

CHARACTERIZING LONG COVID AND ITS PHYSICAL, MENTAL AND SOCIAL IMPLICATIONS

COVIMPACT study

Objectives of the study

1. To study the evolution of the long term impact of a COVID-19 infection on physical, mental and social health
2. Identify groups at risk and the factors associated with a favourable / unfavourable evolution

COVIMPACT Study

CONTACT

- Via contact tracing agents (SMS)
- Recent Covid-19 Infection
- 18 +
- Living in Belgium



COHORT

- Recrutement during 2 years
- Voluntary basis
- Diversity of profiles et severity of cases



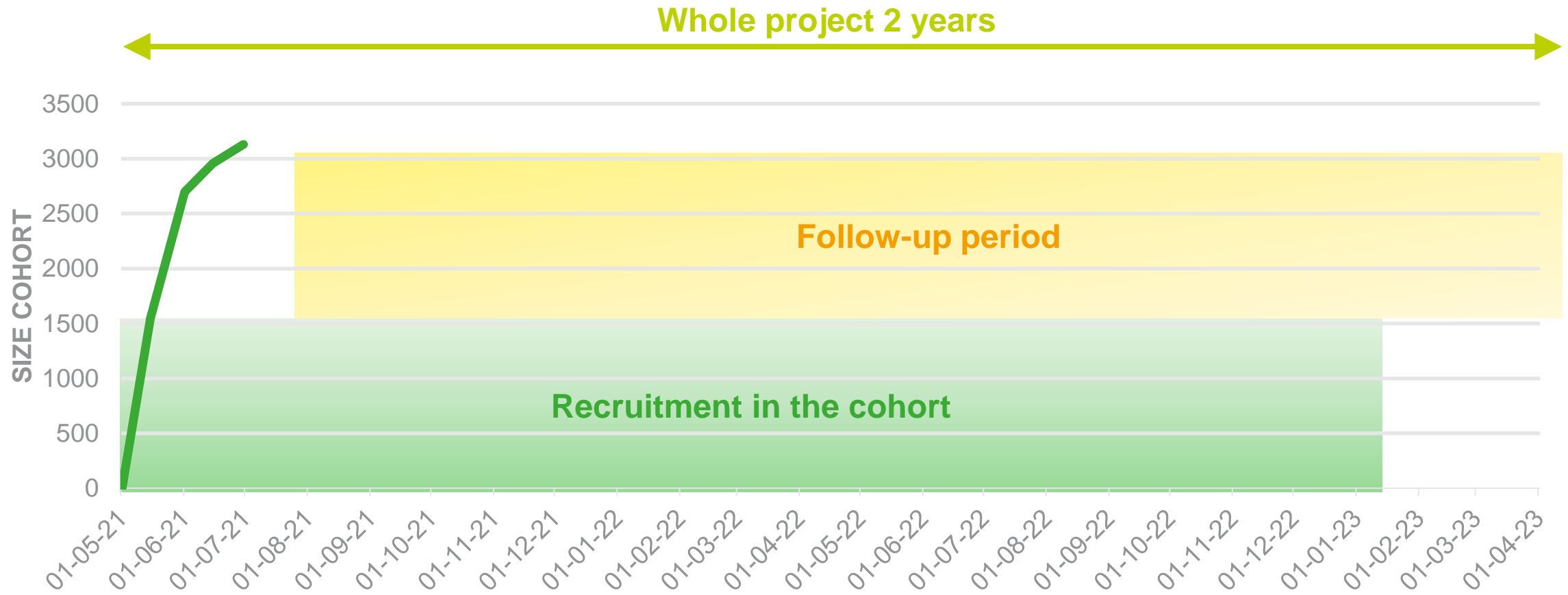
FOLLOW

- By e-mail
- Every 3 months for 2 years
- Min 2 points of collection et Max 9

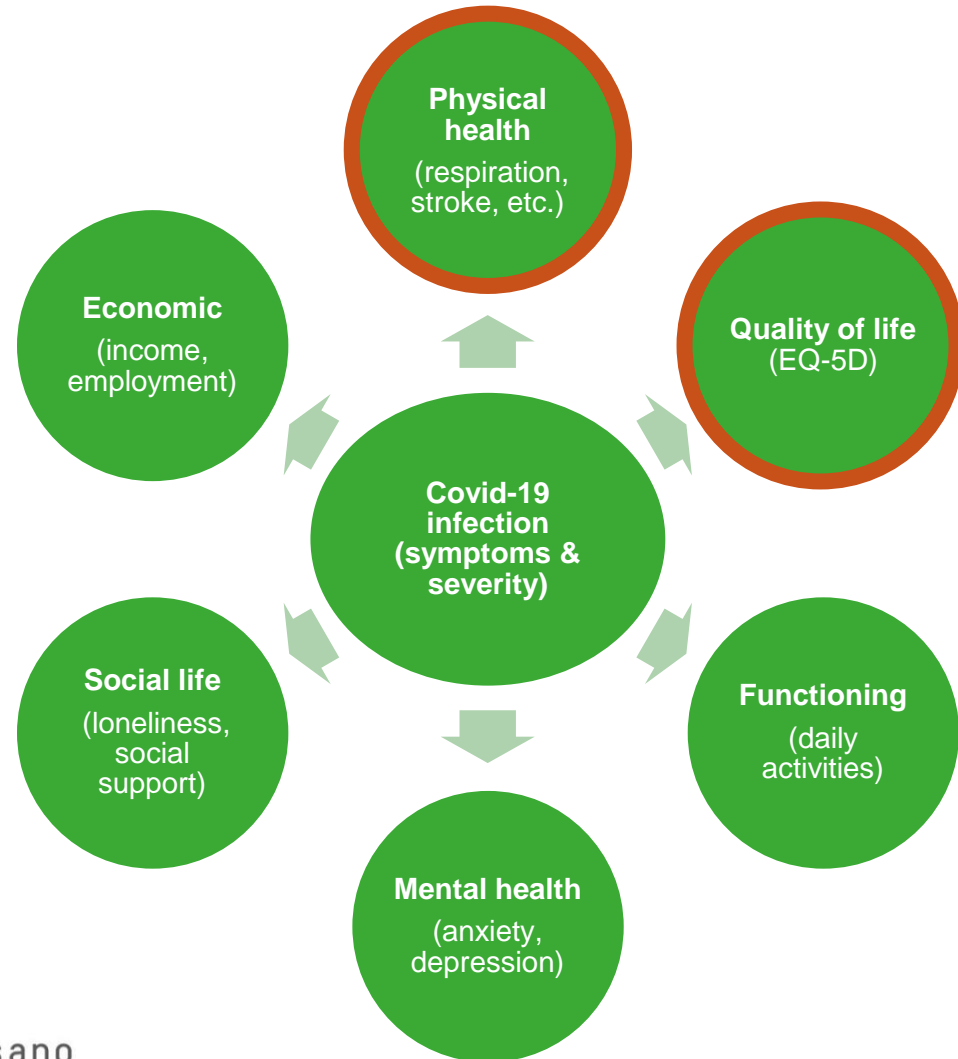
First recruitment on April 29 2021 → first follow-up on July 29 2021

Current cohort

Since 29/04/21: 3129 completed questionnaire with agreement to follow overtime



Global approach of long term consequences



Factors potentially associated with favorable/unfavorable evolution

