COVID Measures to Inform School Planning

As of August 3, 2020*

*Please note that the science of COVID-19 is evolving rapidly. The information in this PowerPoint reflects current existing models, and will be updated as-needed as guidance develops.

Description

- The enclosed measures are offered as a tool to assist school leaders as they consider choices about on-site, hybrid, and remote learning models for their student populations.

- The existing **Ohio Public Health Advisory System** contains valuable community metrics. But 4 of the 7 indicators lag days or weeks behind new infections (increases in outpatient visits, ED visits, hospital admissions, ICU occupancy)
    - School Planning measures focus at the front end to catch increases in infections as they start

- Measures on the next slides are front-end indicators of a rise in new community infections. Schools can use these to assist in real-time decision making about remote, hybrid, and in-person learning.
    - Primary Measures: Assess how many people in the community have COVID & direction of trend
    - Secondary Measures: Community Performance Indicators - how community systems are coping
    - For Both: Proposed Thresholds for interpretation and decision support for in-person / remote / hybrid learning models

Primary measures: New Cases

| 1. Daily new cases per 100,000 (7-day moving avg) |
| Demonstrates level of virus in community |

| 2. Trend line of daily new cases per 100,000 |
| Indicates whether cases are increasing or decreasing |

Secondary measure: Community Performance Indicators

| Percent of COVID tests that are positive |
| Demonstrates adequacy of community testing (and prevalence of disease) |

Also consider (not shown here): Positive test rates in asymptomatic people; Time from test to result ("turnaround time"); Contact tracing success rate

*Harvard Global Health Institute. *Key Metrics for COVID Suppression.* Retrieved from hhttps://globalepidemics.org/wp-content/uploads/2020/06/key_metrics_and_indicators_v4.pdf

For all In-Person Learning, at all levels:

> ## Measure implementation of reliable & bundled protection protocols

➢ Bundle: Stay Home when Sick, Distancing, Masking, Hand Hygiene, Cleaning *(see Harvard link below)*

   ➢ Also consider Cohorting, Ventilation

➢ School measures of daily cases and quarantine

➢ Important to maintain protocols consistently over time

   ➢ <u>Create systems</u> to track school cases over time

   ➢ <u>Measure implementation</u> of protection protocols

   ➢ If protocols cannot be maintained, consider remote / hybrid models

<u>Read more</u>:

- Overview of protection strategies: Harvard Global Health Institute. *Risk Reduction Strategies for Reopening Schools.* Retrieved from https://schools.forhealth.org/risk-reduction-strategies-for-reopening-schools/
- Meta-analysis of distancing, masks, and eye protection: Chu et al. (2020) Physical distancing, face masks, and eye protection to prevent person-to-person transmission of SARS-CoV-2 and COVID-19: a systematic review and meta-analysis. *The Lancet, 395* (10242), 1973-1987. Retrieved from https://www.thelancet.com/journals/lancet/article/PIIS0140-6736(20)31142-9/fulltext.
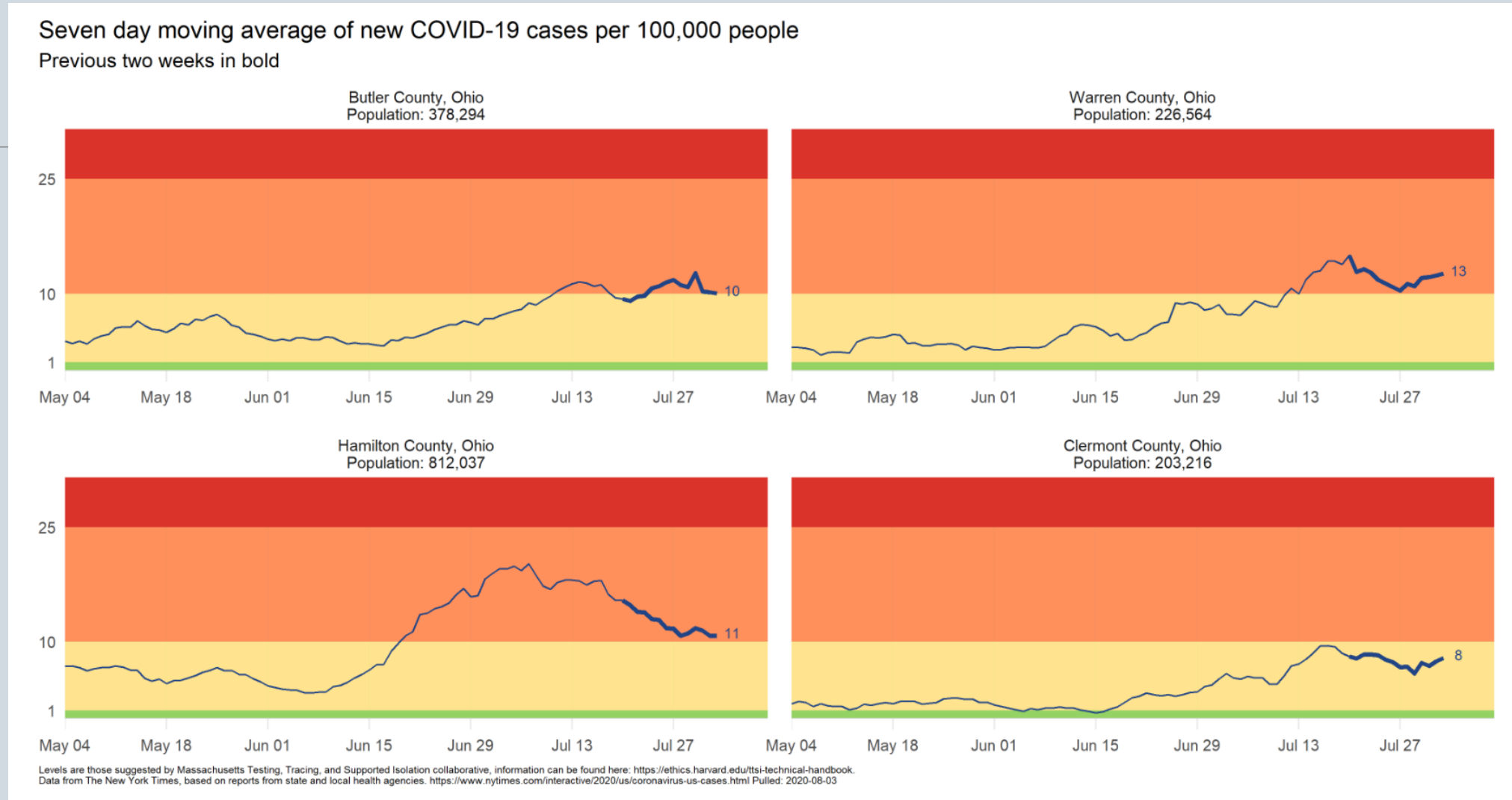
Primary Measures and Proposed Thresholds

Below is a summary of suggested thresholds from Harvard Global Health Institute *(see link for full text).* Schools should consider student needs and ability to implement protection protocols as they make the decision for their district.

| Category	Daily New Cases per 100,000	Schools should consider:
Red	>25	Encourage remote learning for all learners
Orange	10<25	Consider remote learning unless Community Performance Indicators *(slide 3)* are met. If Community Performance Indicators are met, proceed to Yellow box:

Yellow	1<10	**Can school protective protocols be strictly implemented?** *(see slide 4)*
		→ If no, consider remote learning
		→ If yes, consider return to in-person with possible prioritization & phase-in:
		• Priority 1: preK-5, special education through 8th
		• Priority 2: grades 6-8 and special education for grades 9-12
		• Grades 9-12:
		   ○ Not a priority in Orange – continued remote learning
		   ○ Return in Yellow on hybrid schedule IF distancing can be maintained for all grades, majority of time

