

COVID-19：關於重新開放學校並保持 學校安全，實證告訴了我們什麼？

Covid-19: What does the evidence tell us about reopening and
keeping schools open safely?

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第 1 部分：證據回顧

Part 1: review of evidence

三個確定的事實

Three solid facts

1. 學校應該是最後關閉和最先重新開放的地方之一

Schools should be among the last places to be closed and first to reopen

2. 在採取了全面的感染預防和控制措施的情況下，且當社區的感染狀況較低或中等時，學校重新開放沒有增加社區傳播

School reopening, with comprehensive infection prevention and control measures in place, and when the community infection levels were low or moderate, did not increase community transmission

3. 學校的執行機制涉及機構、環境和個人因素

Implementation mechanisms in schools involve institutional, contextual and personal factors



學校應該是最後關閉和最
先重新開放的地方之一

Schools should be among the last places to be closed and first to reopen

1

學校停課對於兒童及青少年的健康和教育影響

Impacts of school closures on health and education of children and young people

對教育的主要影響：核心科目的學習損失，大學升學率下降，社會經濟技能的差距擴大

Major impact on education: learning loss in core subjects, declines in college enrolment, increase in socioeconomic skills gap...

對生理、心理和社會發展和福祉的影響

Impact on physical, mental and social development and wellbeing

由於學校膳食的獲取、健康訪視、社會關懷及學校疫苗接種的機會受到限制，弱勢學童受到極大的影響

Restricting access to school meals, health visiting, social care and school-based vaccinations disproportionately impact children from disadvantaged backgrounds.

學校停課對學習和獲得服務的影響

Impacts of school closures on learning and access to services

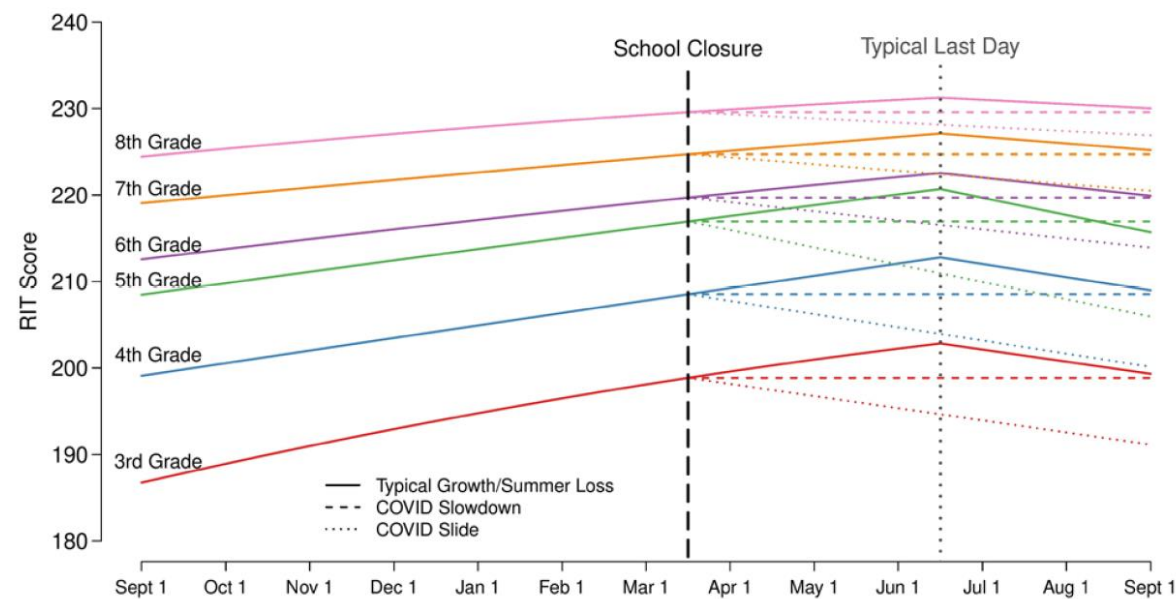
由於學校停課，PISA所測量的社會經濟技能差距數據可能增加超過30%以上

Socioeconomic skills gap measured using Programme for International Student Assessment data could increase by more than 30 percent due to the school closure.

在因COVID-19封鎖後的一個月，49%符合條件的學童沒有獲得任何形式的免費營養午餐

In the month following the COVID-19 lockdown, 49% of eligible children did not receive any form of free school meal..

Figure 1. Mathematics forecast



為了預防及控制疫情傳播的停課措施成效

School closure among the prevention and control measures

關閉學校不是控制傳播的最有力措施

Closing schools is not the most powerful measure to control transmission.

雖然關閉學校有助於降低新冠肺炎的傳播，但是在沒有其他介入的措施的情況下，停課本身並不足以防止COVID-19的社區傳播

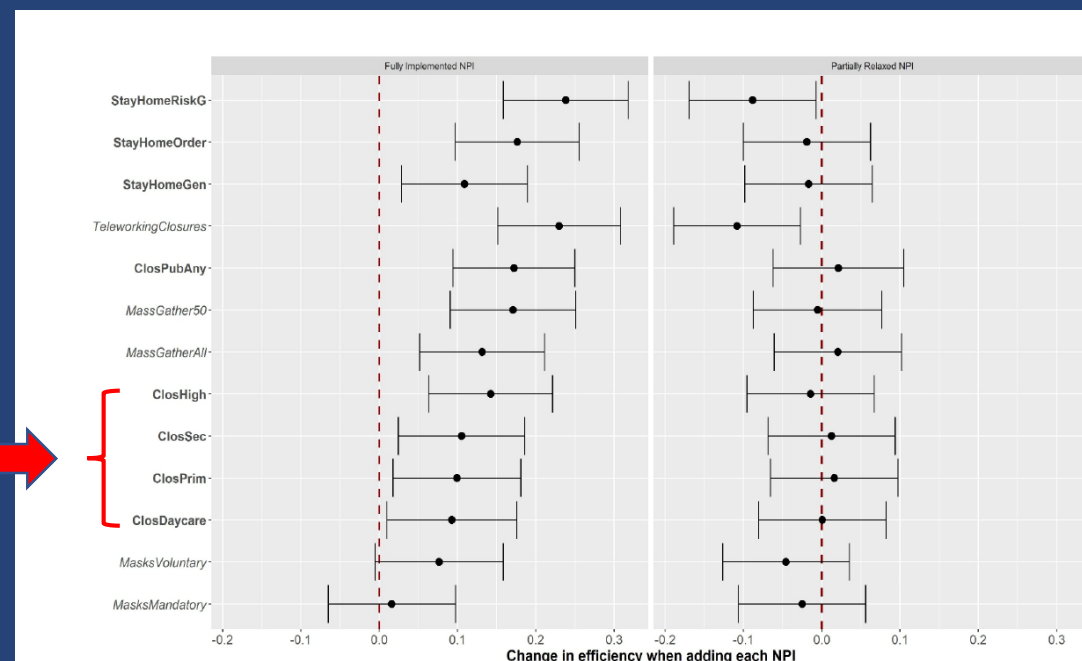


Figure 4: Additional PHR efficiency gained with NPIs implemented against COVID-19 in Europe. Results show the change in PHR efficiency over time when adding each of the 13 NPIs (mean adjusted effect and 95% confidence intervals in multivariate models). Results are disaggregated by level of implementation. A full description for each NPI is available in Table 1. Labels in X axis alternate between bold and italics to reflect different groups of NPIs.

School closures can contribute to a reduction in SARS-CoV-2 transmission, but by themselves are insufficient to prevent community transmission of COVID-19 in the absence of other interventions.

非藥物介入措施中的學校停課

School closure among the non-pharmaceutical interventions

研究顯示，在學校停課之前，已經有其他非藥物介入實施，且新冠肺炎的傳播率已經開始下降；而在瑞士及德國也發現傳播率的下降比例並未受到學校停課的影響

Studies showed that transmission started to drop following other NPIs, before school closures were implemented, and found no change in the gradient of decline after school closures in Switzerland and Germany.

這可能表示，由於最先實施的非藥物介入措施本身就對社會流動趨勢有廣泛的影響力，若學校停課措施最先執行或早於其他限制介入或許可以看到不同的影響

This may suggest school closures have different effects when implemented first, or on top of other restrictions, perhaps due to a broader signalling effect that the first implemented NPI has on societal mobility patterns.

新冠肺炎感染率與學校重新開放

SARS-CoV-2 infection rates and school reopening

在2020夏季初期，英國的新冠肺炎感染率非常低，但是於2020年8月開始攀升，最初是由年輕人開始，其次是中小學學童，但在學齡前兒童的變化不大

SARS-CoV-2 infection rates in England were very low during early summer 2020, but started to increase from August 2020, initially in young adults, followed by secondary and primary school-aged children, with little change in preschool-aged children.

這些感染率攀升開始於學校重新開放之前，並在各級學校中延續直到年底

These increases started before schools reopened and continued across all educational cohorts until the end of the year.

