

Intervention plan

Your goal: Finalize and submit a public health intervention plan grounded in your outbreak data.

One product: Public health intervention plan combining line list, incidence and prevalence calculations, intervention model with epidemic curve, data-backed recommendation, one success metric, and citations.

Question: How can a plan connect case evidence, a proposed action and a fair check without claiming a proven effect?

Start the work

A line list preserves case identity and time; valid frequency measures also need the right population, denominator and cutoff.

1. Combine your line list, calculations, and intervention model.
2. State the recommended intervention and the data that supports it.
3. Define one success metric to track after rollout.
4. Add citations for your data and methods.
5. Submit the plan and confirm it in your tracker.

Without a confirmed assignment or access, save the dated work and mark submission, screenshot and tracker confirmation pending.

Words you will use

line list

A table with one case per row and the same fields for every case.

case ID

A unique code linking one case to its source report.

field

A named item of information recorded consistently.

case definition

The criteria deciding which records count as cases.

onset

The beginning of the required illness features.

report date

The date information reaches the recording system.

exposure date

The date of contact with a possible cause; it is not automatically onset.

symptom

An experienced feature of illness.

outcome

The recorded state of a case at the stated cutoff.

active case

A case whose defined illness has not ended by the cutoff.

recovery

The end of the defined illness episode.

cutoff

The final date and time included in a record or comparison.

inclusive

Including both named endpoints.

population

The defined group to which the counts refer.

cohort

A defined group followed over time.

at risk

Eligible to develop the counted new event during the stated period.

first episode

The first counted occurrence for a person in this exercise.

numerator

The counted cases above the division line.

denominator

The eligible group total used as the divisor.

new-case count

Number of onsets in a stated time window.

current-case count

Number of active cases at a stated instant.

incidence

Occurrence of new cases; specify count, proportion or rate.

incidence proportion

New cases divided by the initially disease-free people at risk during the window.

incidence rate

New cases divided by accumulated person-time at risk.

person-time

The total time people contribute while at risk.

point prevalence

Current cases divided by the total population at one instant.

percentage

A proportion expressed per one hundred.

cumulative count

All counted cases accumulated up to the cutoff.

subset

A specified part of a larger set.

duplicate

An extra record of a case already counted.

case finding

The method used to identify cases.

reporting delay

Time between an event and its entry into the reporting system.

time bin

A stated interval used to group events on a graph.

onset graph

A graph showing the number of new onsets in each time bin.

baseline

An expected or earlier comparison level with a stated source.

observed peak

The largest count in the observed record, not necessarily the outbreak's final peak.

trend

A pattern of change across comparable times.

prediction

A statement about a future outcome, with assumptions and uncertainty.

transmission

Passage of an infectious agent from a source to another person.

severity

How serious an illness or its effects are.

causal claim

A claim that one factor produced an outcome.

morbidity

Illness or its burden in a population.

mortality

Deaths in a population during a stated period.

contact tracing

Identifying and following people who may have been exposed to a case.

provenance

The source and history of information.

fictional

Invented for instruction, not observed in actual people.

intervention

An action intended to change a condition or outcome.

logic model

A representation connecting proposed activities and intended outcomes.

input

A resource needed for a planned activity.

activity

An action the program plans to perform.

output

A product or service delivered by an activity.

context

Conditions surrounding a program that may affect its work.

implementation

Putting an approved plan into practice.

rollout

The start of an approved program in its intended setting.

metric

A defined quantity used to check performance or an outcome.

target

A chosen value or rule used to judge a metric.

monitoring

Repeated recording of specified measures.

outcome evaluation

Checking whether intended outcomes occurred.

causality

A relationship in which one factor produces a change in another.

process metric

A quantity describing how an activity was delivered.

eligible

Meeting the stated rule for inclusion.

citation

A pointer that lets someone locate a source.

fallback

A planned alternative considered if a stated condition occurs.

assumption

A condition used in reasoning that needs to be stated and checked.

burden

A cost or difficulty imposed by an action.

equity

Attention to fair access and avoidable differences in burden or benefit.

hypothesis

A proposed explanation or prediction that needs testing.

voluntary

Chosen without being compelled by this plan.