Green	<1	All grades in school with strict protection protocols

Daily new cases per 100,000 (7-day moving avg)

Seven day moving average of new COVID-19 cases per 100,000 people
Previous two weeks in bold

Values when selected other countries opened schools: Denmark = 3.3, Germany = 0.8, Norway = 1.6

Trend line of daily new cases per 100,000

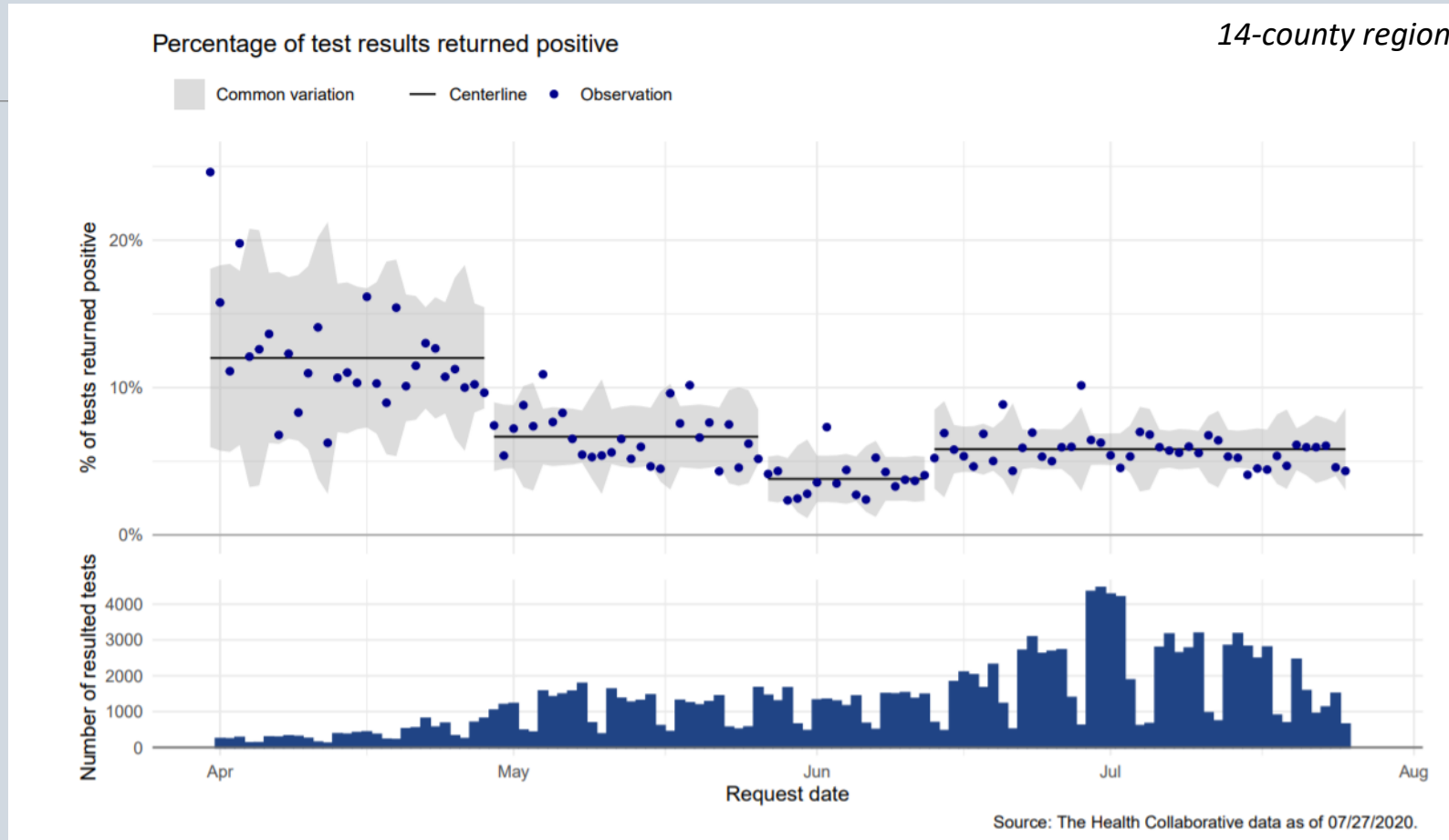Hamilton County, Ohio
Population: 812,037
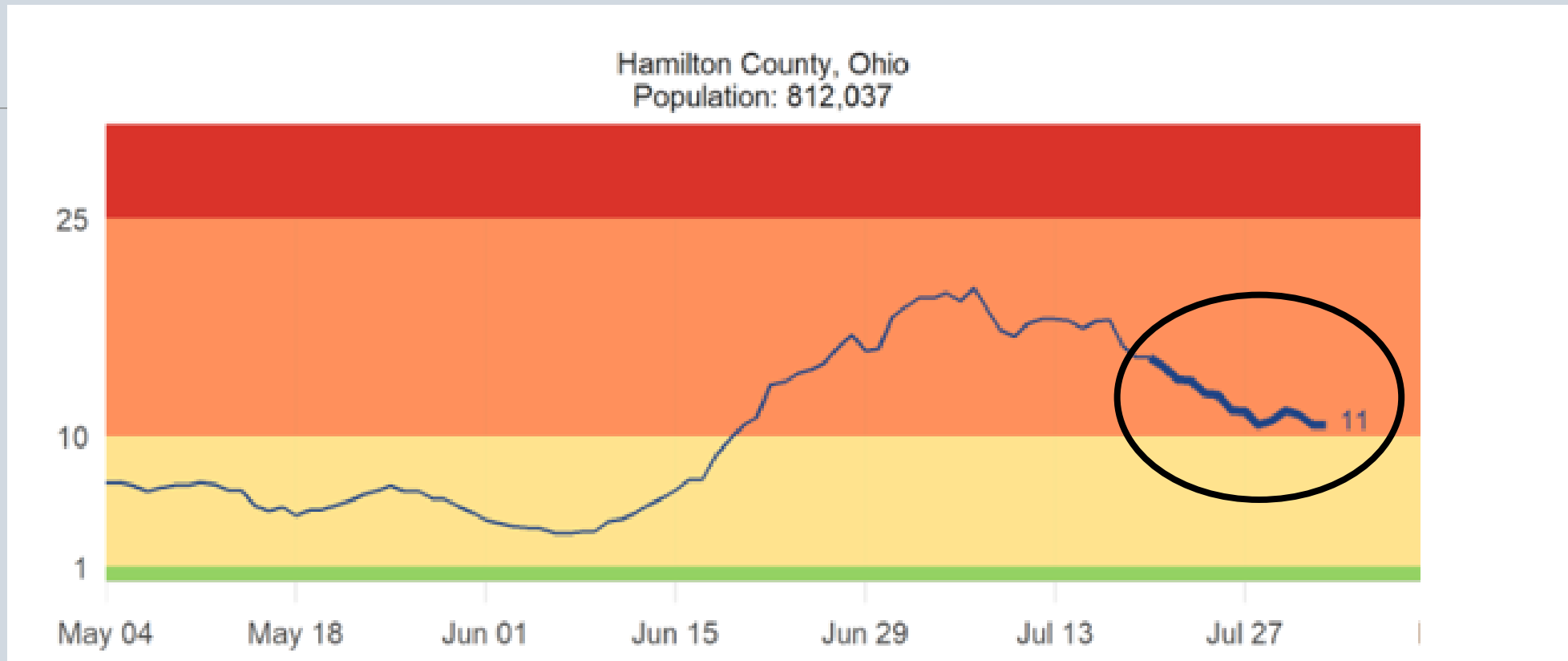
Previous 2 weeks in **BOLD**. CDC positive indicators for continued re-opening:
- 9 of past 14 days declined
- 14th day less than 1st day
- REBOUND = 5 consecutive days of increase

Secondary Measure: Percent of Covid tests that are positive
- Goal: < 5% (CDC)*, <3% (Harvard)**

*Redfield, R. Transcript for CDC Telebriefing on New Resources and Tools to Support Opening Schools, July 24, 2020. Retrieved from https://www.cdc.gov/media/releases/2020/t0724-new-resources-tools-schools.html.
**Harvard Global Health Institute, *Testing Targets*. Retrieved from https://globalepidemics.org/testing-targets/.