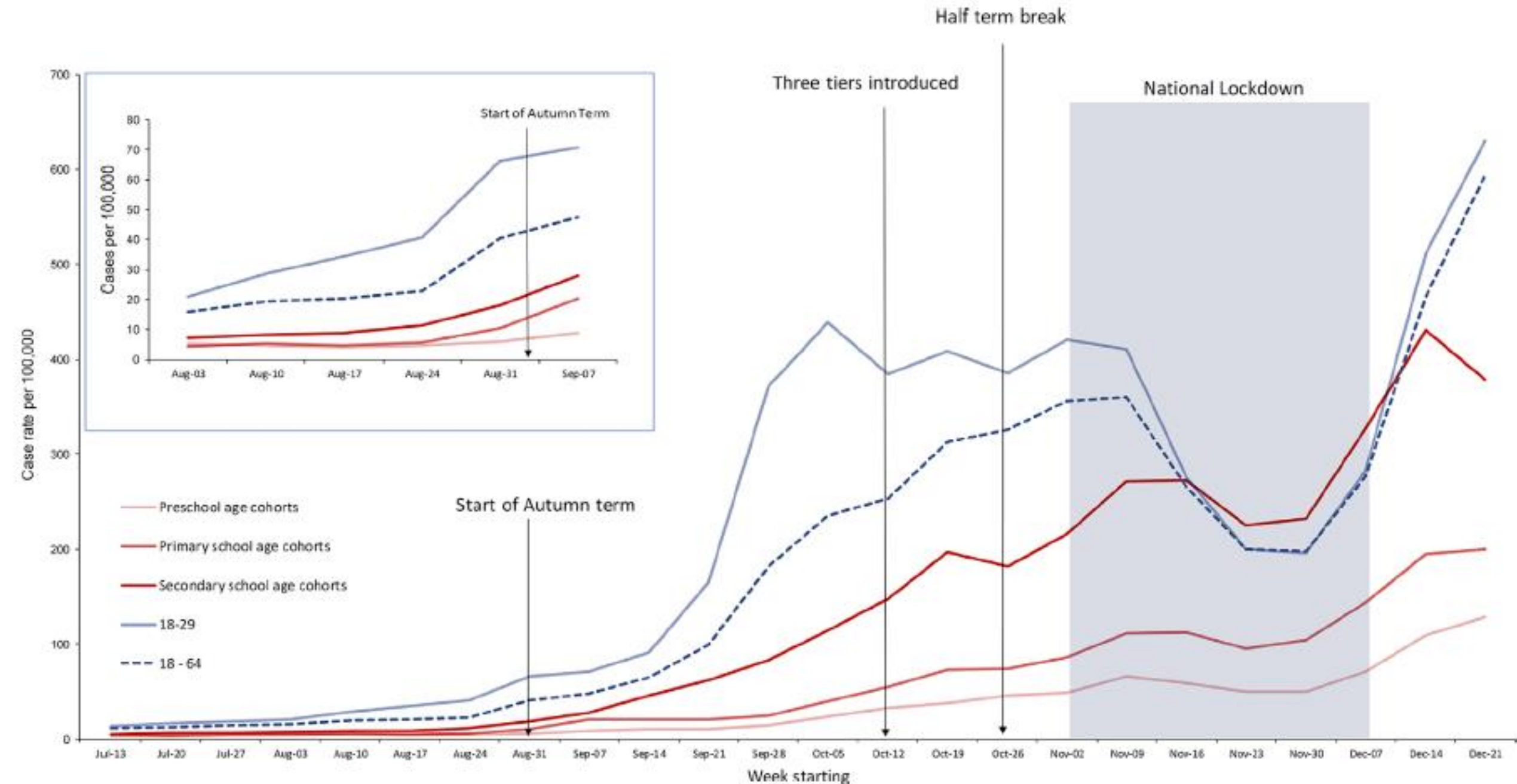


Fig. 1. Weekly infection rates of confirmed COVID-19 cases per 100,000 population per age cohort, England.

患有慢性病的年輕人重返學校

Return to School for Young People with Chronic Illness

哮喘、糖尿病、兒童
特異性關節炎或心理
健康問題...

Children and Young People with
Asthma, diabetes, juvenile arthritis or
mental health problems...



社會化及學習都是教育成功的關鍵組成

Both **socialization and learning** are key components of educational success

學校是所有兒童及青少年**健康與福祉**的最佳場所

Schools is the best situation for the **health and wellbeing** of all CYP

同儕接觸對於身體與大腦的健康發展至關重要

Peer contact is vital for healthy development of the body and brain

與家庭之外的**可信賴成年人**對話可以為大流行病帶來新的視角

Conversations with **trusted adults** outside the home can bring a new perspective to the pandemic.

Denying school to those who need it most to succeed, especially young people with NCDs, is a social disaster!

在採取了全面的感染預防和控制措施的情況下，
且當社區的感染狀況較低或中等時，學校重新開
放沒有增加社區傳播

School reopening, with comprehensive infection prevention and control measures in place, and when the community infection levels were low or moderate, did not increase community transmission

2

相對於成人，兒童和青少年對感染新冠肺炎的易感性

Susceptibility to SARS-CoV-2 Infection Among Children and Adolescents Compared With Adults

與其他呼吸道感染不同，兒童及青少年罹患COVID-19的風險比其他年齡層低很多

Unusually for a respiratory viral infection, children and adolescents are at much lower risk from symptomatic coronavirus disease 2019 (COVID-19) than any other age group.

整合分析顯示，有初步證據表明，兒童和青少年對COVID-19的易感性較低，相較於成人成為感染者的勝算比為0.56。

Most studies were consistent with lower seroprevalence in children compared with adults, although seroprevalence in adolescents appeared similar to adults.

Meta-analysis showed there is preliminary evidence that children and adolescents have lower susceptibility to SARS-CoV-2, with an odds ratio of 0.56 for being an infected contact compared with adults.

有微弱的證據，在人群層面上，兒童和青少年在COVID-19的傳播中發揮的作用比成年人小。

There is weak evidence that children and adolescents play a lesser role than adults in transmission of SARS-CoV-2 at a population level.

COVID-19感染率與學校重新開放

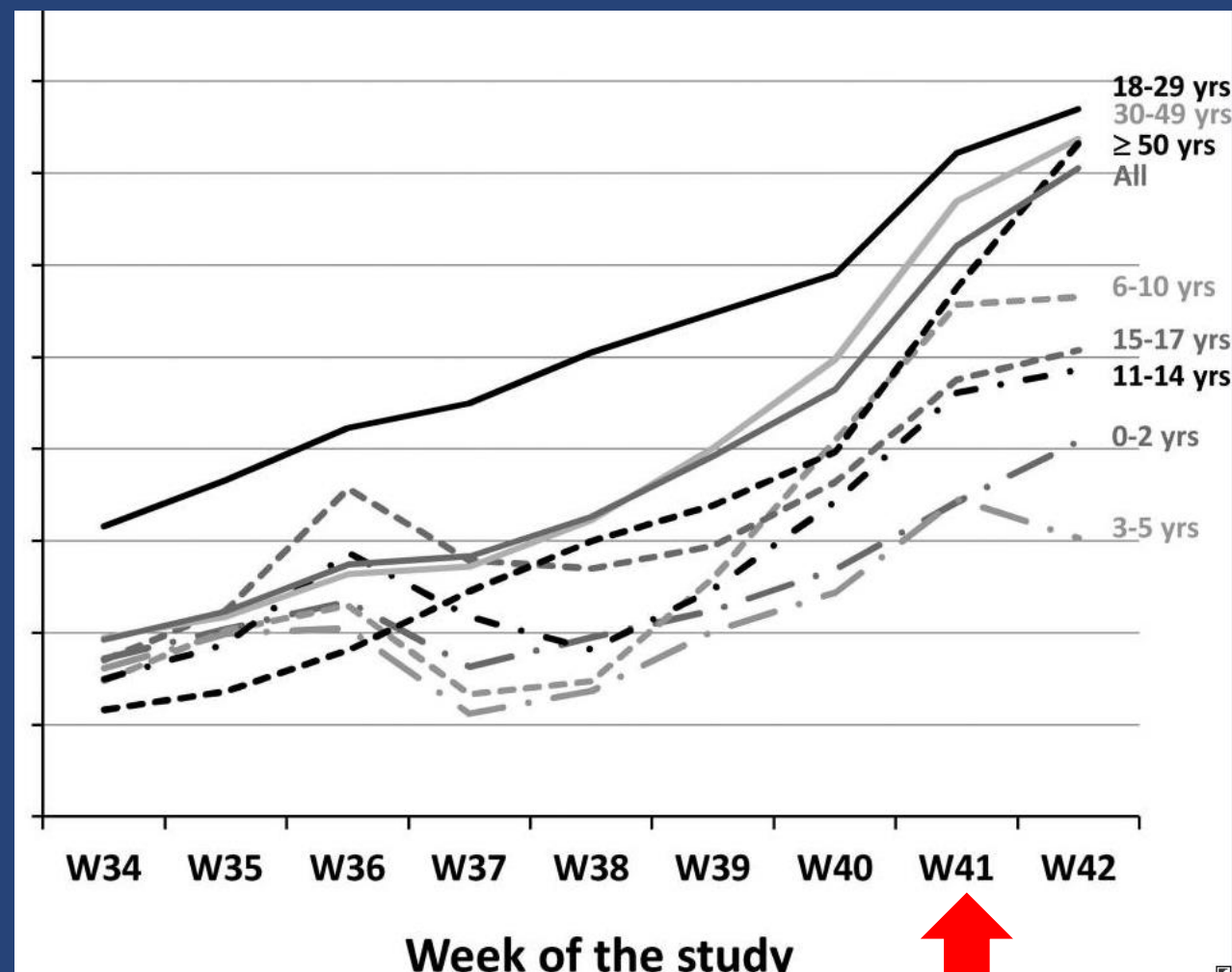
SARS-CoV-2 infection rates and school reopening

在學校重新開放後，學齡兒童的染病案例減緩並跟隨成年人的染病趨勢

Cases in school-aged children lagged behind and followed adult trends after schools reopened.

相較於青少年，年幼的兒童被感染的可能性更小

Younger children are less likely to be infected than adolescents.