H1: assemble a complete original plan

This is an original paper continuation of the invented Cedar case. It reuses all thirty April 21 reports without changing their setting, dates or outcomes. No person was observed.

Your April 21 work is not presumed complete. Use a checked copy if available; otherwise assemble the required four-field line list from D2 and the calculations from R1.

Gather the line list, calculations and intervention model. The supplied original inputs support recovery; they do not prove you finished the assigned model or spreadsheet.

Warmup: what one number could an official check two weeks after rollout? Why does naming the data source make a recommendation easier to check? Keep both answers for revision.

Prepare a one-page main plan with a clear recommendation, supporting numbers, one metric and citations. Attach the complete line list, calculations, intervention model and epidemic curve as supporting pages.

The full product remains one assembled document. An absence starter has three sentences: identify the line list, propose an action, and define a metric. Then complete all required attachments.

D1: Cedar population, dates and case rules

Cedar is a fictional residential learning program with 300 adults. Membership is fixed from the start of April 1 through the end of April 14, 2027.

At the start of April 1, all 300 are disease-free and at risk. No births, deaths or moves occur. All thirty reports are unique valid cases from this cohort.

A case first develops both fever and cough. Its onset date is when both required symptoms first coexist. Additional sore throat does not change eligibility.

Recovery is when both required symptoms have ended. Recovery on a date counts as recovered by that date's end. This is a fictional counting rule, not a medical diagnosis.

Each adult can contribute only one first episode. Earlier cases stay excluded from a later at-risk denominator even after recovery; repeat episodes are outside this exercise.

The first window is April 1–7, inclusive. Its initial at-risk denominator is 300. The second window is April 8–14, inclusive; its denominator is 300 minus the first cases counted in April 1–7.

Case finding is complete every day, with the same criteria and no missed cases, duplicate reports or delays stipulated. All outcomes in D2 are known at the end of April 14.

The expected background is stipulated as zero to one new case per seven days in this population under the same method. It is a teaching assumption, not a measured prior series.

No exposure dates, infection-acquisition times, organism, transmission links, severity or treatment effects are supplied. Symptom onset does not locate an exposure or prove a source.

Use the unambiguous YYYY-MM-DD date format. Preserve an active outcome as active at the cutoff; do not invent a future recovery date.

D2: all thirty unsorted original reports

Report K18: both required symptoms first coexisted on 2027-04-10. Recorded symptoms are fever and cough; sore throat. Both required symptoms ended on 2027-04-13.

Report K02: both required symptoms first coexisted on 2027-04-03. Recorded symptoms are fever and cough. Both required symptoms ended on 2027-04-06.

Report K25: both required symptoms first coexisted on 2027-04-12. Recorded symptoms are fever and cough. The required symptoms remain active at the end of 2027-04-14.

Report K08: both required symptoms first coexisted on 2027-04-05. Recorded symptoms are fever and cough. Both required symptoms ended on 2027-04-08.

Report K01: both required symptoms first coexisted on 2027-04-02. Recorded symptoms are fever and cough. Both required symptoms ended on 2027-04-05.

Report K14: both required symptoms first coexisted on 2027-04-09. Recorded symptoms are fever and cough. Both required symptoms ended on 2027-04-12.

Report K22: both required symptoms first coexisted on 2027-04-11. Recorded symptoms are fever and cough. The required symptoms remain active at the end of 2027-04-14.

Report K05: both required symptoms first coexisted on 2027-04-04. Recorded symptoms are fever and cough. Both required symptoms ended on 2027-04-07.

Report K29: both required symptoms first coexisted on 2027-04-13. Recorded symptoms are fever and cough. The required symptoms remain active at the end of 2027-04-14.

Report K11: both required symptoms first coexisted on 2027-04-06. Recorded symptoms are fever and cough. Both required symptoms ended on 2027-04-09.

Report K04: both required symptoms first coexisted on 2027-04-04. Recorded symptoms are fever and cough. Both required symptoms ended on 2027-04-07.

Report K17: both required symptoms first coexisted on 2027-04-10. Recorded symptoms are fever and cough. Both required symptoms ended on 2027-04-13.