- **Sociodemographic** (age, sex, educational level, etc.)
- **Vaccination status**
- **Health behaviors** (nutrition, smoking, etc.)
- **Comorbidities** (Asthma, diabetes, etc.)
- **Health care use**

Profile of the current cohort

- Average age 41 years, 60% women, 51% high educational level
- Vaccination status: 22% vaccinated, among them 82% with two doses
- Covid-19: on average 6 different symptoms, the most frequent:
 - Headache (57%), Cough (56%), Muscle pain (47%), Fatigue (41%)
 - Asymptomatic: 9%

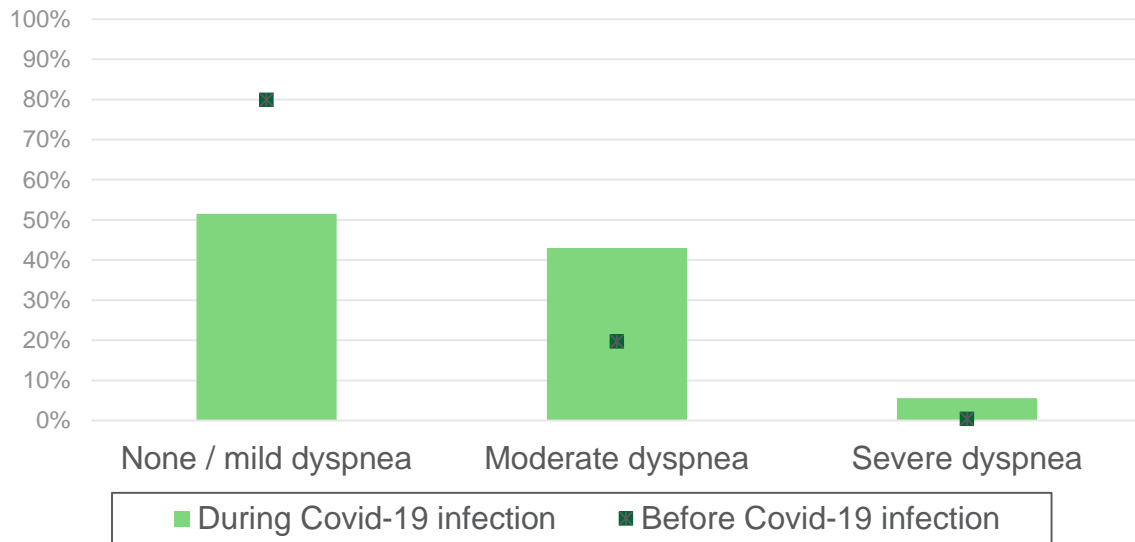
PRELIMINARY RESULTS

Situation before Covid-19 infection and in the days following

Change in shortness of breath

- Medical Research Council (MRC) dyspnea scale

Distribution of dyspnea severity categories before and during Covid-19 infection



		During infection n (%)		
		None / mild	Moderate	Severe
Before infection	None / mild	1397 (63,7)	714 (32,6)	82 (3,7)
	Moderate	16 (2,9)	467 (85,4)	64 (11,7)
	Severe	0 (0)	4 (36,4)	7 (63,6)

