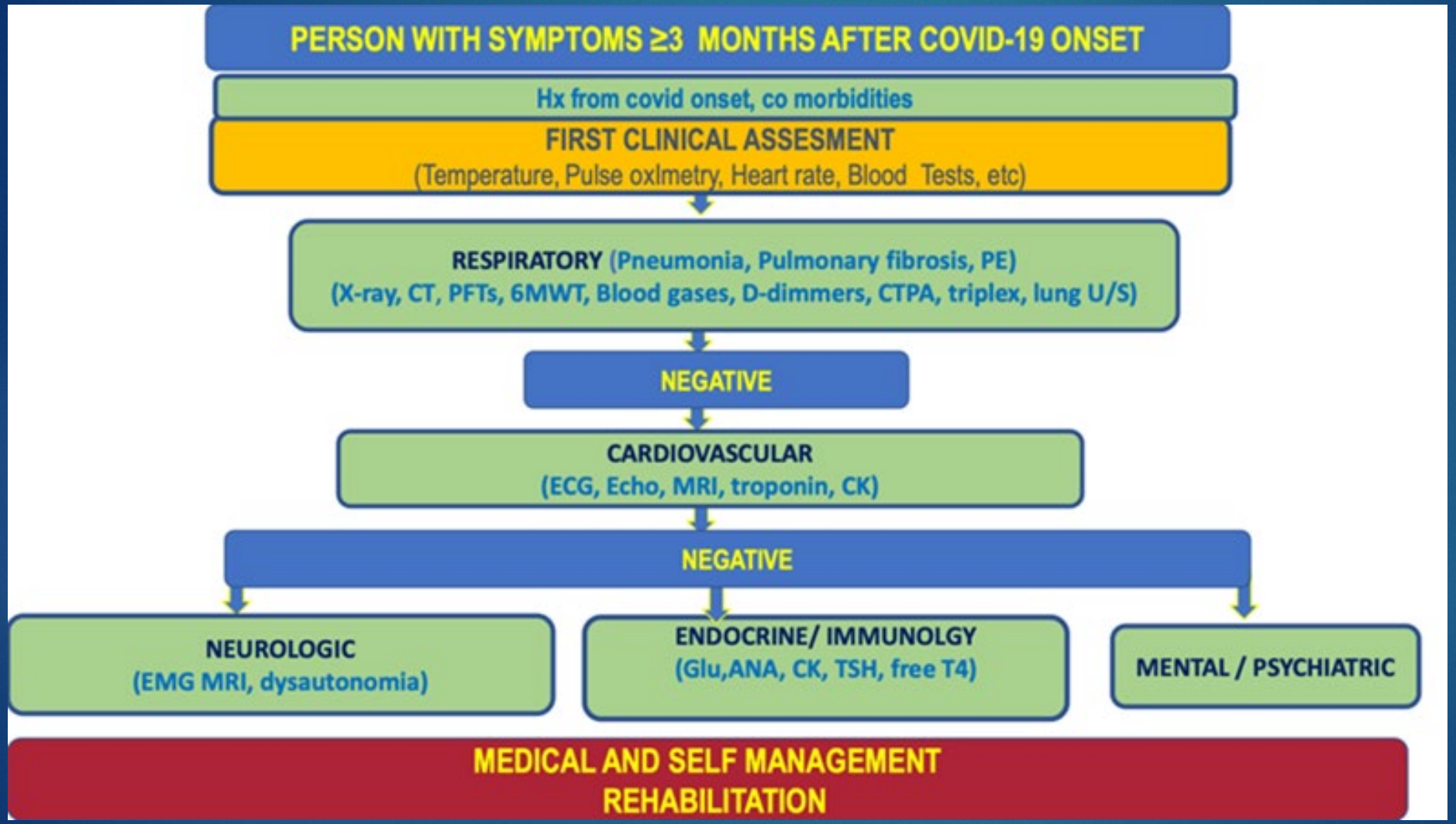
208 responses



Έχετε απευθυνθεί σε ιατρούς που διαπιστώσατε οτι δεν ήταν καθόλου ενημερωμένοι για το ζήτημα της LongCOVID;

208 responses

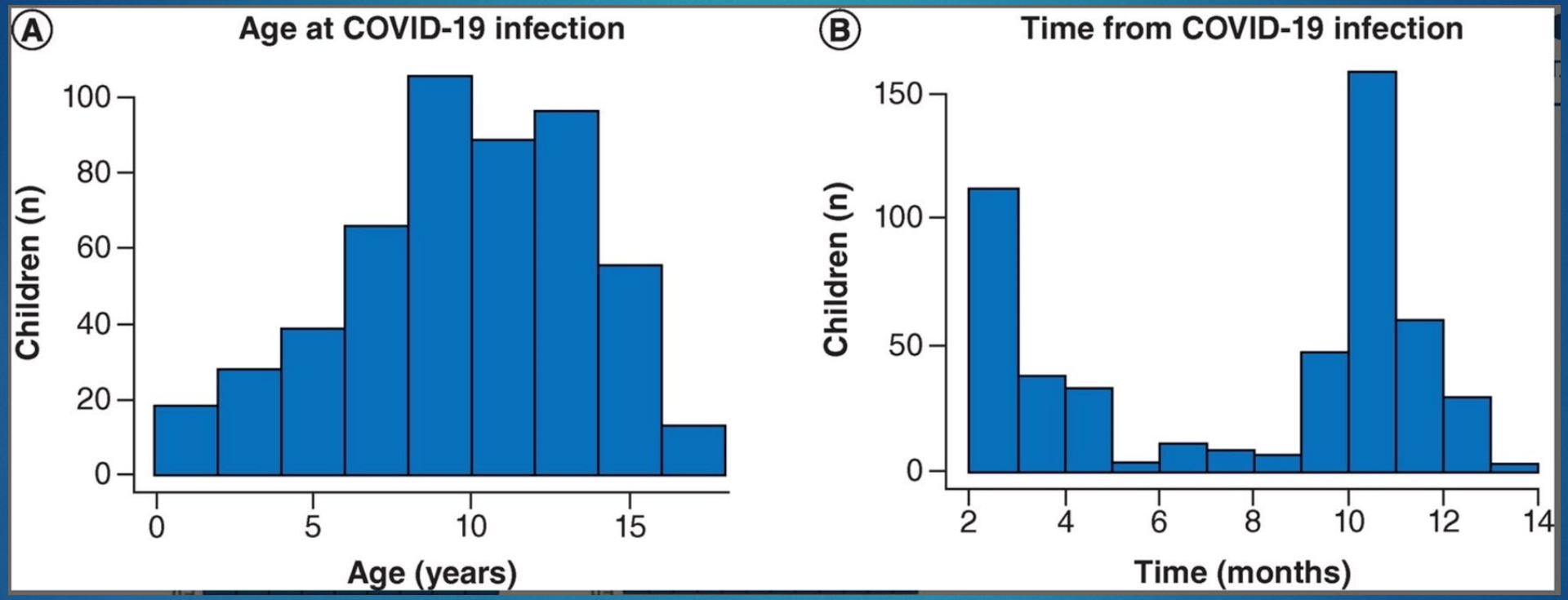
(Data not shown)


PERSON WITH SYMPTOMS ≥3 MONTHS AFTER COVID-19 ONSET
Hx from covid onset, co morbidities
FIRST CLINICAL ASSESMENT
(Temperature, Pulse oxlmetry, Heart rate, Blood Tests, etc)
RESPIRATORY (Pneumonia, Pulmonary fibrosis, PE)
(X-ray, CT, PFTs, 6MWT, Blood gases, D-dimmers, CTPA, triplex, lung U/S)
NEGATIVE
CARDIOVASCULAR
(ECG, Echo, MRI, troponin, CK)
NEGATIVE
NEUROLOGIC
(EMG MRI, dysautonomia)
ENDOCRINE/ IMMUNOLGY
(Glu,ANA, CK, TSH, free T4)
MENTAL / PSYCHIATRIC
MEDICAL AND SELF MANAGEMENT
REHABILITATION

FUTURE MICROBIOLOGY, VOL. 17, NO. 8 | SHORT COMMUNICATION Open Access

Clinical characteristics, activity levels and mental health problems in children with long coronavirus disease: a survey of 510 children

Danilo Buonsenso, Ferran Espuny Pujol, Daniel Munblit, Davide Pata, Sammie McFarland & Frances K Simpson



Confirmation status of Covid-19 infection by country of residence and time from infection

Confirmation status of COVID-19 infection by country of residence and time from infection.