Report K27: both required symptoms first coexisted on 2027-04-12. Recorded symptoms are fever and cough; sore throat. The required symptoms remain active at the end of 2027-04-14.

Report K07: both required symptoms first coexisted on 2027-04-05. Recorded symptoms are fever and cough. Both required symptoms ended on 2027-04-08.

Report K20: both required symptoms first coexisted on 2027-04-11. Recorded symptoms are fever and cough. The required symptoms remain active at the end of 2027-04-14.

Report K10: both required symptoms first coexisted on 2027-04-06. Recorded symptoms are fever and cough. Both required symptoms ended on 2027-04-09.

Report K30: both required symptoms first coexisted on 2027-04-14. Recorded symptoms are fever and cough; sore throat. The required symptoms remain active at the end of 2027-04-14.

Report K03: both required symptoms first coexisted on 2027-04-03. Recorded symptoms are fever and cough; sore throat. Both required symptoms ended on 2027-04-06.

Report K23: both required symptoms first coexisted on 2027-04-11. Recorded symptoms are fever and cough. The required symptoms remain active at the end of 2027-04-14.

Report K13: both required symptoms first coexisted on 2027-04-08. Recorded symptoms are fever and cough. Both required symptoms ended on 2027-04-11.

Report K06: both required symptoms first coexisted on 2027-04-04. Recorded symptoms are fever and cough; sore throat. Both required symptoms ended on 2027-04-07.

Report K26: both required symptoms first coexisted on 2027-04-12. Recorded symptoms are fever and cough. The required symptoms remain active at the end of 2027-04-14.

Report K16: both required symptoms first coexisted on 2027-04-10. Recorded symptoms are fever and cough. Both required symptoms ended on 2027-04-13.

Report K09: both required symptoms first coexisted on 2027-04-06. Recorded symptoms are fever and cough; sore throat. Both required symptoms ended on 2027-04-09.

Report K24: both required symptoms first coexisted on 2027-04-11. Recorded symptoms are fever and cough; sore throat. The required symptoms remain active at the end of 2027-04-14.

Report K12: both required symptoms first coexisted on 2027-04-07. Recorded symptoms are fever and cough; sore throat. Both required symptoms ended on 2027-04-10.

Report K28: both required symptoms first coexisted on 2027-04-13. Recorded symptoms are fever and cough. The required symptoms remain active at the end of 2027-04-14.

Report K15: both required symptoms first coexisted on 2027-04-09. Recorded symptoms are fever and cough; sore throat. Both required symptoms ended on 2027-04-12.

Report K21: both required symptoms first coexisted on 2027-04-11. Recorded symptoms are fever and cough; sore throat. The required symptoms remain active at the end of 2027-04-14.

Report K19: both required symptoms first coexisted on 2027-04-10. Recorded symptoms are fever and cough. The required symptoms remain active at the end of 2027-04-14.

R1: checked quantities and the historical curve

Use your April 21 counts and proportions: new first cases in each window, both at-risk groups, both incidence proportions, the April 14 active count and point prevalence. Your teacher will confirm the class values at the start of class.

Recompute any value you are unsure of from D2. Incidence proportion is new cases over that window's at-risk group; the second group is 300 minus your April 1–7 count. Point prevalence is active cases at the April 14 cutoff over 300.

Recovered cases remain in the historical line list. They are excluded from the active numerator. Earlier first cases stay outside the later at-risk group under D1's rule.

Use your April 21 daily onset tallies for April 1–14, including zero days. They must sum to thirty.

Your April 21 onset graph has date on the horizontal axis and new first cases per day on the vertical axis. It retains all dates, the zero and a zero baseline.

Name the largest observed daily count and its date from your own tally. If later counts are lower, this short record still does not prove the outbreak ended or identify a cause.

Attach your April 21 onset graph or your correctly checked equivalent. Its bars describe original historical onsets; there are no post-rollout observations, future bars or measured intervention effects.

No records after April 14 are supplied. Your active count is an April 14 value, not a known April 22 count. Current status requires new authentic records.