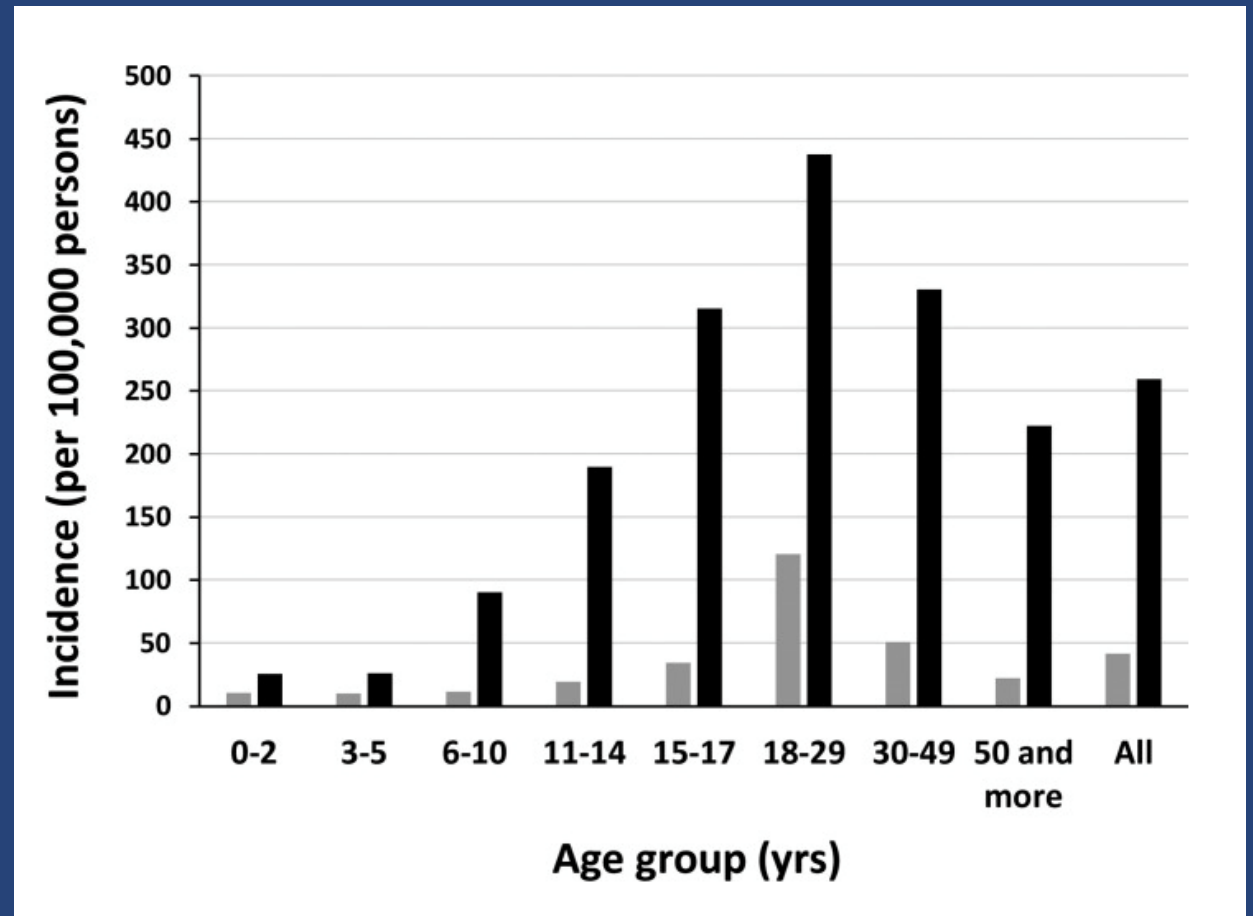


PCR陽性率、發病率與年齡有關

PCR positivity rate and incidence rate are age-dependent

於不同年齡組中的每週
COVID-19確診個案發病
率，第34週(灰柱)及第
42週(黑柱)如圖所示。

Weekly incidence of proven cases of COVID-19 in different age groups in week 34 (grey columns) and week 42 (black columns).



學校環境中的新冠肺炎傳播

SARS-CoV-2 transmission within the school setting

在美國大約3,000個郡當中1,854個郡的數據顯示，在COVID-19之新增住院人數每週少於36-44人(/每10萬人)的郡中，學校重新開放並未增加COVID-19住院人數(第75個百分位數的郡)

對於基線新住院總人數每週高於36-44人(/每10萬人)的郡，因為估計方法的不一致，因此沒有定論。

Data for 1,854 counties of the roughly 3,000 counties in the U.S

School reopenings have not increased COVID-19 hospitalizations in counties where there are fewer than 36 to 44 new COVID-19 county hospitalizations per 100,000 people per week. (the 75th percentile of counties),

For counties where total baseline new hospitalizations are above the 36-44 new hospitalizations per 100,000 per week, the estimates are inconsistent across methods and are therefore inconclusive.

學校重新開放對COVID-19住院的影響

The Effects of School Reopenings on COVID-19 Hospitalizations

如果不執行或不遵循防疫策略，在學校環境中會發生嚴重的二次傳播。

Significant secondary transmission can occur in school settings when prevention strategies are not implemented or followed.

對比實體教學和線上教學的COVID-19住院率，發現當基線住院率低等或中等時，進行實體教學並未影響COVID-19的住院率。(75%的縣)

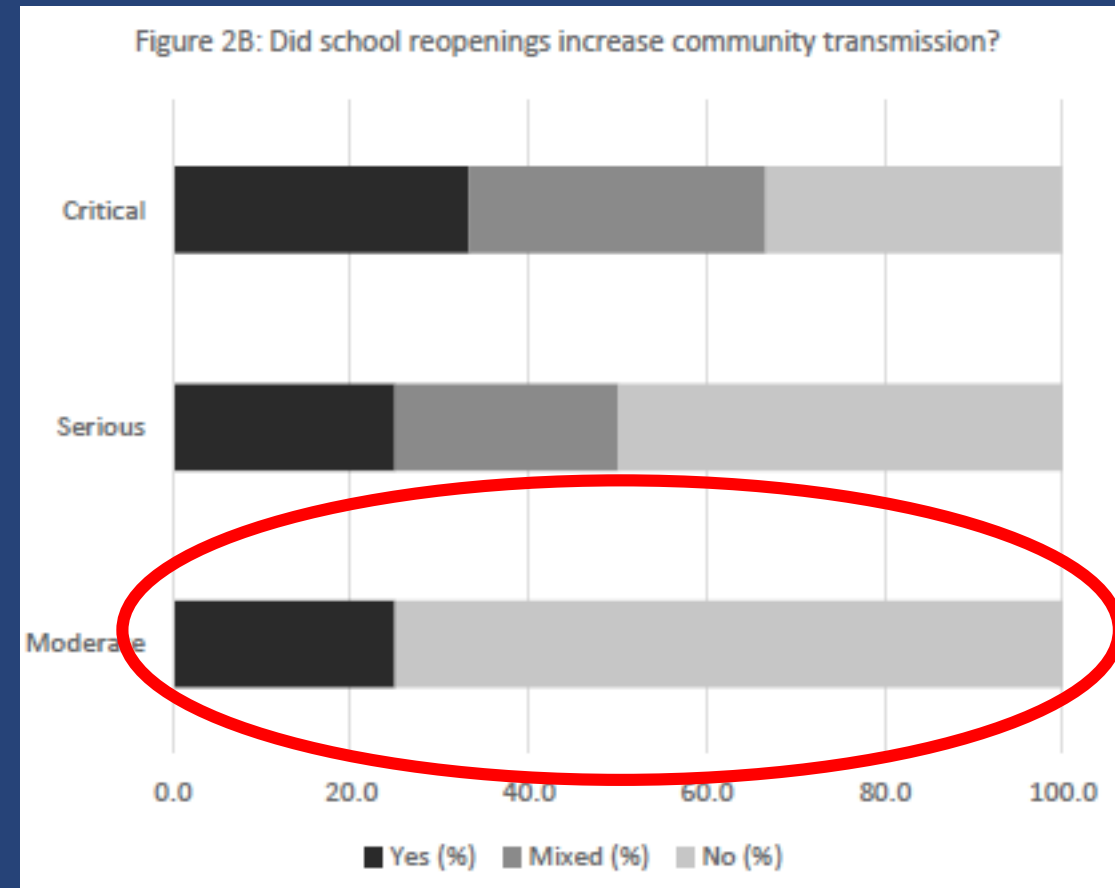
Comparing county-level COVID-19 hospitalizations between counties with in-person learning and those without in-person learning found no effect of in-person school reopening on COVID-19 hospitalization rates when baseline hospitalization rates were low or moderate (75% of the counties).

學校重新開放對社區傳播的影響

Influence of the reopening on community transmission

一份對觀察性研究的系統回顧表明，大多數研究報告認為，學校重新開放後採取廣泛的感染預防和控制措施，且當社區感染程度為低度或中度時，不會增加COVID-19的社區傳播。

A systematic review of observational studies showed most studies reported that school reopening, with extensive infection prevention and control measures in place and when the community infection levels were low or moderate, did not increase community transmission of SARS-CoV-2.



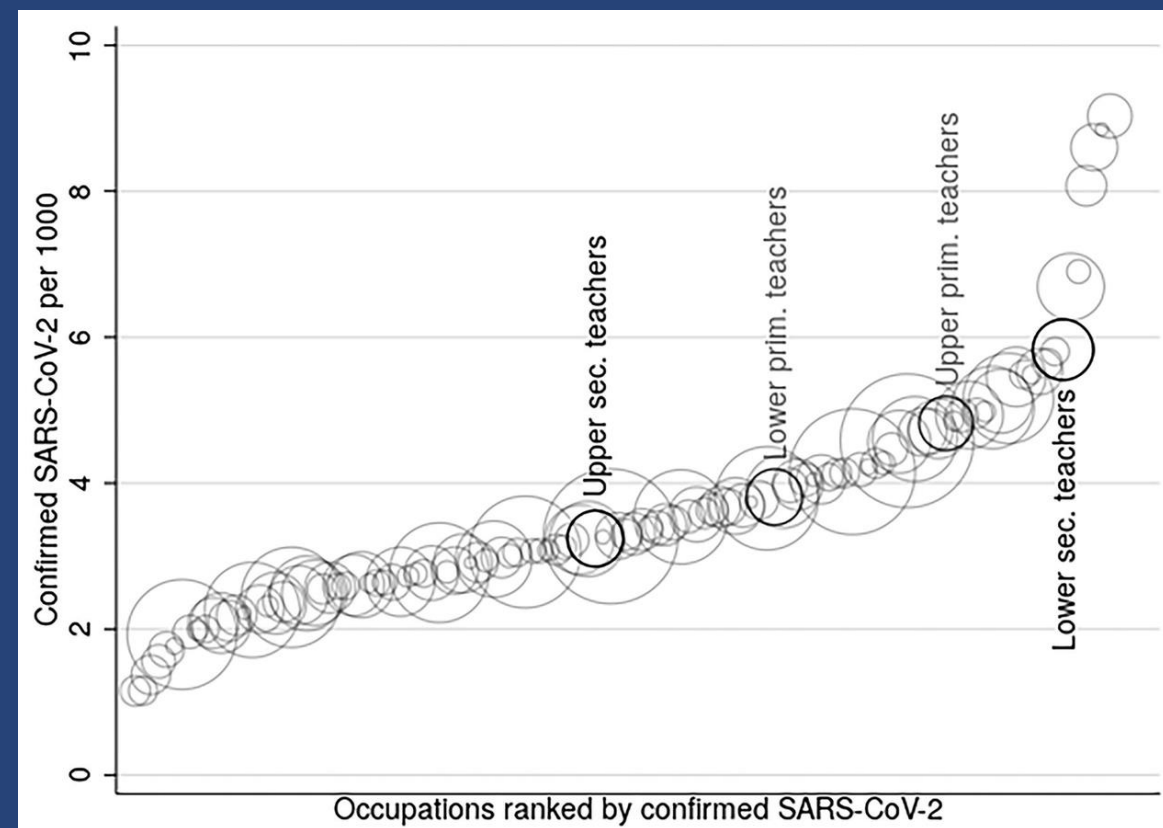
學校停課對教師感染新冠肺炎的影響

The effects of school closures on SARS-CoV-2 among teachers

與高中教師相比，國中教師的PCR確診感染率高兩倍[OR 2.01 ; CI95 1.52至2.67]。

這與醫療就診的COVID-19診斷結果[OR 2.01 ; CI95 1.45~2.79]和嚴重病例[OR 2.15 ; CI95 1.41~3.29]完全一致。