Confirmation status	Country of residence			Time from infection		
	UK (N = 351)	USA (N = 94)	Other (N = 65)	1–2 months (N = 82)	3–6 months (N = 108)	7+ months (N = 320)
Clinical diagnosis, n (%)	100 (28.5)	39 (41.5)	17 (26.2)	13 (15.9)	21 (19.4)	122 (38.1)
Positive test, n (%)	83 (23.6)	37 (39.4)	25 (38.5)	64 (78)	60 (55.6)	21 (6.6)
Unconfirmed but suspected, n (%)	168 (47.9)	18 (19.1)	23 (35.4)	5 (6.1)	27 (25)	177 (55.3)

- Symptoms LCK
- CRS
  - Heart palpitations 40.2%
  - Coughing 29.6%
- Dermatological
  - Rash 52.4%
  - Red cracked lips 39.4%
  - Pealing skin on hands and feet 28%
- GI
  - Stomach pain 75.9%
  - Nausea 45.7%
  - Diarrhea and vomiting 42.4%
- HEENT
  - Red eyes 40.4%
  - Sore throat 45.1%
  - Swollen neck glands 25.1%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- Musculoskeletal
  - Muscle aches and pains 68.4%
  - Muscle and joint pain 60.6%
- Neurological
  - Headache 78.6%
  - Unexplained irritability 51.4%
  - Dizziness 48%
  - Twiches 10.8%
  - Word repetition 10.2%
  - Tics 9.2%
  - Stuttering 7.8%
- General
  - Tiredness and weakness 87.1%
  - Fatigue 80.4%
  - PEM 53.7
  - Fever 29.6%
  - Flu-like symptoms 23.7%
  - Appendicitis 1.4%

Defining long COVID in children and young people

The CLoCk researchers worked with a panel of more than 100 researchers, experts in health service delivery, and children with long COVID and their parents to score 49 statements on long COVID. These statements were then reviewed by a panel of eight 11-17 year olds affected by long COVID to reach final agreement.

Their definition of long COVID is a condition in which a child or young person has symptoms (at least one of which is a physical symptom) that:

- Have continued or developed after a diagnosis of COVID-19 (confirmed with one or more positive COVID tests)
- Impact their physical, mental or social wellbeing
- Are interfering with some aspect of daily living (eg, school, work, home or relationships) and
- Persist for a minimum duration of 12 weeks after initial testing for COVID-19 (even if symptoms have waxed and waned over that period)

The definition, published in the journal of Archives of Disease in Childhood, closely complements the WHO definition for long COVID in adults.

Definition Post Covid Condition in children and adolescents

* Symptoms described thus far in children and adolescents are non-specific and can occur with other childhood infections and illnesses. Due to the lack of empirical evidence, a broad list of potential post COVID-19 condition symptoms affecting different organ systems should be considered until more data are available. See below

Chest pain	Cognitive difficulties	Cough
Diarrhoea	Dizziness	Dyspnoea
Earache/ringing in ears	Fever	Headache
Insomnia	Joint pain or swelling	Light sensitivity
Loss of appetite	Mood swings	Myalgia
Nausea	Palpitations	Postural symptoms
Rash	Stomach ache	Sore eyes or throat

Post COVID-19 condition in children and adolescents occurs in individuals with a history of **confirmed or probable** SARS-CoV-2 infection, when experiencing symptoms lasting at least **2 months** which initially occurred within **3 months** of acute COVID-19.

Current evidence suggests that symptoms more frequently reported in children and adolescents with post-COVID-19 condition compared with controls are **fatigue, altered smell/anosmia** and **anxiety.** Other symptoms have also been reported.*

Symptoms generally have an impact on **everyday functioning** such as changes in eating habits, physical activity, behaviour, academic performance, social functions (interactions with friends, peers, family) and developmental milestones.

Symptoms may be **new onset** following initial recovery from an acute COVID-19 episode or **persist** from the initial illness. They may also **fluctuate** or **relapse** over time.

Workup may reveal additional diagnoses, but this does not exclude the diagnosis of post COVID-19 condition.

This can be applied to children of all ages, with age-specific symptoms and impact on everyday function taken into consideration.

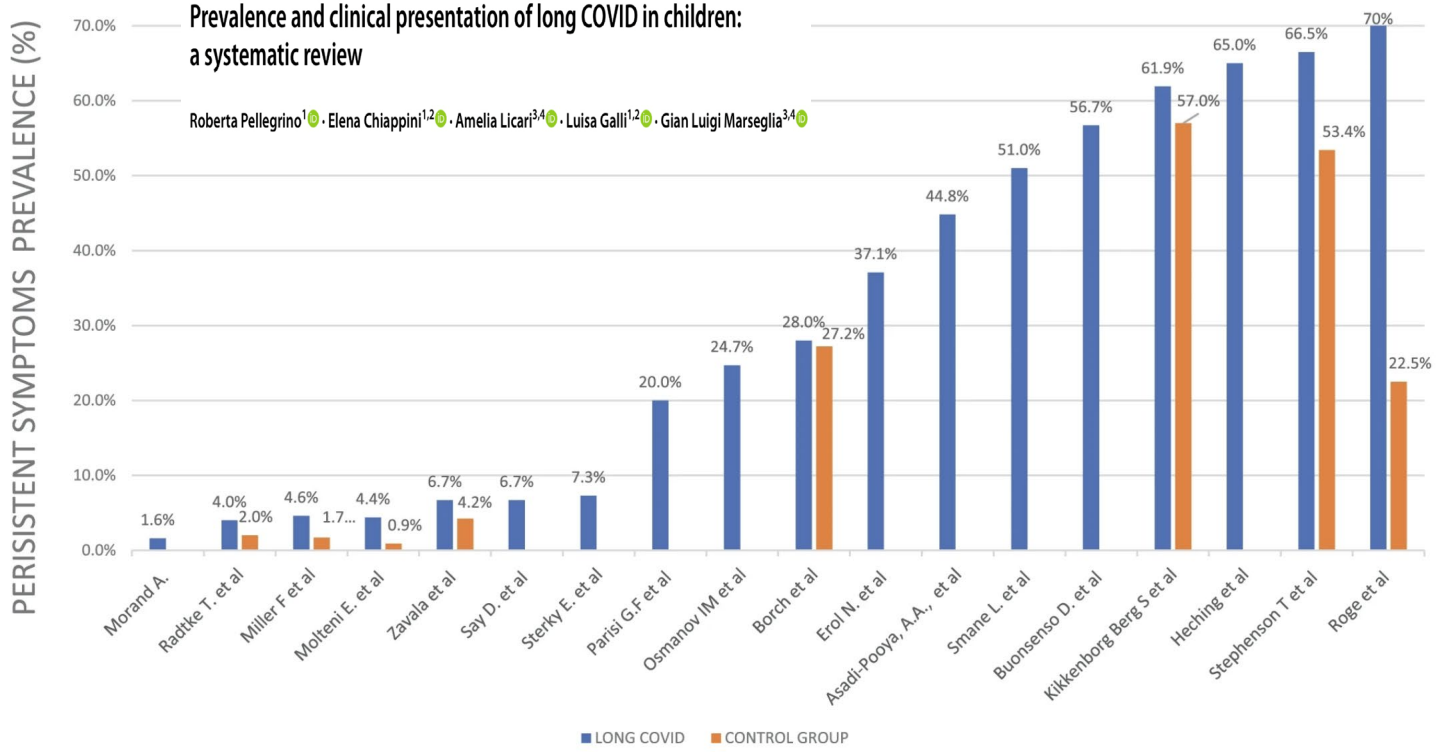
Prevalence of Long Covid in kids

10:50 πμ Δευ 9 Οκτ

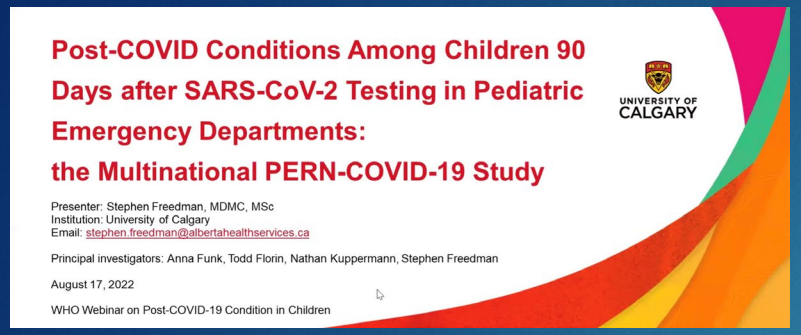
link.springer.com

96%

From: Prevalence and clinical presentation of long COVID in children: a systematic review