E1: connect an action to an intended outcome

CDC describes a logic model as a way to connect program activities with intended outcomes. A plan should also state needed resources, context and its stage of development. [CDC-MODEL]

An input is a resource, an activity is an action, and an output records what was delivered. An outcome is the change the plan hopes to support.

For this original planning case, propose one voluntary support service for adults who feel ill. The fictional program can plan remote participation, food delivery or flexible attendance without penalties.

CDC advises organizations to support people staying home when sick, including flexible policies. This supports considering access and practical support; it does not establish Cedar's illness or an effect size. [CDC-SICK]

Cedar's fever-and-cough counting rule is not a viral diagnosis or a measure of infectiousness. This exercise sets no treatment, isolation duration or medical return criteria.

Complete a model using resources -> activity -> delivered output -> intended outcome. State one assumption and one possible burden, such as lack of internet or delayed food access.

The arrows represent proposed relationships. Show a possible route through reduced in-person contact, but label it a hypothesis. The reports contain no measured contact network or transmission links.

E2: choose a measurable and fair check

A metric specifies what is counted, for whom, over what time, with which records. A target is a decision rule selected before checking; it is not a guaranteed result.

For an original outcome metric, count new first episodes during the last seven days of a fourteen-day follow-up. Use the same case rule and a defined population.

One available planning target is fewer than ten new cases, compared with your April 8–14 count. Ten is an authored classroom target, not a clinical threshold.

Define follow-up Day 1 as the first full day after an authorized rollout; the check uses Days 8–14 inclusive. No rollout date, approval or follow-up result is asserted.

A proposed monitor would need daily onset records, case IDs, population changes and earlier first-case history through rollout. The missing April 15 onward records prevent a current at-risk calculation.

This count is not an incidence proportion or a person-time rate. If population membership or case finding changes, review comparability before judging the target.

CDC distinguishes outcome evaluation from determining causality. Achieving a target does not by itself show what caused it. Comparison and other evidence are needed for causal claims. [CDC-EVAL]

Choose a feasible metric and target, state who would record it and when, and explain one limitation. You may instead define a supported process metric with its own denominator.

Q1: self-check, critique and fallback

Use this separate invented self-check, not Cedar data: an isolation proposal starts with thirty new cases per week and targets fewer than ten within two weeks.

Write the measure, records needed and deadline. Consider two hypothetical follow-up counts: eight and eleven. Eight meets the chosen target; eleven misses it.

A missed target calls for review, not a conclusion that isolation has no effect. A met target also cannot prove causation. No implementation, comparable population or diagnosis is established here.

For your own plan, explain what action you would reconsider if the first check misses its target. Name the triggering value and check record quality and delivery first.

Solo critique: a reviewer says, “Your arrow proves fewer infections, and a lower count proves your service worked.” Write a correction using E1 and E2, then revise your plan.

If a classmate is available, request a check of the same evidence and metric. Keep the actual feedback or label the supplied solo critique; do not invent a peer conversation.

P1: authentic coursework and submission remain separate

Today, finish Project 5.1.1 Disease Detectives and submit the plan in Lab Reports. This original Cedar plan cannot establish official completion.

Disease Detectives has separate A and B versions. Ask your teacher which version and sections to complete, including diagnostic evidence, source investigation, study design and prevention work beyond this practice.

Confirm the assigned version, portions, actual case reports, analysis, model, conclusion questions and portfolio requirements. Keep missing materials and incomplete work pending; do not mark a whole project complete.

The April 19–23 weekly checklist includes Wednesday’s epidemic graph, Thursday’s intervention model, the assigned spreadsheet and the plan submission. Ask your teacher whether the plan is due today or Friday.

Confirm the deadline and assignment in your enrolled section, and keep this plan task on your checklist.

Before this class, spend twenty-five minutes on Intervention model preparation in Lab Notebooks. Retain the actual model and preparation record; this supplied model framework does not claim they were completed.

For absence recovery, complete the original plan from these inputs. Keep the actual weekly spreadsheet, official evidence and any unfinished earlier work separately pending.

Save one PDF containing the main plan and all attachments. Open Schoology in the enrolled BI section and match Intervention plan by its description; Lab Reports is the dated folder.