PCR-confirmed infection rate twice as high among lower-secondary teachers relative to teachers at the upper-secondary level [OR 2.01; CI95 1.52 to 2.67]. This is fully consistent with the results for COVID-19 diagnoses from healthcare visits [OR 2.01; CI95 1.45 to 2.79] and severe cases [OR 2.15; CI95 1.41 to 3.29].



學校停課對家長感染新冠肺炎的影響

The effects of school closures on SARS-CoV-2 among parents

PCR確診的COVID-19估計勝算比(OR)暴露在開放的學校會導致家長感染人數小幅增加

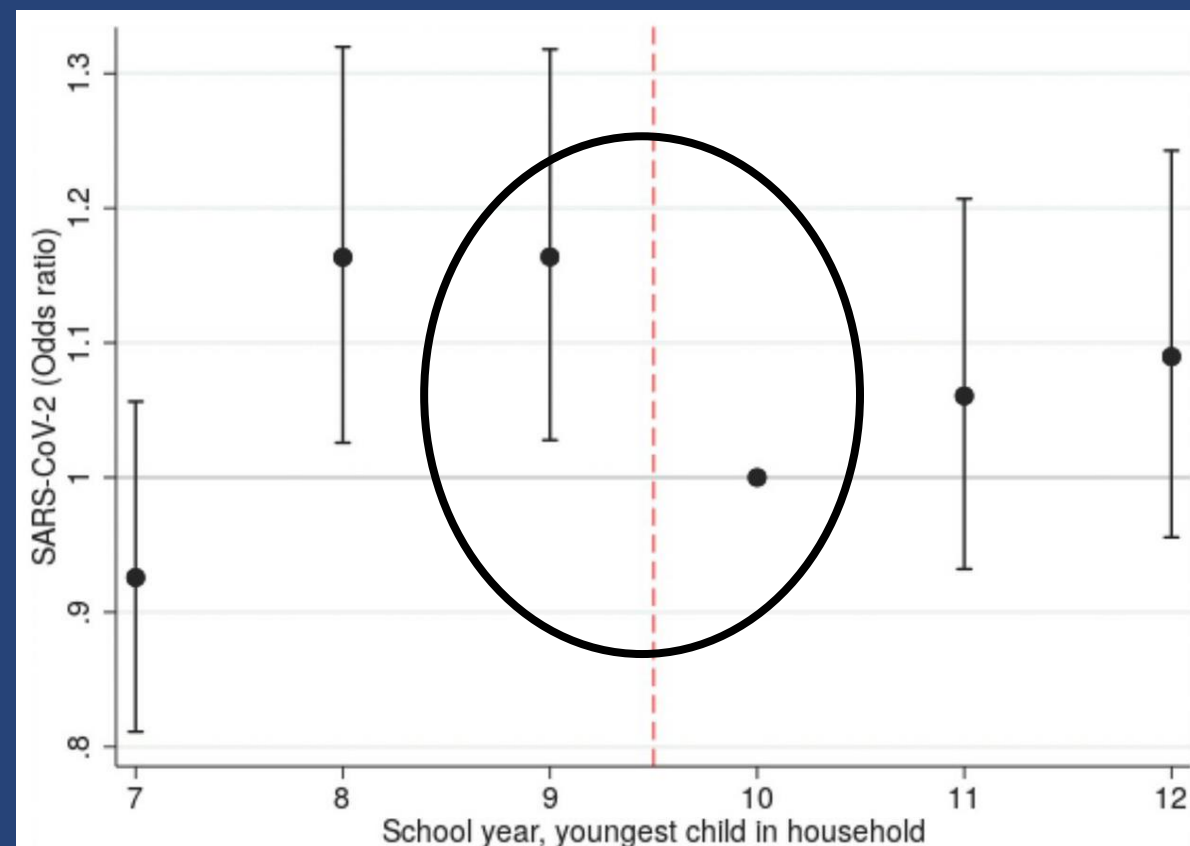
維持國中開放對於COVID-19在社會中的整體傳播影響較小

Estimated odds ratios (ORs) for PCR-confirmed SARS-CoV-2

Exposure to open schools resulted in a small increase in infections among parents

Keeping lower-secondary schools open had a minor impact on the overall spread of SARS-CoV-2 in society.

Vlachos et al. 2021 The effects of school closures on SARS-CoV-2 among parents and teachers



Open

Closed

學校的執行機制涉及機構、環境和個人因素

Implementation mechanisms in schools involve institutional, contextual and personal factors

3

Covid-19 指引

Covid-19 guidelines



學校和社區實施

Schools and communities practices



南非的疫情準備度差異

Variations in establishing material readiness in South Africa

	KwaZulu-Natal	Northern Cape	Estn Cape	Free State	Mpumalanga	Limpopo	North West	Gauteng	West Cape
Regulations received (yes)	43	46	44	66	60	62	65	59	89
Circuit Manager in touch (yes)	60	65	71	79	82	79	87	64	89
Adequate water for COVID cleaning (yes)	56	68	40	59	53	61	61	84	95
Needed water tanks delivered	19	2	6	34	14	12	9	19	17
All Offices cleaned	68	80	11	65	34	36	52	73	84
All Classrooms cleaned	55	64	9	41	23	30	47	68	76
Enough cleaning material available (surfaces, several times a day)	68	69	23	71	22	41	48	53	80
Sanitation facilities with soap and water	51	72	20	70	26	45	51	70	84
Face Masks available– 2 per person	22	30	2	9	13	3	4	25	84
Sufficient hand sanitizers available	87	84	7	77	25	69	42	40	87
Discussion with SGB	57	32	48	72	38	65	75	69	80

Readiness below 50%

Readiness between 50 and 80 %

Readiness above 80%

預防措施的實施

The implementation of preventive measures

幾乎所有政府都為學校制定或批准了具體的健康、衛生指引的措施

Nearly all governments produced or endorsed specific health and hygiene guidelines and measures for schools.

只有大約一半的低收入和中收入國家回報擁有足夠的資源，而中高收入國家的這一比例為80%，高收入國家的比例為95%

Only around half of low-income and lower-middle income countries reported having enough resources, in comparison to 80 per cent of upper-middle-income countries and 95 per cent of high-income countries.

預防措施的實施

The implementation of preventive measures

工作人員的承諾和利益相關者之間的溝通促進了措施的實施，但由於所接受的指導、物質環境、資源、家長的堅持、平衡健康促進措施與學習的限制而受到阻礙。

Implementation was facilitated by staff commitment and communication among stakeholders, but hampered by limitations with guidance received, physical environments, resources, parental adherence and balancing health promotion measures with learning.

研究表明，有三個主要因素影響教師採用新做法：機構、個人和環境。

Research shows 3 main factors influences the adoption of new practices by teachers: institutional, personal and contextual.

預防措施的實施

The implementation of preventive measures

支持每所學校將健康問題納入其管理和教學是當務之急。

Supporting every school to integrate health issues into their management and teaching is a priority.

此類學校政策應包括以下基本要素：

Such school policy should include the basic elements of:

保護

預防

教育

全球性的調查（42個國家）

A survey at a global level (42 countries)

有學校重新開放的指引並優先考慮健康和衛生措施

Guidance available for re-opening schools prioritises health and hygiene measures

與當地利益相關者之間的合作對成功至關重要

Co-operation between local stakeholders is vital for success

卻很少提及當地醫療服務提供者

Scarce mention of local health providers

對不平等擴大的擔憂，包括指引的可用性

Concern about widening inequalities, including availability of guidance

資源的可用性亦不同

Availability of resources is variable

對於關閉和重啟學校的良好實施方式需要被分享

Sharing of good practice is needed about closing and re-opening





結論

Conclusion

1. 減少學校中的傳播是一項共同的責任，需要結合有效的預防策略-堅持的能力與承諾來實施

Reducing transmission in schools is a shared responsibility and needs a combination of effective prevention strategies - implemented with the ability and commitment to adhere to them.

2. 有力的執行策略植基於每所學校中教育者的參與、技術的提供與教學資源。

Strong implementation strategies based on educators' involvement and the provision of technical and pedagogical resources in each school is necessary.