Prevalence of long COVID children reported. Studies with a sample restricted only to long COVID patients are not represented for the sake of comparability



SARS-CoV-2 Positive Participants

UNIVERSITY OF CALGARY

90-Day PCCs

Overall: 5.8% (95%CI: 4.8, 7.0)

Hospitalized: 9.8%

Discharged: 4.6%

Difference: 5.3% (95%CI: 2.5, 8.5)

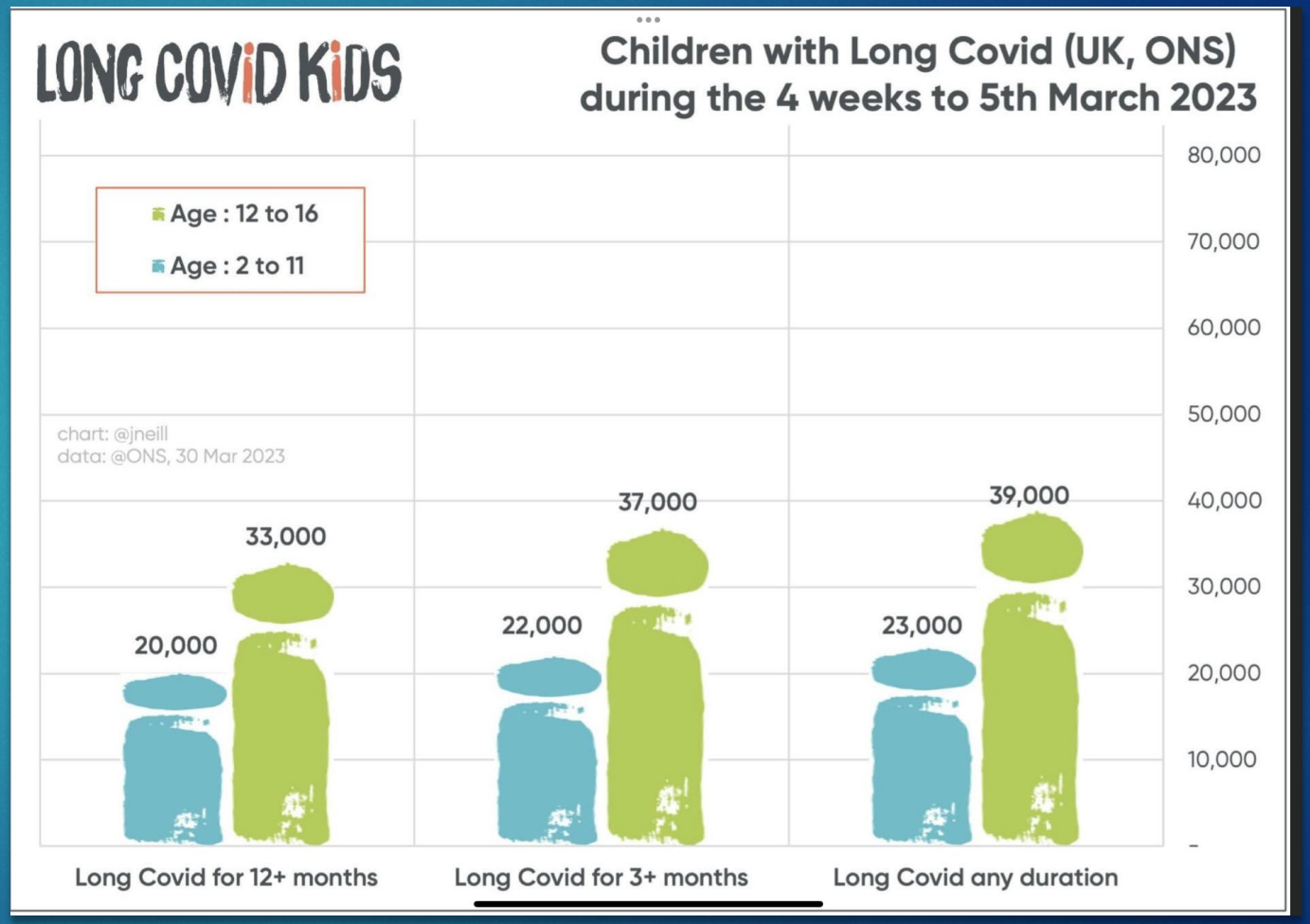
Hospitalized – severe outcome: 18.6%

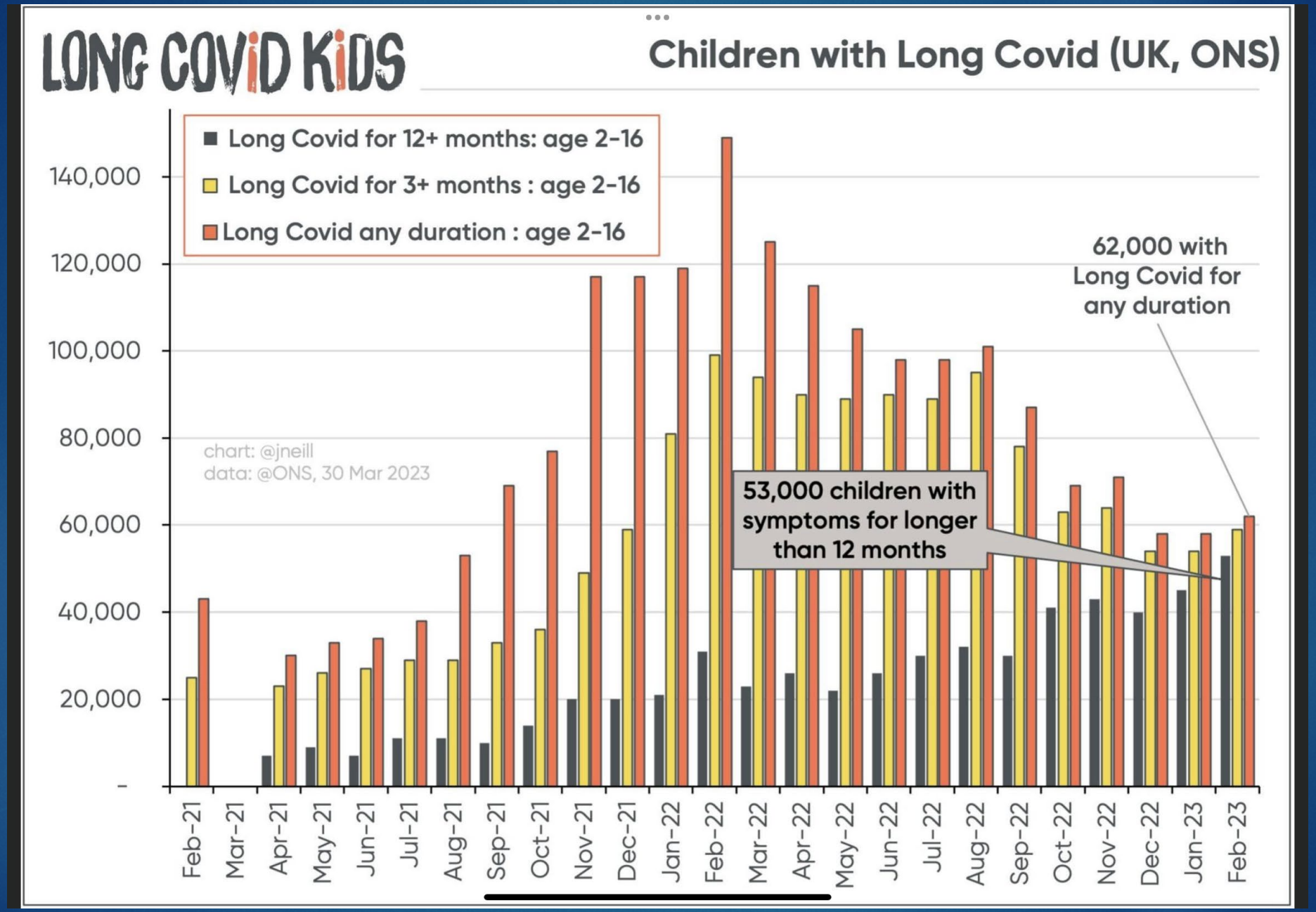
Hospitalized – no severe outcome: 8.2%

Difference: 10.4% (95%CI: 2.3, 21.3)