Use the teacher’s actual filename and identity instructions locally. Submit only to a confirmed assignment, check the attached file, and record genuine tracker and portfolio status.

After genuine submission, save the required LMS submission-confirmation screenshot. Without access or confirmation, save your work and mark submission and screenshot pending.

No live submission, public-health rollout, personal disclosure, contact tracing or collection of health records is authorized by this paper activity.

M1: a different planning example

This separate invented Maple program has 150 adults and complete first-episode records over Days 1–3. All are initially disease-free; no one moves or has a repeat episode.

M01 has fever and cough starting Day 1 and recovers Day 3. M02 starts Day 2 and remains active; M03 starts Day 3 and remains active.

The line list has those three IDs, their onset days, fever-and-cough symptoms and Day 3 outcomes. The daily curve is 1, 1, 1.

Incidence proportion is $3/150 = 2\%$; final point prevalence is $2/150$, about 1.33%. These describe the records and do not identify an agent or prove transmission.

Worked recommendation: offer a telephone route for requesting remote materials. Three historical cases support planning for illness-related access; whether telephone access helps remains untested.

Model: staff time $\rightarrow$ offer telephone requests $\rightarrow$ record requests answered $\rightarrow$ intended access without in-person attendance. An assumption is telephone access; a burden is limited staff availability.

Worked metric: answer at least 90% of eligible requests within one working day over the first fourteen days after approval. Log request time, eligibility and response time.

If ten eligible requests occur, nine timely answers would meet that target. These are a hypothetical arithmetic example, not observed results; zero requests would leave the percentage undefined.

Worked limit and fallback: timely answers do not prove fewer cases. Below 90%, first check missing timestamps and staffing, then propose adjusted coverage for review.

Cite this M1 as original input and CDC-MODEL and CDC-EVAL for methods. Build your own Cedar recommendation; do not substitute Maple's three rows or denominator.

Try the decision

Which plan uses Cedar's evidence responsibly?

- Connect the historical records to a proposed support action, define a future metric, and state what the records cannot prove.
- Treat any lower late daily counts as proof that a service not yet rolled out prevented infections.
- Submit a persuasive paragraph alone and call the missing official project, model and screenshot complete.

Explain your choice using the reading. Discuss it or say it to yourself. This practice does not add another submission.

Your 80-minute flow

0–5 minutes	Answer both warmups and identify gathered or missing pieces.
5–25 minutes	Read and check inputs; assemble the line list, calculations, curve and model.
25–45 minutes	Write the evidence-backed main recommendation and add citations.
45–60 minutes	Define the metric, target and records; answer Q1 and state a fallback.
60–72 minutes	Check every claim and attachment; critique and revise the plan.
72–80 minutes	Save the full plan and record genuine submission and tracker status.

Your response record

Use these labels on paper or in your document. The space below also works when this page is printed.

Assemble evidence

Answer both H1 warmups. Gather or recover the complete line list, all R1 calculations and your April 21 onset graph. Assemble your intervention model using E1.

Check every D2 record and retain dates and outcomes. A three-sentence absence starter returns to the full product.

Use this space or the same labeled section in your existing document. Add paper when your table, graph or drawing needs more room.

Write the recommendation

Write your own Cedar recommendation with at least two relevant numbers, their dates and limitations. Explain the model's intended relationship and one burden.

Use a one-page main plan with supporting attachments. Do not claim the historical curve measured your proposed action.

Use this space or the same labeled section in your existing document. Add paper when your table, graph or drawing needs more room.

Define the success metric

Specify one metric, target, eligible population, records, recorder and follow-up window. Explain the interpretation limit and a fallback trigger.

Use E2 or justify a feasible process metric. No follow-up observations or rollout approval are supplied.

Use this space or the same labeled section in your existing document. Add paper when your table, graph or drawing needs more room.