Part 2:世界衛生組織與聯合 國教科文組織TAG 給予之建議

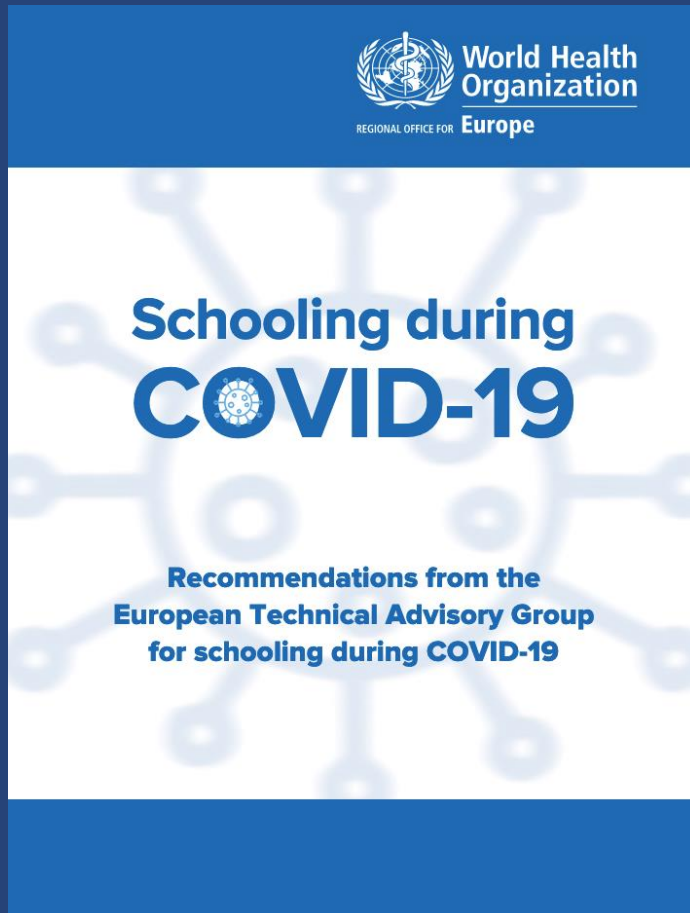
Part 2: TAG recommendations

COVID-19疫情下健康促進學校之未來趨勢

The future development or trends on HPS among covid-19 context

世界衛生組織與聯合國教科文組織TAG

- WHO and UNESCO TAG



<https://www.euro.who.int/en/health-topics/Life-stages/child-and-adolescent-health/publications/2021/schooling-during-covid-19-recommendations-from-the-european-technical-advisory-group-for-schooling-during-covid-19,-24-march-2021>

8 項關鍵議題與建議

8 key issues and recommendations

COVID-19疫情下健康促進學校之未來趨勢

The future development or trends on HPS among covid-19 context

Children and adolescents in schools are not considered primary drivers of transmission of SARS-CoV-2	2
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學校中的兒童與青少年並非SARS-COV-2的主要傳播者

議題一、維持學校開放是關鍵目標

議題二、學校中的篩檢策略

議題三、風險緩解措施應用對感染控制的效果

議題四、教育成效、心理和社會福祉

議題五、弱勢族群之兒童

議題六、對感染控制和兒童健康整體可能有益之學校環境變化

議題七、兒童和青少年參與決策決定

議題八、以維持教育之社會福祉為目的之疫苗接種策略

議題一、維持學校開放是關鍵目標

Key Issue 1.
Keeping schools open is a key objective

The TAG supports the above and advises that:

- schools should be among the last places to be closed, as school closures have been shown to be detrimental to child health and well-being and educational outcomes;
- if large outbreaks occur or transmission in the community cannot be controlled by any other measures, reactive school closures may be considered as a last resort; and
- measures to control transmission of SARS-CoV-2 in school settings should be specific to the needs of different age groups.

- 學校應該是最晚關閉的地方之一，因為學校停課已經證明不利於兒童的健康和福祉以及教育成果。
- 如果發生大規模疫情或社區內的傳播無法通過任何其他措施進行控制，反應性關閉學校可能被視為最後的手段。
- 應針對不同年齡群的需求，在學校環境中採取控制SARS-CoV-2傳播的措施。

議題二、學校中的篩檢策略

Key issue 2.
Testing strategy
in the school setting

The TAG supports the above and advises that:

- the value of widespread rapid diagnostic antigen tests in school settings in terms of opening schools and controlling transmission needs to be determined;
- testing should be prioritized for symptomatic children with acute respiratory infection of any severity if they belong to a vulnerable group, risk group or are in a special situation with a high risk of further spread, but asymptomatic high-risk exposure (close) contacts of cases should also be considered for testing;
- cluster investigation in children in school settings should be organized in a way that enables continuity of learning; and
- routine temperature or symptom checking in schools should be avoided, as no evidence is available to support their use.

- 需要確定在學校環境中廣泛使用的快速篩檢抗原測試在開放學校和控制傳播方面的效果。
- 患有任何嚴重程度的急性呼吸道感染的有症狀兒童，如果屬於弱勢族群、高風險群體、處於進一步傳播的高風險中的特殊情況，應優先進行檢測。另外無症狀的高危險暴露（密切）接觸者，則應該也考慮對其進行檢測。
- 在學校環境中對兒童進行的群體檢查應該以能夠不中斷學習的方式有組織的進行。
- 應避免在學校進行常規體溫或症狀檢查，因為沒有合理性的實證支持。

議題三、風險緩解措施應用對感染控制的效果

Key issue 3.
Effectiveness of applied risk-mitigation
measures on infection control

The TAG supports the above and advises that:

- schools should have a risk-mitigation strategy in place; countries should ensure these strategies carefully balance the likely benefits for, and harms to, younger and older age groups of children when making decisions about implementing infection prevention and control measures;
- all the above needs to be balanced with the even worse alternative of schools being closed;
- any measure introduced by schools should follow standard protocols for implementation; and
- countries should review the package of measures regularly and update according to emerging evidence; measures deemed to have no effect or to be harmful should be discontinued, and all measures should be equity-proofed.

- 學校應制定風險緩解策略。各國應確保這些策略在制定實施感染預防和控制措施的決定時，謹慎衡量對不同年齡層兒童可能帶來的益處和危害。
- 戴口罩、勤洗手、範圍消毒等所有措施都需要與更糟糕的選擇如關閉學校，互相進行平衡比較。
- 學校採取的任何措施都應遵循標準協議實施。
- 各國應定期審查一系列措施並根據新出現的證明進行更新，應停止被視為無效或有害的措施，所有措施均應以平等為依據。

議題四、教育成效、心理和社會福祉

Key issue 4.

Educational outcomes, mental and social well-being

The TAG supports the above and advises that:

- when closing schools, countries need to guarantee substitute services for those normally delivered in the school setting, such as health services and school meals, where possible;
- countries should guarantee access to devices and facilities required for online learning, including functioning Internet connections for schoolchildren and teachers, regardless of whether schools are closed or open; and
- countries should establish hotlines for children and adolescents seeking psychological support.

- 在關閉學校時，各國需要保證，盡可能為通常學校中提供的服務提供替代，例如健康服務和學校營養午餐。
- 各國應保證提供線上學習所需的設備和設施，包括為學童和教師提供有效的網路連接，無論學校是關閉還是開放的。
- 各國應為尋求心理支持的兒童和青少年設立專人熱線。

議題五、弱勢族群之孩童

Key issue 5.
Children in vulnerable situations

The TAG supports the above and advises that:

- countries should provide additional support to schools in deprived areas and for children living in vulnerable situations;
- schools should implement additional measures to further protect children in socially vulnerable situations, including direct outreach to those at risk of dropping out of school;
- living in a vulnerable situation (and lack of access to computers and the Internet at home) should be among the criteria for allowing some children to continue to be physically present in schools when it is necessary to switch to hybrid schooling or full online learning;
- on-site schooling should include education and not consist solely of supervision; and
- children with pre-existing health conditions should not routinely be excluded from on- site schooling, but rather be assessed individually for their specific risk.

- 各國應為貧困地區的學校和生活在弱勢環境中的兒童提供額外支持。
- 學校應採取額外措施，進一步保護處於社會弱勢地位的兒童，包括直接接觸有輟學風險的兒童。
- 處於弱勢族群的兒童（並且在家中無法使用電腦和網路），應在學校的標準下，在有必要轉為混合線上教育或完全線上學習時，允許一些兒童繼續留在學校。
- 現場教育應包括教育，而不僅僅是監督。
- 已有健康狀況的兒童不應經常被排除在學校就讀，而應單獨評估他們的具體風險。

議題六、對感染控制和兒童健康整體可能有益之學校環境變化

Key issue 6.

Changes in the school environment that are likely to be of overall benefit to infection control AND child health

The TAG supports the above and advises that:

- countries should use their health promoting school networks to ensure sustained improvement in the school environment throughout the pandemic, and develop a strategy for preparedness for future outbreaks;
- students, parents, teachers and other school staff should be involved actively in deciding at school level what risk-mitigation measures are feasible in their daily context;
- countries should ensure that a sufficient number of teachers are hired to reduce class sizes, which will serve to improve infection control as well as child health and educational outcomes;
- countries should ensure optimal collaboration between teaching staff and health and social workers;
- schools should improve their infrastructure and associated maintenance, including ensuring handwashing facilities with running water and reliable supplies of, for instance, soap, sufficient and adequate toilet facilities and fresh-air ventilation; and
- schools should ensure that students, parents, teachers and other school staff are empowered to implement the measures while being able to deliver their core functions.

- 各國應利用其健康促進學校網站來確保在整個疫情期間持續改善學校環境，並制定應對未來突然爆發疫情的策略。
- 學生、家長、教師和其他學校工作人員應積極參與在學校層面決定哪些風險緩解措施在他們日常環境中是可行的。
- 各國應確保聘用足夠數量的教師以減少班級規模，這將有助於改善感染控制以及兒童健康和教育成果。
- 各國應確保教學人員與公共衛生工作者之間的最佳合作。
- 學校應改善其基礎設施和相關維護，包括確保洗手設施有自來水和足夠供應，例如肥皂、足夠的廁所設施和新鮮空氣通風。
- 學校應確保學生、家長、教師和其他學校工作人員有能力實施這些措施，同時能夠履行其核心職責。

議題七、兒童和青少年參與決策決定

Key issue 7.

Children's and adolescents' involvement in decision-making

The TAG supports the above and advises that:

- countries are urged to recognize children's and adolescents' perspectives and give weight to their voices in relation to schooling and interventions during the pandemic;
- children and adolescents from different age groups and all backgrounds should be asked to provide their perspectives on the measures affecting them and whether they are helping them;
- children and adolescents should be involved actively in the decision-making process at school; and
- youth organizations should be involved in these processes.

- 敦促各國在疫情期間認識兒童和青少年的看法，並重視他們在學校教育和介入方面的聲音。
- 應要求來自不同年齡層和所有背景的兒童和青少年針對影響他們的措施，以及是否正在幫助他們提出看法。
- 兒童和青少年應積極參與學校的決策過程。
- 青少年組織應參與這些過程。

議題八、以維持教育之社會福祉為目的之疫苗接種策略

Key issue 8.