16

- Office of National Statistics UK 5th of March 2023
- 62.000 children are now living with long covid
  - +4000 vs previous 4 weeks
- 59.000 for 12+ weeks
  - +5000
- 53.000 for at least a YEAR




LONG COVID KIDS
Children with Long Covid (UK, ONS)
Long Covid for 12+ months: age 2-16
Long Covid for 3+ months : age 2-16
Long Covid any duration : age 2-16
140,000
120,000
100,000
80,000
60,000
40,000
20,000
-
chart: @jneill
data: @ONS, 30 Mar 2023
62,000 with Long Covid for any duration
53,000 children with symptoms for longer than 12 months
Feb-21
Mar-21
Apr-21
May-21
Jun-21
Jul-21
Aug-21
Sep-21
Oct-21
Nov-21
Dec-21
Jan-22
Feb-22
Mar-22
Apr-22
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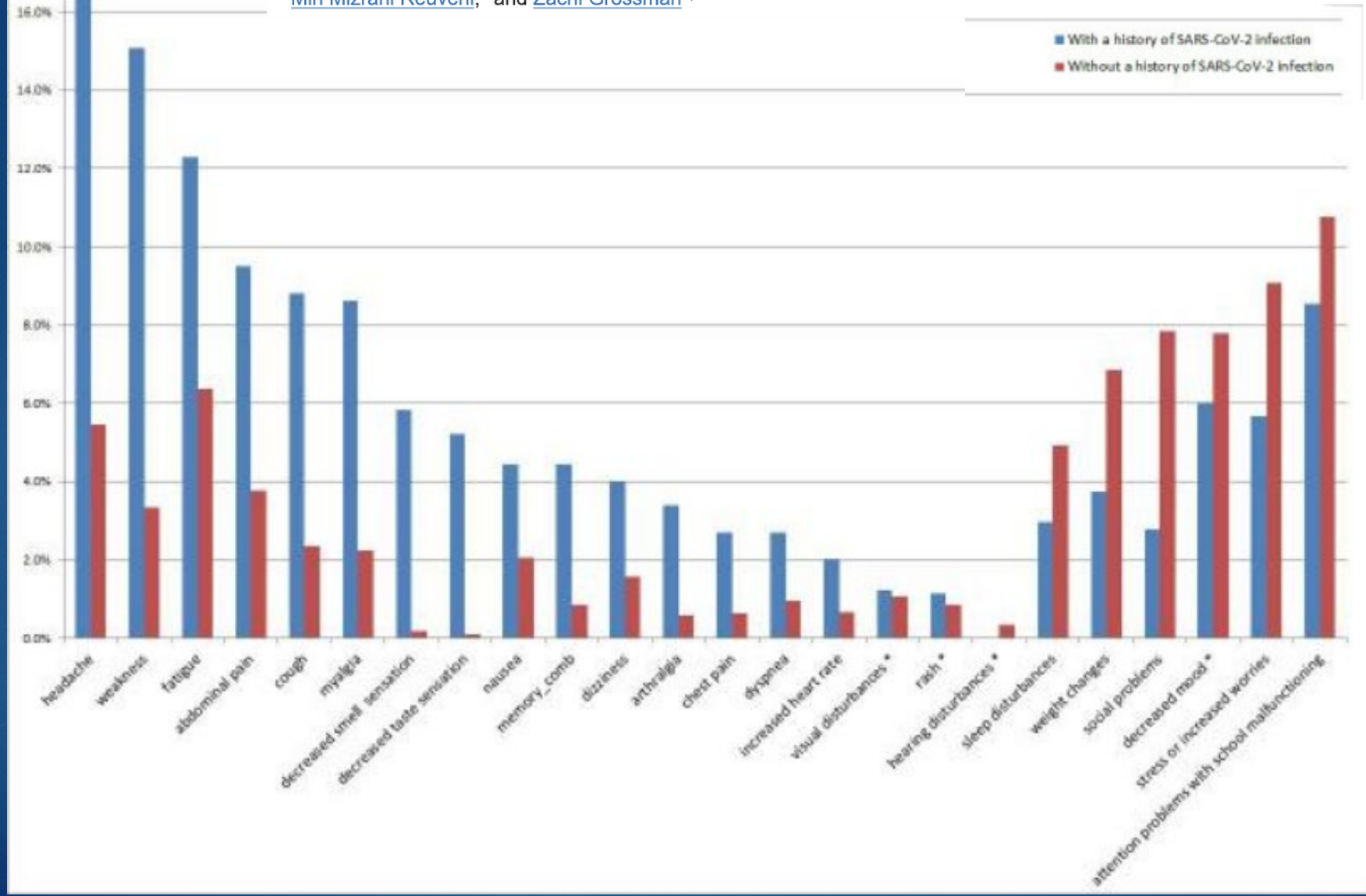
Sep-22
Oct-22
Nov-22
Dec-22
Jan-23
Feb-23

Long COVID symptoms in Israeli children with and without a history of SARS-CoV-2 infection: a cross-sectional study

Limor Adler,[1,2] Moran Israel,[2] Ilan Yehoshua,[2,3] Joseph Azuri,[1,2] Robert Hoffman,[1,2] Arnon Shahar,[2] Miri Mizrahi Reuveni,[2] and Zachi Grossman[2,4]



Post–COVID-19 Symptoms and Conditions Among Children and Adolescents — United States, March 1, 2020–January 31, 2022

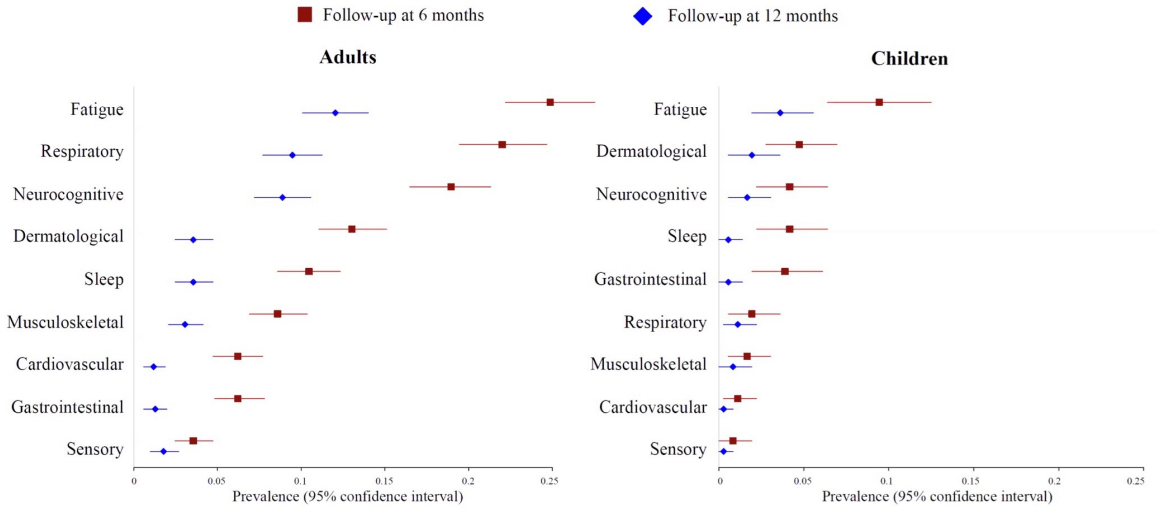
Lyudmyla Kompaniyets, PhD[1]; Lara Bull-Otterson, PhD[1]; Tegan K. Boehmer, PhD[1]; Sarah Baca[1,2]; Pablo Alvarez, MPH[1,2]; Kai Hong, PhD[1]; Joy Hsu, MD[1]; Aaron M. Harris, MD[1]; Adi V. Gundlapalli, MD, PhD[1]; Sharon Saydah, PhD[1]