References and Data Sources

Harvard Global Health Institute. *The Path to Zero and Schools: Achieving Pandemic Resilient Teaching and Learning Spaces.* Retrieved from https://globalepidemics.org/wp-content/uploads/2020/07/pandemic_resilient_schools_briefing_72020.pdf.

Harvard Global Health Institute. *Risk Reduction Strategies for Reopening Schools.* Retrieved from https://schools.forhealth.org/risk-reduction-strategies-for-reopening-schools/

Chu, D.K.., Akl, E.A., Duda, S., Solo, K., Yaacoub, S., Schunemann, H.J. (2020) Physical distancing, face masks, and eye protection to prevent person-to-person transmission of SARS-CoV-2 and COVID-19: a systematic review and meta-analysis. The Lancet, 395 (10242), 1973-1987. Retrieved from https://www.thelancet.com/journals/lancet/article/PIIS0140-6736(20)31142-9/fulltext.

Redfield, R. (2019, July 24). *Transcript for CDC Telebriefing on New Resources and Tools to Support Opening Schools.* https://www.cdc.gov/media/releases/2020/t0724-new-resources-tools-schools.html

Data Sources:

- The Health Collaborative Situational Dashboard: https://www.cctst.org/covid19. Includes
  - Daily New Cases per 100,000 people by county, Greater Cincinnati Regional Data
  - Daily COVID Tests that are Positive

- Harvard Global Health Institute, Key Metrics for COVID Suppression: https://globalepidemics.org/key-metrics-for-covid-suppression/
  - Daily New Cases per 100,000 people by county, United States
  - Current Test Positive Rate by State, vs target of 3% or lower

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Appendix: Ohio Alert System

Summary of Alert Indicators

	INDICATOR	WHAT IT TELLS US
1	**New cases per capita**	Flagged if greater than 50 cases per 100,000 residents over the last two weeks. Allows for counties with different population sizes to be appropriately compared.
2	**Sustained increase in new cases**	Flagged if increasing trend of at least 5 consecutive days in overall cases by onset date over the last 3 weeks. Reflects disease spread in the population.
3	**Proportion of cases not in a congregate setting**	Flagged if proportion of cases that are not in a congregate setting goes over 50% in at least one of the last 3 weeks. Used as indicator of greater risk of community spread.
4	**Sustained increase in Emergency Department (ED) visits for COVID-like illness**	Flagged if increasing trend of at least 5 consecutive days in the number of visits to the emergency department with COVID-like illness or a diagnosis over the last 3 weeks. Provides information on the health care seeking behavior of the population and a sense of how concerned residents are about their current health status and the virus.
5	**Sustained increase in outpatient visits for COVID-like illness**	Flagged if increasing trend of at least 5 consecutive days in the number of people going to a health care provider with COVID symptoms who then receive a COVID confirmed or suspected diagnosis over the last 3 weeks. Provides information on the health care seeking behavior of the population and a sense of how concerned residents are about their current health status and the virus.
6	**Sustained increase in new COVID hospital admissions**	Flagged if increasing trend of at least 5 consecutive days in the number of new hospitalizations due to COVID over the last 3 weeks. Important indicator of hospital burden and disease severity.
7	**Intensive Care Unit (ICU) bed occupancy**	Flagged if percentage of the occupied ICU beds in each region goes above 80% for at least three days in the last week, AND more than 20% of ICU beds are being used for COVID-19 positive patients for at least three days in the last week. Provides an indication of the capacity available to manage a possible surge of severely ill patients.