Vaccination strategies with the purpose of maintaining education as a societal good

The TAG supports the above and advises that:

- vaccine trials are needed urgently with respect to children of all ages so that vaccination strategies can be refined;
- research should seek to determine the positive impact that vaccination programmes for children and young people can have on a full range of health, social and educational outcomes;
- national vaccination strategies should ensure teachers and other professionals working in schools are considered when prioritizing access to COVID-19 vaccinations; and
- vaccination strategies should consider how they can support schools to be open longer, maintaining positive education outcomes while minimizing and preventing negative mental and social outcomes.

- 迫切需要針對所有年齡層的兒童進行疫苗試驗，以便完善疫苗接種策略。
- 研究應證實兒童和青少年的疫苗接種計劃對健康、社會和教育的全方位結果可能產生的積極影響。
- 國家疫苗接種策略應確保考慮在學校工作的教師和其他專業人員優先獲得新冠肺炎疫苗接種。
- 疫苗接種策略應考慮如何支持學校開放更長時間，保持積極的教育成果，同時最大程度減少和防止負面的心理和社會結果。

Part 3: 疫情之中重新開放學校

Part 3: Reopening schools during the pandemic

五項關鍵要點

Five key principles

1. 階段式開放學校 Reopen schools in a staged fashion
2. 確保社交距離 Incorporate social distancing
3. 確保學校有疫情控制措施，包括篩檢和落實足跡追蹤
Ensure infection control measures including testing and contact tracing are available in schools
4. 保護教師和弱勢學生 Protect teachers and vulnerable students
5. 研究 Research

Reopening schools during the COVID-19 pandemic: governments must balance the uncertainty and risks of reopening schools against the clear harms associated with prolonged closure


Russell M Viner ¹, Christopher Bonell,² Lesley Drake,³ Didier Jourdan,⁴ Nicolette Davies,⁵ Valentina Baltag,⁶ John Jerrim,⁷ Jenny Proimos,⁸ Ara Darzi⁵

Table 1 Strategies for reopening schools

1. Reopen schools in a staged fashion.

A number of countries have reopened kindergartens and primary schools first (Denmark and Norway).

2. Incorporate social distancing.

Across the school

- ▶ Close playgrounds or social distance within playgrounds, for example, single-class groups in playground at a time, implementing social distancing during play.
- ▶ Stagger school start times and period changes for year, to avoid years mixing and to reduce social contacts in corridors.
- ▶ Stop all communal activities, for example, dining, assemblies and sports.
- ▶ Ensure social distancing on school buses and other transports.
- ▶ Split school into halves so that only half the years attend at one time. This could be half-days (some years in the morning, some in the afternoon, with no mixing), alternating full days or alternating weeks (half the students attend every second week).
- ▶ Keep children in constant class groups to reduce range of contacts.
- ▶ Keep all books or equipment at school to reduce potential for transmission through surfaces. Avoid sharing of equipment between children.

Within-year groups

Split each year so that half the classes in a year attend at a time. Again this could be half-days, alternating full days or alternating weeks or fortnights. Fortnights may be epidemiologically more effective at disrupting transmission.

Within classes

- ▶ Split classes so that only half of each class (or a maximum of 15–20 students) attend at any one time. Splits could be half-days, full days or weekly.
- ▶ Physical social distancing within classes, separation of desks by 1–2 m; physical barriers between desks have been implemented in some countries.

3. Infection control, testing and tracing.

- ▶ Institute hygiene practices, both personal (handwashing) and institutional (regular cleaning of surfaces) and education of students in hygiene and infection control.
- ▶ Testing and tracing of contacts of positive cases.
- ▶ Isolation of suspected cases in students and staff.
- ▶ National and regional class and school closure policies, depending on infection burden in students.

4. Protect teachers and vulnerable students.

- ▶ (Re)institute programmes to support vulnerable children before schools reopen and continue them during reopening.
- ▶ Encourage older or medically vulnerable teachers to provide administrative support or virtual teaching.
- ▶ Social distancing for teachers within classrooms.
- ▶ Basic protective equipment for teachers.
- ▶ Wearing of face masks: the WHO currently does not recommend wearing of face masks in community settings but recognises current uncertainty and that some countries recommend them.

5. Research and evaluate.

(翻譯在下頁)

1. 階段式開放學校：有些國家最先開放了幼兒園和小學（丹麥和挪威）。

2. 確保社交距離

整個學校：

- 關閉操場或維持操場內的社交距離，例如，每次只有一班在操場上，玩耍期間實施社交距離。
- 錯開各年級的開學時間和時期變化，以避免年級混合，並減少走廊中的社交接觸。
- 停止所有全體活動，例如餐飲、聚會和運動。
- 確保校車和其他交通工具上的社交距離。
- 將學校拆成兩部分，輪流參與半個學期（分流）。可以是半天（有些年級在早上、有些在下午，沒有混合）、分流的全天或輪流的幾週（一半的學生每兩週參與一次）。
- 將兒童保持在固定的班級組中，以降低接觸範圍。
- 將所有書籍或設備放在學校中，以減少通過表面傳播的可能性。避免兒童之間共用設備。

以年級分組：

- 將每個年級拆成兩組，以便一年中的課程輪流參與。同樣，這可能是半天，交替的全天或分流的幾週或兩週。兩週在流行病學上能更有效地破壞傳播。

以班級分組：

- 班級分散，不管何時每班都只有一半（或最多 15-20 名學生）參與課程。分流可以是半天、全天或每週。
- 班級內保持社交距離，課桌間隔 1-2 m；有些國家已經實施了桌子之間的物理防護板。

3.確保學校有疫情控制措施，包括篩檢和落實足跡追蹤

- 學校衛生習慣，包括個人（洗手）、機構（定期表面清潔）和學生的衛生和感染控制教育。
- 檢測和追蹤確診病例的接觸者。
- 隔離學生和教職員工的疑似病例。
- 全國和地區的班級和學校停課政策，取決於學生的確診情況。

4. 保護教師和弱勢學生

- （重新）制定在學校重新開放之前支持弱勢兒童的計劃和在重新開放期間繼續計畫。
- 鼓勵向年長或身體虛弱的教師提供行政支持或虛擬教學。
- 課堂內教師維持社教距離。
- 提供教師基本防護用品
- 戴口罩：世界衛生組織目前不建議在社區環境中戴口罩，但意識到當前的不確定性，有些國家仍建議戴口罩。

5. 研究和評估

在 Covid-19 大流行期間重新開放學校：政府必須在重新開放學校的不確定性和風險與長期關閉學校的明顯危害之間取得平衡。

Part 4: 針對學校推廣學校政策

Part 4: Toward health promoting school policies

學校健康政策

School health policies

為了改善人口的健康並減少不平等現象，必須致力於健康保護（健康環境、服務取得）、預防健康風險（針對導致疾病的因素採取行動）和健康教育（使每個人都能掌握知識和技能，使他們能夠做出負責任的健康選擇）。

In order to improve the health of a population and reduce inequalities, it is essential to engage in a determined commitment to health protection (healthy environments, access to services), prevention of *health risks (action on the factors that cause diseases) and health education (enabling everyone to master the knowledge and skills that enable them to make responsible health choices).*

對於促進健康福祉以及預防非傳染性疾病和傳染病而言，這通常是正確的方法。

This is generally true both for the promotion of health and well-being and for the prevention of non-communicable diseases and infectious diseases.

學校健康政策

School health policies

流行病管理並不是中小學其他健康問題單獨的組成部分。
是整合保護、預防和教育組成三部分的健康促進政策的維度之一。

Epidemic management is not an isolated component of other health issues at the primary and secondary school levels.

It is one of the dimensions of a health promotion policy that integrates the components of protection, prevention and education.

- | | |
|-------------------------|---|
| 1. 定義學校層面，與學生福祉和健康的明確政策 | 1. definition of an explicit policy on the well-being and health of students at the school level in relation to the territory |
| 2. 結合學校物理環境 | 2. integrated approach to the physical environment of the school |
| 3. 教育界內的正向關係（學校氛圍） | 3. positive relations within the educational community (school climate) |
| 4. 通過整個學校的健康教育發展個人技能 | 4. development of individual skills through health education throughout schooling |
| 5. 與家庭和學校合作夥伴存在堅固和持久的聯繫 | 5. existence of structured and lasting links with families and school partners |
| 6. 獲得學校衛生服務之管道。 | 6. access to school health services. |

學校健康政策

School health policies

健康教育：為每個學生提供知識、技能和文化，以自主和負責的方式管理自己的健康，並參考學校開放的目標。健康教育即公民教育的組成部分之一。

Health education: to provide each student with the knowledge, skills and culture to take charge of his or her own health in an autonomous and responsible manner, with reference to the emancipatory mission of the school. Health education is one of the components of citizenship education;

預防：在每所學校和每個機構實施預防項目，重點關注主要健康問題、傳染病以及所有可能對學業產生影響的問題。

Prevention: implement in each school and in each establishment prevention projects focused on priority health issues, infectious diseases but also all those likely to have an effect on academic success;

保護：創造一個有利於所有學生健康和學業優良的安全學校環境

Protection: creating a safe school environment conducive to the health and academic success of all students.

學校健康政策

School health policies

保護 (場所的衛生和通風、衛生設施的維護、肥皂和合適的乾燥雙手方法的可用性、在緊急情況下能與家人或親近關係聯繫，並能聯繫社工、護士和學校醫生、緊急電話號碼、交通計劃，以確保流行病爆發時隨機應變臨時和局部隔離封閉的準備.....)

Protection (hygiene and ventilation of the premises, maintenance of sanitary facilities, availability of soap and suitable hand drying means, ability to contact families in the event of an emergency, relationship followed and means of contacting social workers, nurses and school doctors, emergency numbers, traffic plans, preparation for a temporary and localized closure in the event of an epidemic outbreak...)

預防 (教職員工、學生、家庭、學校合作夥伴之間的預防措施，例如發布的各種流行病的訊息、一般說明、疫苗接種.....)

Prevention (culture of prevention among staff, students, families, school partners, information relating to the various possible epidemics by posting, general instructions, vaccination...)