TABLE 3. Adjusted hazard ratios of selected potential post–COVID-19 symptoms and conditions among children and adolescents aged 2–17 years with and without COVID-19, by age group — HealthVerity medical claims database, United States, March 1, 2020–January 31, 2022

Outcome	Adjusted hazard ratio (95% CI)*		
	Aged 2–4 yrs	Aged 5–11 yrs	Aged 12–17 yrs
Symptom			
Smell and taste disturbances	1.22 (0.70–2.15)	0.94 (0.83–1.07)	1.23 (1.16–1.31)†
Circulatory signs and symptoms	1.17 (1.12–1.23)†	1.11 (1.08–1.13)†	1.04 (1.02–1.06)†
Malaise and fatigue	1.13 (1.05–1.22)†	1.08 (1.05–1.12)†	1.03 (1.01–1.04)†
Musculoskeletal pain	1.16 (1.10–1.21)†	1.06 (1.04–1.07)†	1.00 (0.99–1.01)
Dizziness and syncope	1.08 (0.90–1.29)	1.03 (0.99–1.08)	1.00 (0.98–1.02)
Gastrointestinal and esophageal disorders	1.15 (1.10–1.20)†	1.02 (1.00–1.04)†	0.97 (0.95–0.99)†
Sleeping disorders	0.99 (0.93–1.06)	0.89 (0.86–0.92)†	0.91 (0.89–0.94)†
Respiratory signs and symptoms	1.07 (1.04–1.10)†	0.93 (0.92–0.94)†	0.88 (0.87–0.89)†
Symptoms of mental conditions	1.03 (0.97–1.10)	0.92 (0.90–0.95)†	0.89 (0.86–0.91)†
Condition			
Acute pulmonary embolism	—§	—§	2.03 (1.61–2.56)†
Myocarditis and cardiomyopathy	2.39 (1.57–3.65)†	2.84 (2.39–3.37)†	1.66 (1.48–1.88)†
Venous thromboembolic event	—§	2.69 (1.73–4.19)†	1.52 (1.22–1.91)†
Acute and unspecified renal failure	1.52 (1.07–2.14)†	1.38 (1.16–1.63)†	1.27 (1.15–1.40)†
Type 1 diabetes	1.01 (0.57–1.78)	1.31 (1.13–1.53)†	1.20 (1.09–1.33)†
Coagulation and hemorrhagic disorders	1.47 (1.20–1.80)†	1.28 (1.15–1.43)†	1.10 (1.03–1.19)†
Type 2 diabetes	1.24 (0.85–1.81)	1.14 (1.02–1.28)†	1.18 (1.11–1.24)†
Cardiac dysrhythmias	1.44 (1.22–1.70)†	1.23 (1.14–1.32)†	1.12 (1.08–1.17)†
Cerebrovascular disease	1.66 (0.85–3.23)	1.14 (0.79–1.64)	1.18 (0.93–1.48)
Chronic kidney disease	0.86 (0.54–1.36)	1.04 (0.83–1.31)	1.12 (0.96–1.31)
Asthma	1.12 (1.07–1.18)†	1.02 (1.00–1.05)†	0.96 (0.94–0.98)†
Muscle disorders	0.87 (0.77–0.98)†	0.86 (0.82–0.91)†	0.96 (0.93–0.99)†
Neurological conditions	0.98 (0.93–1.04)	0.96 (0.93–0.98)†	0.91 (0.89–0.93)†
Anxiety and fear-related disorders	0.91 (0.83–1.00)	0.86 (0.83–0.88)†	0.84 (0.82–0.85)†
Mood disorders	0.82 (0.62–1.08)	0.73 (0.69–0.77)†	0.80 (0.77–0.83)†

PC-COS Children

ISARIC



Pazukhina E et al. BMC Med. 2022 Jul 6; 20(1):244

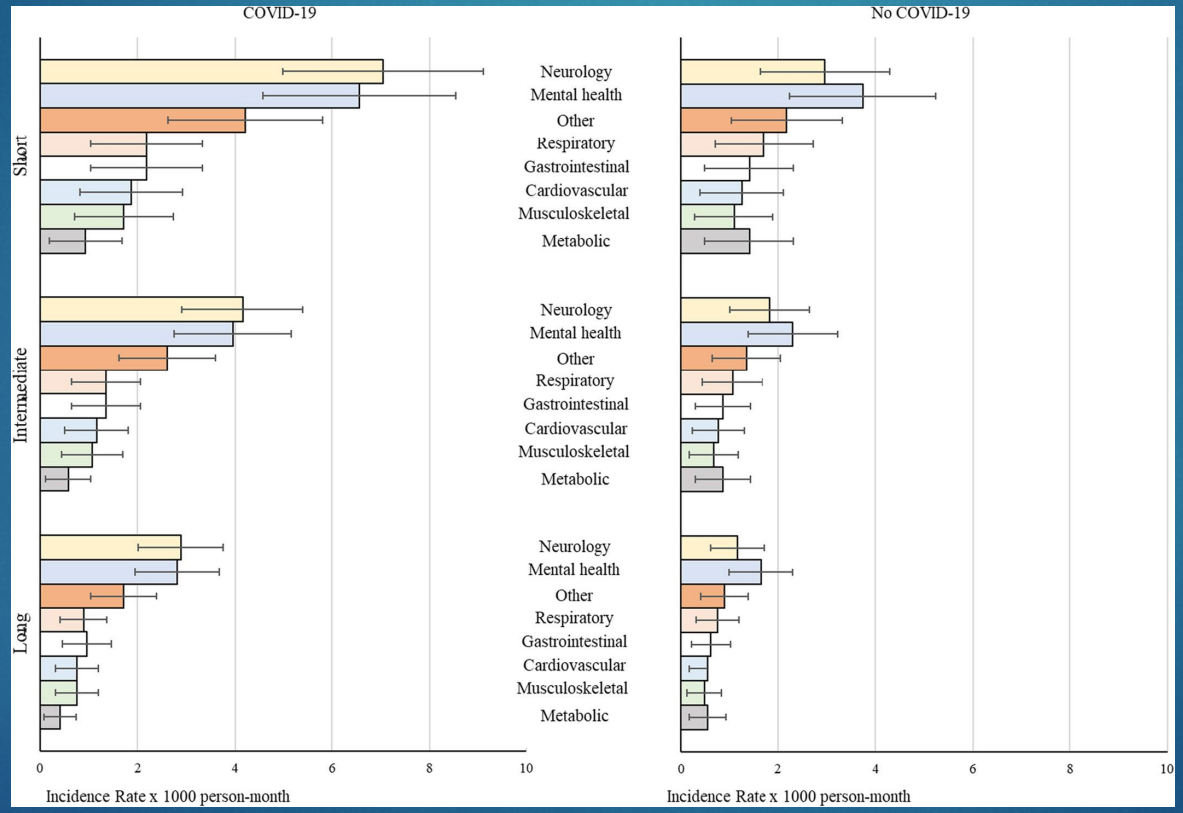
Research article | Open access | Published: 06 July 2022

Prevalence and risk factors of post-COVID-19 condition in adults and children at 6 and 12 months after hospital discharge: a prospective, cohort study in Moscow (StopCOVID)