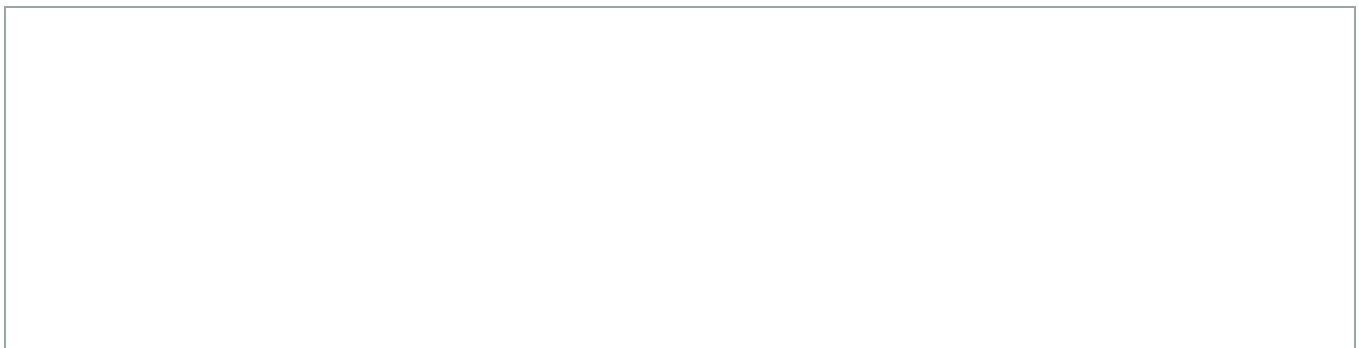


Cite and revise

Cite original data separately from public methods. Complete Q1, respond to actual or supplied solo critique, and show a before-and-after revision.

Map each data claim to its input and each method claim to its public source. A target is chosen, not a published effect.

Use this space or the same labeled section in your existing document. Add paper when your table, graph or drawing needs more room.



Check and record status

Check every product component. Revise your warmup and record actual assignment, model, weekly dataset, portfolio, submission, screenshot and tracker status.

Save the assembled PDF; use the confirmed route only. Pending work remains pending and no screenshot is fabricated.

Use this space or the same labeled section in your existing document. Add paper when your table, graph or drawing needs more room.



Check your product

- The main plan and attachments contain the complete line list, calculations, model and epidemic curve.
- The recommendation names evidence, dates, provenance and a limitation.
- One measurable target has a defined window, records and interpretation limit.
- Citations and revisions are inspectable; authentic work and submission status are honest.

Keep the limit: Original records and proposed models support plan reasoning. They cannot establish any actual outbreak cause, rollout, intervention effect, current patient status, official completion or submission.

Turn in your work

Save one PDF containing the main plan and all supporting attachments. Match Intervention plan in the confirmed enrolled BI assignment; the dated folder is Lab Reports.

Without a confirmed assignment or access, save the dated work and mark submission, screenshot and tracker confirmation pending.

[Open this assignment in Schoology.](#)

Carry forward

A plan links evidence to an action and a measurable check; meeting a target alone does not prove the action caused the outcome.

Carry a checked recommendation and its limits into health messaging; keep actual course and submission status explicit. Which action can your recommendation responsibly ask an audience to take?

Sources and resources

[Open today's page](#)

CDC-CASE · Outbreak and Case Definitions

CDC

<https://www.cdc.gov/urdo/php/surveillance/outbreak-case-definitions.html>

CDC-EPI · Describing Epidemiologic Data

CDC Field Epidemiology Manual

<https://www.cdc.gov/field-epi-manual/php/chapters/describing-epi-data.html>

CDC-FREQ · Lesson 3, Section 2: Morbidity Frequency Measures

CDC archived Principles of Epidemiology

https://archive.cdc.gov/www_cdc_gov/csels/dsepd/ss1978/lesson3/section2.html

CDC-MODEL · Step 2: Describe the Program

CDC

<https://www.cdc.gov/evaluation/php/evaluation-framework-action-guide/step-2-describe-the-program.html>

CDC-EVAL · Step 3: Focus the Evaluation Questions and Design

CDC

<https://www.cdc.gov/evaluation/php/evaluation-framework-action-guide/step-3-focus-the-evaluation-questions-and-design.html>

CDC-SICK · Preventing Spread of Respiratory Viruses When You Are Sick

CDC

<https://www.cdc.gov/respiratory-viruses/prevention/precautions-when-sick.html>