教育 (與身體相關的知識和技能，媒體教育.....)，

Education (knowledge and skills related to the bod, media education...),

學校健康政策

School health policies

準備好...

To be prepared...

支持每所學校，使他們能夠將健康問題長期納入管理和教學中。要做到這一點，有必要在了解健康決定因素和導致不平等因素的基礎上，分享新的健康政策，並確保明確整合到學校的管理中。

Support each school to enable them to integrate health issues into both management and teaching in the long term. For this to happen, it is necessary to share a renewed culture of health based on a knowledge of the determinants of health and those that condition inequalities. It is then to ensure that the health component is explicitly integrated into the management of the school.

為了在地方政府做出決定，有必要與教師、專門從事學生教育的衛生專業人員分享他們的專業知識。區域和地方政府的培訓和支持機制的發展也是一個必要條件。

In order for decisions to be taken at the local level, it is essential that, alongside teachers, health professionals specializing in the schooling of students can share their expertise. The development of training and support mechanisms at regional and local level is also a necessary condition.



提供具體解決方案，不製造新問題

Offering concrete solutions, nor
creating new problems

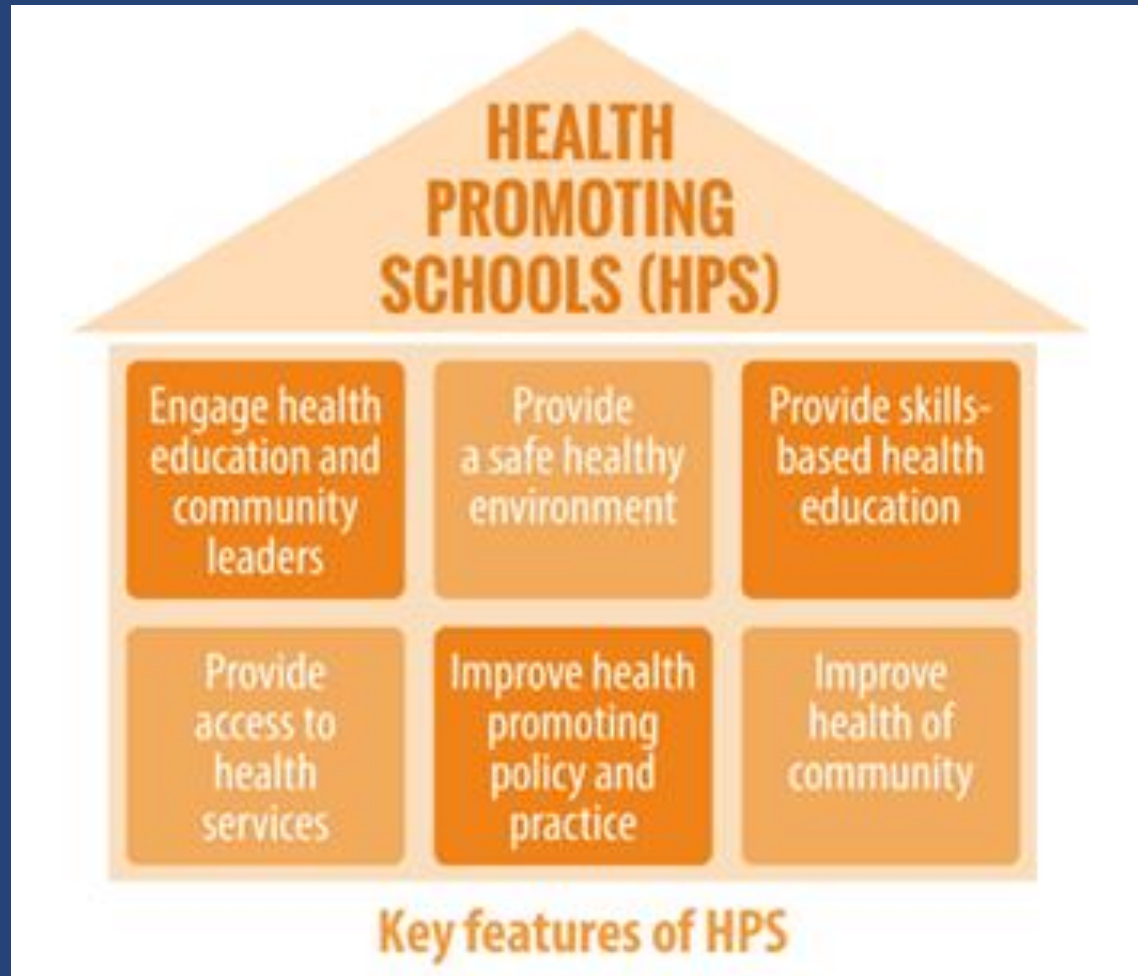
A need for coherence...

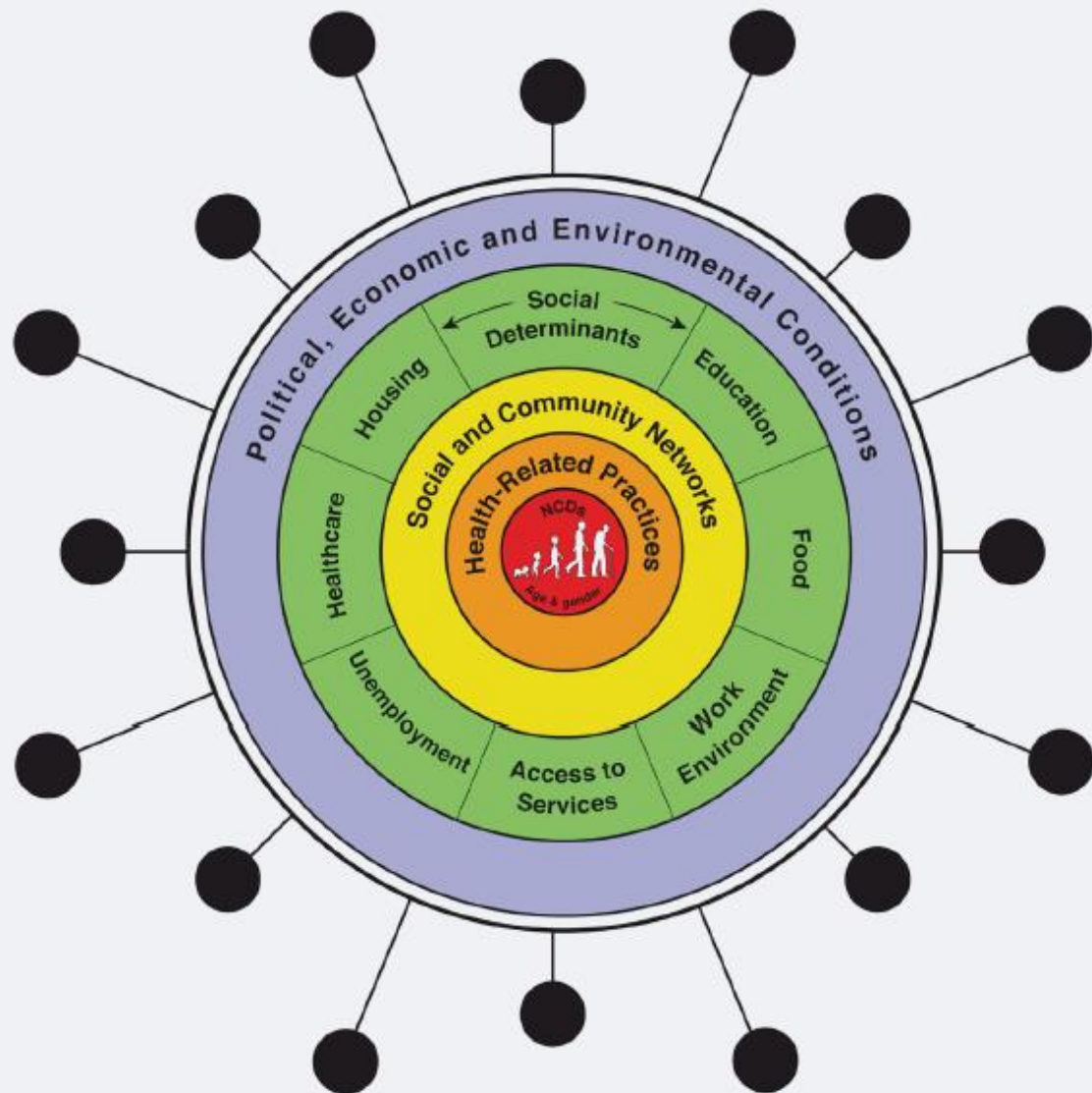
學校健康政策

School health policies

- 準備中...

To be prepared...





The syndemic of COVID-19, non-communicable diseases (NCDs) and the social determinants of health (from Bambra et al, 2020)

- 準備中...
To be prepared...

當疾病的風險因素糾結、累積與交互影響就會發生共病—進而增加疾病負擔及其負面影響。

A **syndemic** occurs when risk factors for illness are intertwined, cumulative, and interactive – thereby increasing the disease burden and its negative effects.

目標

Objectives

1. 探索該領域的健康和教育專業人員如何應對學校重新開放的持續過程，包括心理健康和福祉

Explore how health and education professionals in the field cope with the ongoing process and cycles of school reopening, including mental health and wellbeing

2. 描述該領域的衛生和教育專業人員如何看待有關重新開放的指導內容（如果存在）

Describe how health and education professionals in the field make sense of the guidance about reopening, if it exists

3. 審查學校重新開放的主要具體推動因素、障礙和解決方案

Review the main concrete enablers, barriers and solutions for school reopening

4. 考慮未來如何改進學校的跨部門工作

Consider how intersectoral working in schools can be improved for the future

5. 探索健康不平等的持續/擴大的可能性

Explore the potential for ongoing/widening inequalities



Professionals' Experiences and Views about the Safe Reopening of Schools

Introduction

The UNESCO Chair / WHO Collaborating Centre in 'Global Health and Education' (hereafter called 'UNESCO Chair GHE') would like to gather the experiences and opinions of education and health professionals about the processes in place in their countries and territories to reopen schools safely during the COVID-19 pandemic, and to keep them open.

and how best to limit it

Reopening of schools

Survey school reopening

Returning students and response strategies

Communication of the guidance, and missing resources

You are invited to complete the second survey on the safe reopening of schools and to share the survey within your network. The **aim** of the survey is to gather the experiences and opinions of education and health professionals about the processes in place in their countries and territories to reopen schools safely during the COVID-19 pandemic, and to keep them open.