Ekaterina Pazukhina, Margarita Andreeva, Ekaterina Spiridonova, Polina Bobkova, Anastasia Shikhaleva, Yasmin El-Taravi, Mikhail Rumyantsev, Aysylu Gamirova, Anastasiia Bairashevskaia, Polina Petrova, Dina Baimukhambetova, Maria Pikuza, Elina Abdeeva, Yulia Filippova, Salima Deunezhewa, Nikita Nekliudov, Polina Bugaeva, Nikolay Bulanov, Sergey Avdeev, Valentina Kapustina, Alla Guekht, Audrey DunnGalvin, Pasquale Comberiati, Diego G. Peroni, Sechenov StopCOVID Research Team + Show authors

Di Chiara C, Barbieri E, Chen YX, Visonà E, Cavagnis S, Sturniolo G, Parca A, Liberati C, Cantarutti L, Lupattelli A, Le Prevost M, Corrao G, Giaquinto C, Donà D, Cantarutti A. **Comparative study showed that children faced a 78% higher risk of new-onset conditions after they had COVID-19**. Acta Paediatr. 2023 Sep 9. doi: 10.1111/apa.16966. Epub ahead of print. PMID: 37688774

Comparative study showed that children faced a 78% higher risk of new-onset conditions after they had COVID-19



Risk factors for long covid in children and adolescent

- Older age >10yr
- Female
- Poor physical and mental health
- Severe infection(MIS or severe clinical symptoms)
- Allergies and atopy

Impact of long covid on the school experiences of children and young people : a qualitive study

- Finding 1 : going to school is a valued part of CYP's lives. Returning to school full time was highlighted as a key part of regaining "normal life"
- Finding 2 : Attending school (on-person or on-line) with LC is extremely difficult, with the need to manage symptoms to prevent relapse
- Finding 3 : School responses to CYP with LC were reported to be mixed and hampered by difficulties communicating with healthcare professionals during the pandemic and a lack of awareness of LC among healthcare and educational professionals

Impact of long covid on the school experiences of children and young people : a qualitive study

Results from the survey show that:

Attendance is being greatly impacted for **75%** of respondents, with only **7%** of CYP being able to attend school for five full days in a typical week.

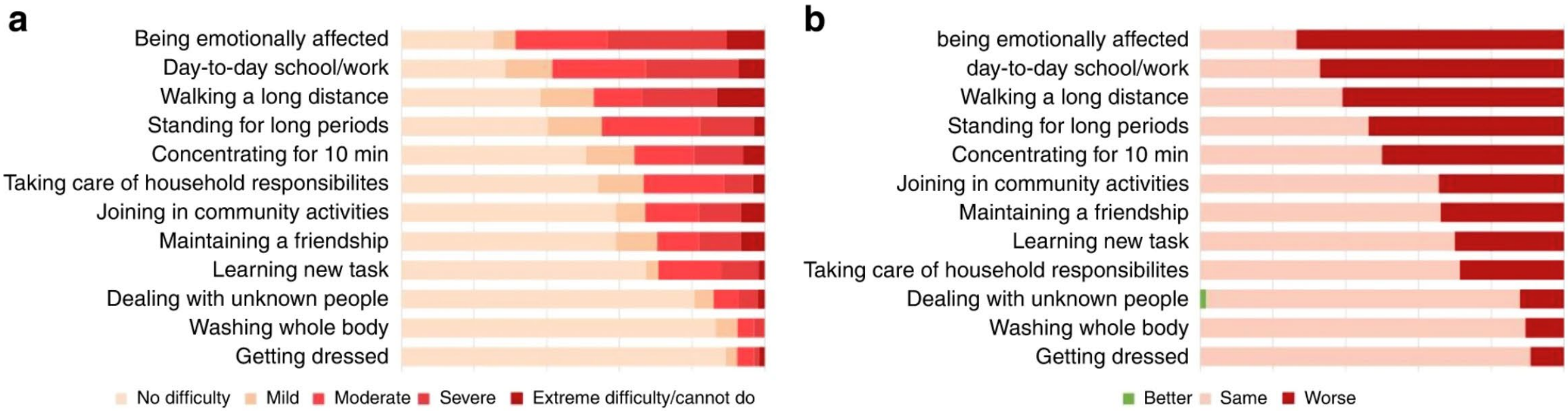
- **A child with Long Covid is reported to lose an average of 20.6 learning hours per week.**
- **29%** of respondents would estimate that their children's education has been disrupted (defined as missing more than **0.5** days per week) for 1-1.5 years and **18%** estimate disruption for 1.5-2 years.
- Since their COVID-19 infection, **69%** report that their education status has changed (Changes in education status include a significant reduction in hours, leaving education entirely and the implementation of a new provision of hybrid or home learning by the Local Authority).

In terms of a change in education status:

- **96%** were at school/college full time (plus **2%** were home-educated to the equivalent of full time) before their COVID-19 infection.
- Since COVID-19 infection, **1.5%** are attending school/college full-time.
- **6%** are now home-educated (which is a 3-fold increase on pre-covid figures).
- **9%** are now receiving home or hybrid education provided by the Local Authority.
- 1**0%** are currently temporarily away from school/ college ill and **10%** are too unwell to access any education.

Fig. 3: The reported quality of life of children with LC.

From: Clinical assessment of children with long COVID syndrome



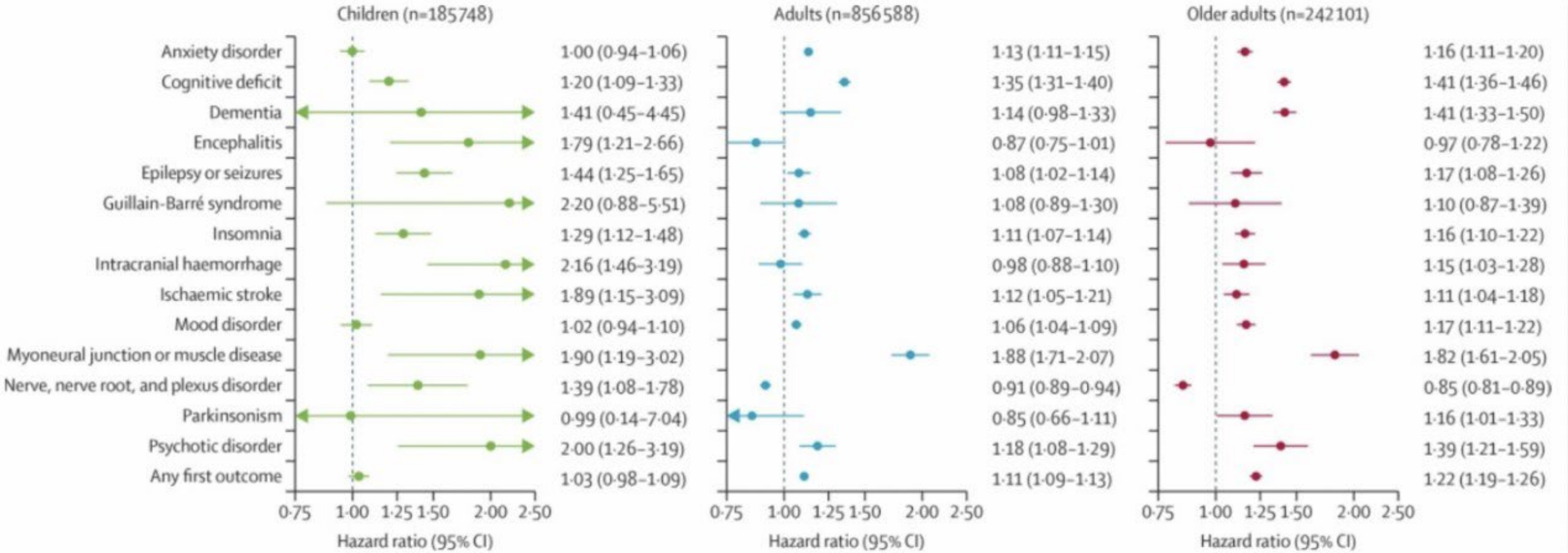
Clinical Research Article | Open access | Published: 07 December 2022

Clinical assessment of children with long COVID syndrome

Réka Garai, Péter Krivácsy, Vivien Herczeg, Fanni Kovács, Bálint Tél, Judit Kelemen, Anna Máthé, Eszter Zsáry, Johanna Takács, Dániel Sándor Veres & Attila J. Szabó

Buonsenso D, Camporesi A, Morello R, De Rose C, Fracasso M, Chieffo DPR, Valentini P. **Social Stigma in Children with Long COVID.** Children (Basel). 2023 Sep 7;10(9):1518. doi: 10.3390/children10091518. PMID: 37761479; PMCID: PMC10529184.