Change in shortness of breath

Factors associated with worsening dyspnea following Covid-19 infection :

- Lower level of education (OR=1,27, p=0,002)*
- Not having at least one dose of Covid-19 vaccine (OR=1,16, p=0,005)**
- Having a chronic respiratory disease before infection (OR=1,71, p=0,03)**

* adjusted for age and sex

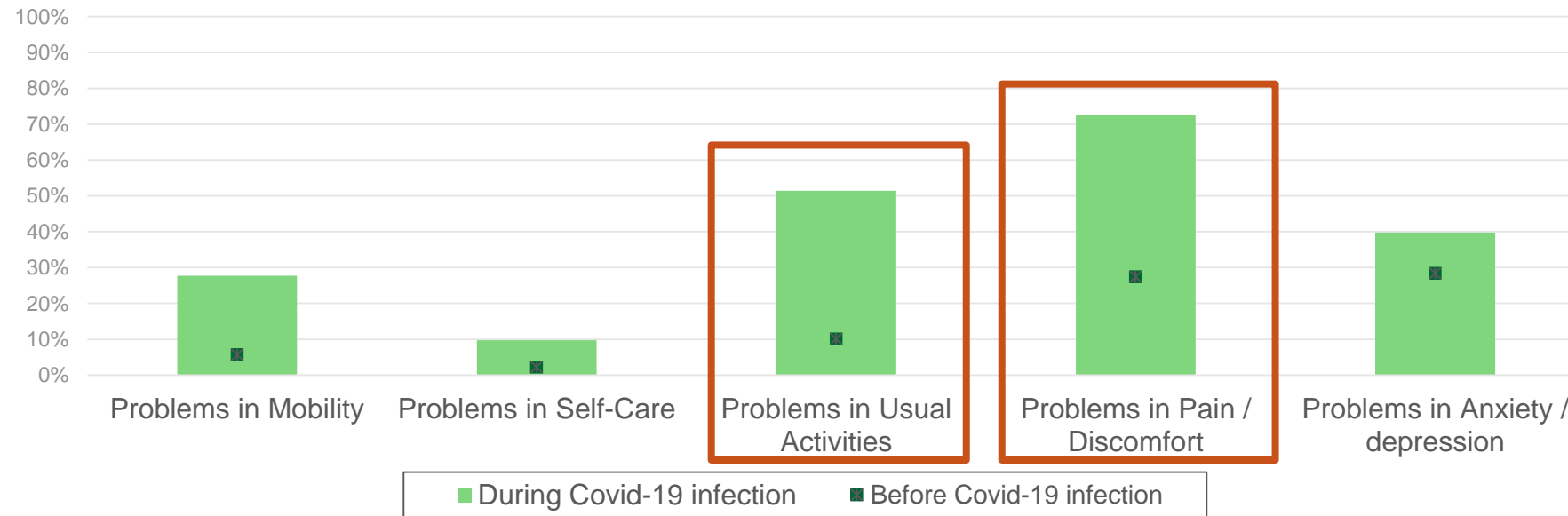
** adjusted for age, sex and education level

Change in Quality of Life

Average quality of life score (EQ-5D):

- Before infection: 87,6/100
- During infection: 72,5/100 } -15,1

Distribution of EQ-5D dimensions before and during Covid-19 infection



Change in Quality of Life

Covid-19 symptoms the most associated with a decline in quality of life* :

- General malaise (β -5,07, $p < 0,0001$)
- Severe fatigue (β -5,04, $p < 0,0001$)
- Muscle pain (β -3,35, $p < 0,001$)
- Respiratory difficulty (β -2,44, $p = 0,01$)

Main factors associated with a decline in quality of life* :

- Sex, women (β -2,37, $p = 0,002$)
- Living with child(ren) (β -3,42, $p = 0,009$)
- Not having at least one dose of Covid-19 vaccine (β -4,90, $p < 0,001$)
- Having a chronic respiratory disease before infection (β -4,73, $p = 0,02$)

Strengths / limitations / challenges

Strengths:

- Potentially large cohort with 2-year longitudinal follow-up
- Global approach to the long-term consequences of Covid-19 (health, mental health, social)

Limitations:

- Participation and selection bias
- Potential selection bias due to loss to follow up
- First data in early May 2021, currently no data during an acute phase of the pandemic

Challenge:

- Maintain the cohort and the participation of individuals over time

More results to come with follow-up data !

Thank you for your attention and do not hesitate to contact our team !

Contact:

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**Lifestyle and chronic diseases
Epidemiology and public health**