[START THE SURVEY HERE \(EN\)](#)

[COMMENCER L'ENQUÊTE ICI \(FR\)](#)

[COMENZAR LA ENCUESTA AQUÍ \(ES\)](#)

Erfahrungen und Ansichten von Fachkräften des Bildungs- und Gesundheitssektors zur sicheren Wiedereröffnung von Schulen

Einleitung

Der UNESCO-Chair "Globale Gesundheit und Bildung", zugleich WHO-Kollaborationszentrum, hat sich mit dieser Studie zum Ziel gesetzt, die Erfahrungen, Ansichten und Meinungen von Fachkräften in der Bildung und Gesundheit über die derzeit bestehenden Verfahren und Prozesse zur sicheren Wiedereröffnung von Schulen bzw. zur Aufrechterhaltung des sicheren Schulbetriebes während der COVID-19-Pandemie zu erforschen.

In dieser Umfrage werden die Barrieren und Gelingensbedingungen für die sichere Wiedereröffnung von Schulen untersucht. Dabei zum Beispiel Fragen zu Gesundheitsmaßnahmen in den Schulen, zur Kommunikation über das Coronavirus und den Umgang mit Empfehlungen zum Infektionsschutz an Schulen gestellt.

Im Rahmen dieser Studie meinen wir mit "Schule" nicht nur die Primar- und Sekundarstufe, sondern schließen des gesamten Bildungsbereich für SchülerInnen im Alter von 0-19 Jahren mit Vorschulen, Krippen und Kindergärten mit ein. Ausgeschlossen von dieser Studie ist der tertiäre Bildungsbereich.

Die Teilnahme an dieser Umfrage dauert nicht länger als 20-30 Minuten, je nachdem, wie viel Sie uns mitteilen möchten. Für Ihre Fragen steht Ihnen mit Nicola Gray die Leiterin der Studie unter der Emailadresse nicola.gray@unescochair-ghe.org zur Verfügung. Die Befragung ist freiwillig und anonym. Auch wenn Sie nicht teilnehmen, hat das keine Nachteile für Sie. Bevor Sie mit der Beantwortung des Fragebogens beginnen, bitten wir Sie, die folgenden Informationen zu lesen und Ihr Einverständnis zur

English, French, Spanish Mandarin, German, Arabic, Portuguese

Escolas e Covid-19: Experiência e visão dos profissionais de educação e saúde na reabertura das escolas

Introdução

A Cátedra UNESCO / Centro Colaborador em 'Saúde e Educação Global' da OMS pretende reunir a experiência e visões dos profissionais de educação e da saúde sobre as estratégias desenvolvidas em diversos países e territórios para a reabertura das escolas em segurança e/ou para as manter abertas durante a pandemia COVID-19. Neste contexto inédito onde é, mais do que nunca, fundamental a partilha de conhecimentos, o objetivo desta iniciativa é conjugar as experiências dos profissionais de educação e da saúde em diferentes contextos. O desafio consiste na análise crítica e construtiva do trabalho intersectorial realizado até ao momento e formular recomendações para o futuro.

Este questionário aborda diversos aspetos da reabertura das escolas: as medidas de saúde pública que foram implementadas nas escolas da sua área, a comunicação das diretrizes de nível nacional e/ou local, os fatores que facilitam ou dificultam a reabertura segura das escolas, as modalidades organizacionais e pedagógicas que possibilitam o funcionamento das escolas, bem como a perceção da situação e a análise destes profissionais.

O termo "escolas" refere-se a instituições de educação para crianças dos 0 aos 19 anos, abrangendo creches (ou infantários ou berçários), jardins-de-infância (ou escolas de educação infantil, ou escolas de educação pré-escolar), escolas do ensino básico (ou ensino fundamental) e escolas do ensino secundário (ou ensino médio). As instituições de ensino superior não são consideradas neste estudo.

O questionário demora cerca de 10 a 20 minutos a ser preenchido, dependendo de quanto está disposto(a) a partilhar. Se tiver alguma dúvida, queira por favor contactar o coordenador do

تجارب ووجهات نظر المهنيين في مجال التعليم والصحة حول إعادة فتح المدارس بشكل آمن

مقدمة

يود رئيس اليونسكو / المركز المتعاون مع منظمة الصحة العالمية في "الصحة العالمية والتعليم" أن يجمع خبرات وآراء المهنيين في مجال التعليم والصحة حول العمليات القائمة في بلدانهم وأقاليمها لإعادة فتح المدارس بأمان خلال جائحة وباء كورونا ٢٠١٩، وإبقائها مفتوحة.

يستتول هذا الاستطلاع دراسة مواضيع مثل تدابير الصحة العامة التي وضعت في المدارس في منطقتك التواصل بين هذه الإجراءات المتخذة على المسجلين الوطني و/أو المحلي، والعوامل المساعدة أو المعوقة التي تحول دون إعادة الفتح الآمن للمدارس.

بكلية مدارس لتحدد بشكل عام جميع الأماكن الدراسية للتلاميذ الذين تتراوح أعمارهم بين 0 إلى 19 عامًا في الابتدائية ورياض الأطفال، الابتدائية، الثانوية (المتوسطة والعامة) المهنية منها والتقنية أو العامة، وتشمل أيضا الزراعية، مراكز التدريب التأهيلية، الأماكن المخصصة بمختلف مستوياتها حسب كل بلد.

وفقا للسياق، سيتم استخدام كلمة مدرسة (الأطفال وابتدائية) للتعليم الابتدائي وكلمة مركز للتعليم الثانوي (المدارس المتوسطة أو المتوسطة والثانوية).

يجب أن يستغرق إكمال المسح ٢٠١٠ دقيقة، اعتمادا على مقدار ما تريد إخبارنا به. إذا كان لديك أي أسئلة قبل أن تبدأ، الرجاء الاتصال بـنيكولا غراي، رئيسة الاستطلاع. nicola.gray@unescochair-ghe.org

* 1. أوافق على المشاركة في هذا الاستبيان وأوافق كذلك على النتائج الإحصائية للاستبيان، أوافق أيضا على نشر التعليقات في التقارير والعروض دون نشر الاسم.

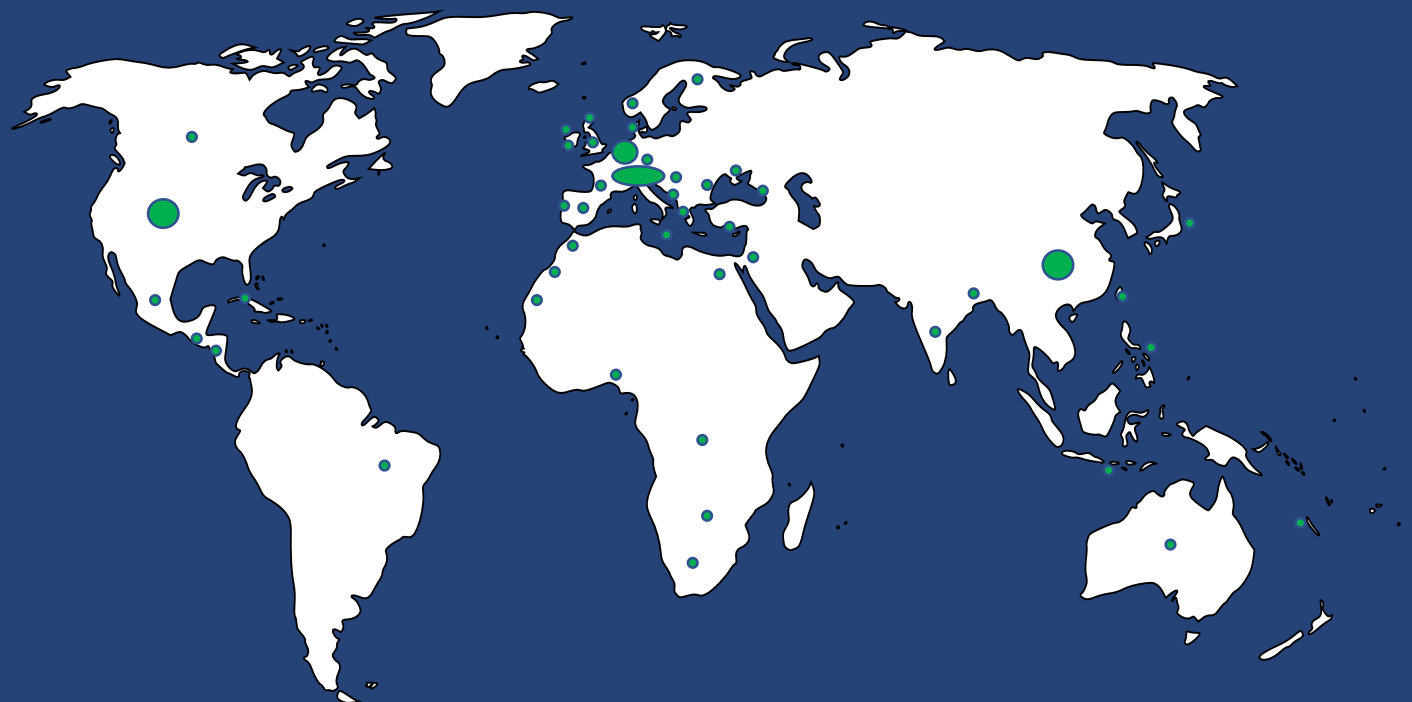


調查結果

Survey Responses

來自75個國家及區域的調查

Responses from 75 countries and territories so far



台灣個案研究

A case study in Taiwan

- 問卷（ 代表性樣本 ）

Questionnaire (representative sample)

- 訪談

Interviews

- 實例探究

Case studies

We count on you!

Covid-19 疫情下 HPS 的未來發展或趨勢

The future development or trends on HPS among covid-19 context

世界衛生組織與
歐洲區域技術諮詢小組研究
WHO and UNESCO research group

**Co-operation and consistency:
a global survey of professionals
involved in reopening schools
during the COVID-19 pandemic**

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