- Children with LC felt
  - Embarrassed about having long covid
  - Embarrassed about having physical limitations
  - Less valued and different from peers
  - That people behaved differently towards them since they might be lying since diagnosis
  - Less respected by others
  - That other people thought that long covid is not a real disease
  - That other people thought that developing long covid is a sign of weakness that other people might
  - That other people might judge them negatively due to their diagnosis



Neurological and psychiatric risk trajectories after SARS-CoV-2 infection: an analysis of 2-year retrospective cohort studies including 1 284 437 patients

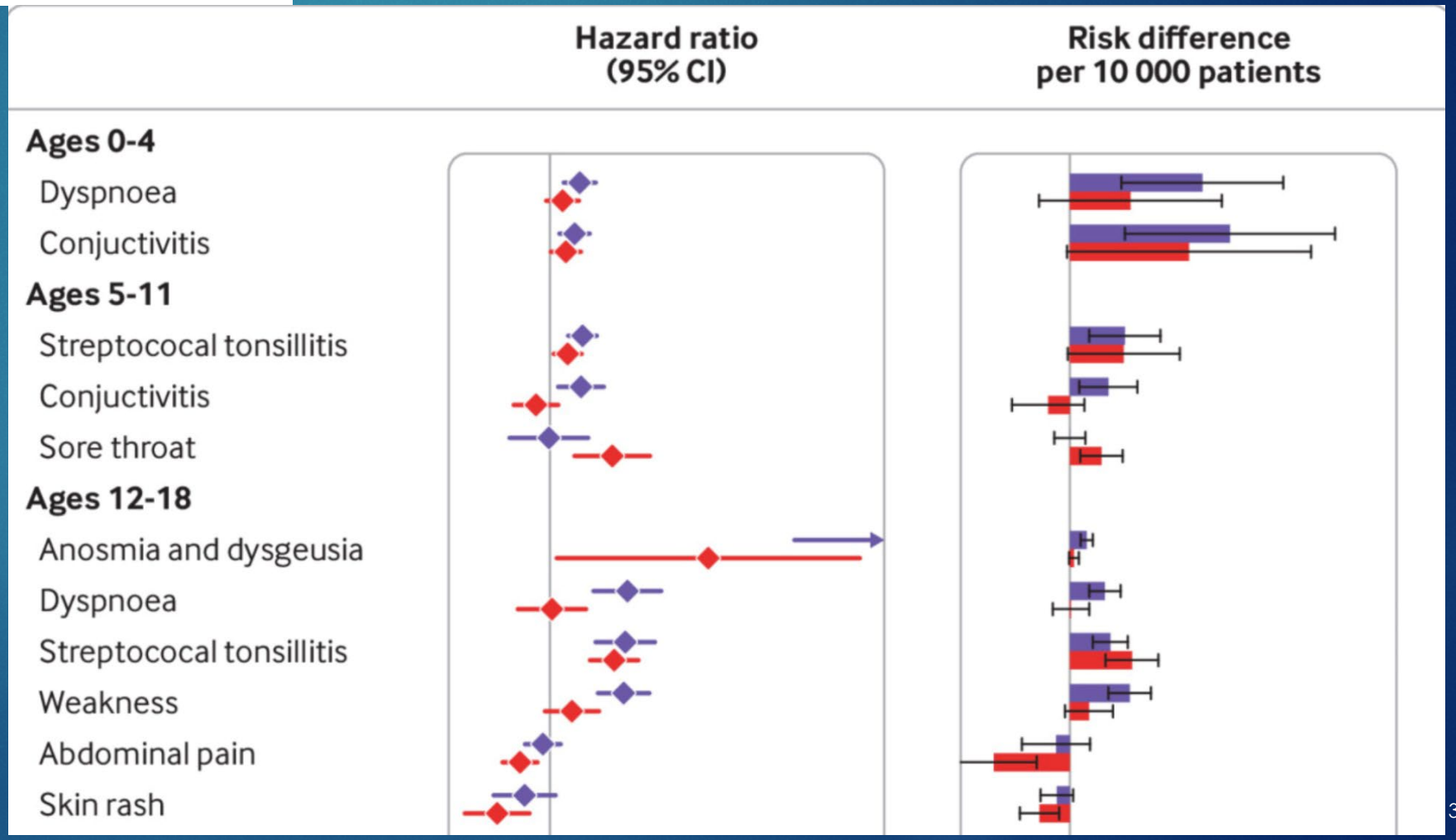
Maxime Taquet, PhD • Rebecca Sillett, BA • Lena Zhu, BS • Jacob Mendel, MMath • Isabella Camplisson, BS • Quentin Dercon, MSc • et al. Show all authors

Open Access • Published: August 17, 2022 • DOI: https://doi.org/10.1016/S2215-0366(22)00260-7 •

Long covid outcomes at one year after mild SARS-CoV-2 infection: nationwide cohort study

BMJ 2023 ; 380 doi: https://doi.org/10.1136/bmj-2022-072529 (Published 11 January 2023)
Cite this as: *BMJ* 2023;380:e072529

Barak Mizrahi, senior researcher [1], Tamar Sudry, researcher [1], Natalie Flaks-Manov, senior researcher [1], Yoav Yehezkelli, medical consultant [1], Nir Kalkstein, senior researcher [1], Pinchas Akiva, senior researcher [1], Anat Ekka-Zohar, head of quality, Research and Digital Health Division [2], Shirley Shapiro Ben David, director of Infectious Diseases Unit [2], Uri Lerner, project manager [2], Maytal Bivas-Benita, senior researcher [1], Shira Greenfeld, director of medical informatics [2]

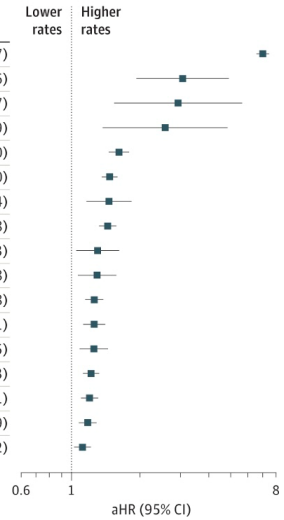


JAMA Network™

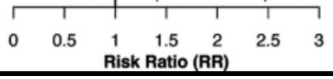
From: **Clinical Features and Burden of Postacute Sequelae of SARS-CoV-2 Infection in Children and Adolescents**

JAMA Pediatr. 2022;176(10):1000-1009. doi:10.1001/jamapediatrics.2022.2800

Health condition	aHR (95% CI)
COVID-19	7.00 (6.56-7.47)
Myocarditis	3.10 (1.94-4.96)
Acute respiratory distress syndrome	2.96 (1.54-5.67)
Myositis	2.59 (1.37-4.89)
Mental health treatment	1.62 (1.46-1.80)
Disorders of teeth/gingiva	1.48 (1.36-1.60)
Other/ill-defined heart disease	1.47 (1.17-1.84)
Fluid/electrolyte disturbance	1.45 (1.32-1.58)
Thrombophlebitis and thromboembolism	1.31 (1.05-1.63)
Acute kidney injury	1.30 (1.07-1.58)
Tonsillitis	1.26 (1.15-1.38)
Bronchiolitis	1.26 (1.13-1.41)
Pneumonia	1.26 (1.09-1.45)
Other specified inflammatory condition of skin	1.22 (1.12-1.33)
Obesity	1.20 (1.10-1.31)
Communication/motor disorders	1.18 (1.08-1.29)
Gastroenteritis	1.12 (1.03-1.22)



Time	Matched Cohort COVID–19 (+)	Matched Cohort COVID–19 (–)	RR (95% CI)
Children (0–5 years)			
RSV, all	4.85% (306/6,308)	3.68% (232/6,308)	1.32 (1.12–1.56)
RSV, clinical diagnosis	3.47% (219/6,308)	2.70% (170/6,308)	1.29 (1.06–1.57)
RSV, positive lab test	2.57% (162/6,308)	1.59% (100/6,308)	1.62 (1.27–2.07)
Bronchiolitis due to RSV	2.19% (138/6,308)	1.76% (111/6,308)	1.24 (0.97–1.59)
Bronchiolitis, non–specific	2.62% (165/6,308)	1.92% (121/6,308)	1.36 (1.08–1.72)
Children (0–1 year)			
RSV, all	7.30% (195/2,670)	4.98% (133/2,670)	1.47 (1.18–1.82)
RSV, clinical diagnosis	5.43% (145/2,670)	3.75% (100/2,670)	1.45 (1.13–1.86)
RSV, positive lab test	3.67% (98/2,670)	2.36% (63/2,670)	1.56 (1.14–2.13)
Bronchiolitis due to RSV	3.90% (104/2,670)	2.77% (74/2,670)	1.41 (1.05–1.88)
Bronchiolitis, non–specific	5.02% (134/2,670)	2.70% (72/2,670)	1.86 (1.41–2.47)



Disrupted seasonality and association of COVID-19 with medically attended respiratory syncytial virus infections among young children in the US: January 2010–January 2023

Lindsey Wang, Pamela B. Davis, Nathan A. Berger, David C. Kaelber, Nora D. Volkow, Rong Xu

Ned Tijdschr Geneeskd. 2023 Mar 16:167:D7118.

[Invasive group A streptococcal infections in the Netherlands]

[Article in Dutch]

Natalie V S Vinkeles Melchers [1 2], Femke Nawijn [3], Lidewij W Rümke [4], Laura M L Dix [5], Stefan M T Vestjens [4], Falco Hietbrink [3], Raïssa Tjon-Kon-Fat [6], Ellen Verspui-van der Eijk [6], Brechje de Gier [7], Bart J M Vlaminckx [8], Caner Içli [9], Marjolijn S W Quaak [10], Elisabeth Inge G W Huijskens [11]

Affiliations + expand

PMID: 36928399

Type 1 Diabetes Incidence and Risk in Children With a Diagnosis of COVID-19

Andreas Weiss, MSc[1]; Ewan Donnachie, MSc[2]; Andreas Beyerlein, PhD[3]; et al

» Author Affiliations | Article Information

JAMA. 2023;329(23):2089-2091. doi:10.1001/jama.2023.8674

Incidence of Diabetes in Children and Adolescents During the COVID-19 Pandemic

A Systematic Review and Meta-Analysis

Daniel D'Souza, BHSc, [1] Jessica Empringham, MD, [2] Petros Pechlivanoglou, PhD, [1,3] Elizabeth M. Uleryk, MLS, [4] Eyal Cohen, MD, MSc, [1,2,3,5] and Rayzel Shulman, MD, PhD [1,2,3,6]

Letter

T Cell Cross-reactivity in Autoimmune-like Hepatitis Triggered by COVID-19

Yisu Liu [a b †], Yuqian Wang [a b †], Zhiqiang Peng [a b], Guideng Li [a b], Jianwei Wang [c]

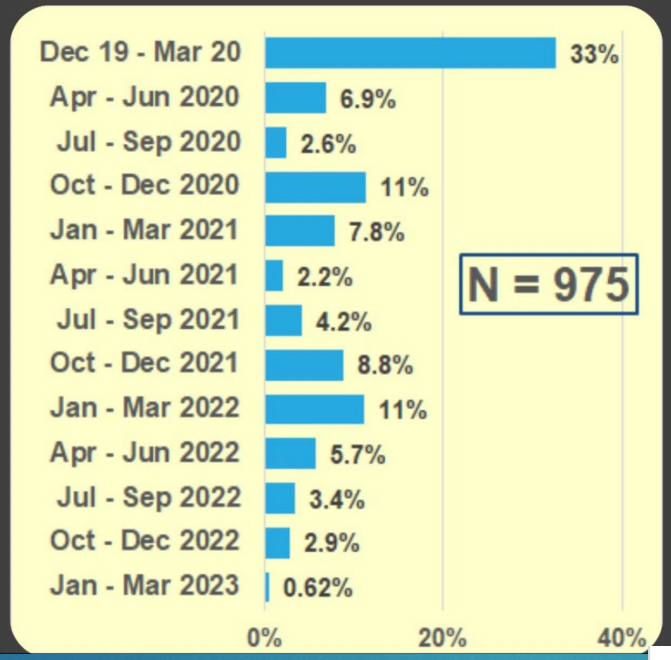
LONG COVID SUPPORT

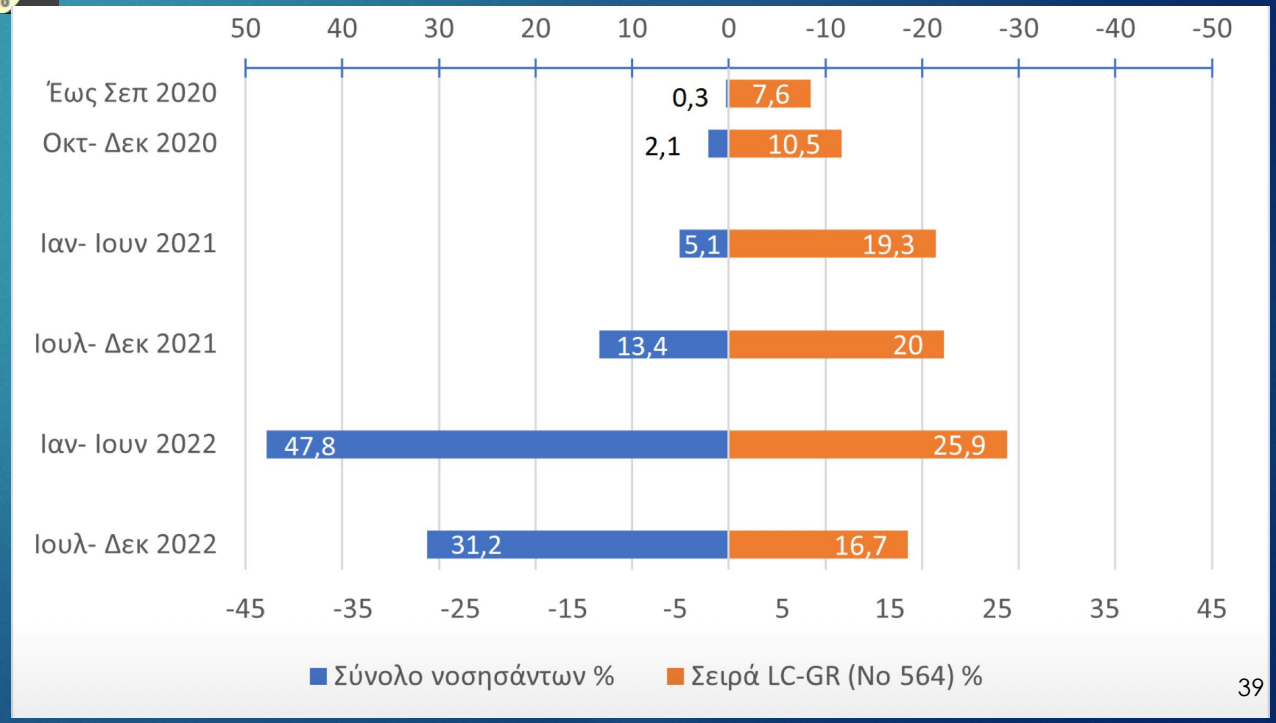
LCS ONE-QUESTION POLL #1

975 RESPONSES

WHEN DID YOU GET THE COVID INFECTION THAT FIRST LED TO LONG COVID?

WWW.LONGCOVID.ORG





- ‘For now, there are no clear answers’ “The doctors have not been able to help me much, because they simply don’t understand my condition,”

Jay age 12

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Home / News / “What is wrong with me?” Children face a frustrating lack of answers about long COVID

“What is wrong with me?” Children face a frustrating lack of answers about long COVID

5 October 2023 | News release

Thank you
no health inequities

LONG COVID GREECE

LONG COVID EUROPE