

Operational Toolkit for Businesses Considering Reopening or Expanding Operations in COVID-19:

Risk Assessment, Modification Assessment, and Mitigation Measures

Instruction Manual



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Intended Use of the Operational Toolkit

This operational toolkit has been developed to help business owners who are considering reopening or expanding their operations to determine their establishments' risk of transmission of COVID-19 and how to reduce it. Although the global pandemic of COVID-19 is far from over, in the United States and in many other countries globally, governments are beginning to experiment with lifting strict public health and social measures, including physical distancing, movement restrictions, and closures. As many countries now move into the [next phase](#), local, state, and federal authorities are planning for the gradual reopening of businesses and resumption of economic activity. However, the resumption of activities will come with significant risks of increased transmission of COVID-19,* and decisions about the timing and order of business reopening or expanding business operations will need to be guided by [public health principles](#).

In this phase, broad physical distancing measures like stay-at-home orders will be eased. In order to avoid a large resurgence of COVID-19 cases and deaths, individuals and companies must continue to take measures that limit the opportunities for viral transmission.

As countries begin exploring ways to carefully lift the physical distancing measures aimed at reducing transmission of COVID-19, it will be important for each business to consider the risks associated with its operations and whether and how those processes and operations might be altered to decrease the risks of transmission. The decision on how and when to lift physical distancing and other social restrictions will be determined based on individual local, state, and federal criteria. While planning for a staged approach to business resumption must be coordinated by local, state, and federal authorities, individual organizations should start planning for how they will restart or expand their operations so that modification and mitigation measures will already be in place when work can resume and the new “business as usual” can commence.

The reduction of physical distancing measures will likely happen while COVID-19 is still circulating in the community. When businesses reopen or expand operations, they should implement modifications to their operations in order to reduce the risk of transmission of COVID-19 and increase the safety of their employees and customers. In order to determine what modifications should be implemented, businesses first need to assess the level of risk for transmission of COVID-19.

With this in mind, we have developed this ***Operational Toolkit for Businesses Considering Reopening or Expanding Operations in COVID-19***. The toolkit consists of 3 parts:

- **This Instruction Manual:** instructions that explain how to complete the accompanying Business Risk Worksheet and Assessment Calculator.
- **[A Business Risk Worksheet](#):** a step-by-step worksheet for you to report and understand your business's overall risk of spreading COVID-19 and how your business operations can be made safer.
- **[An Assessment Calculator](#):** an Excel spreadsheet you can fill out to receive a calculated **risk score** and a **modification score** after completing stages 1 and 2.

* It should be noted that, in this document, the term COVID-19 is used broadly; however, this disease is caused by the SARS-CoV-2 virus.

With this toolkit, business leaders can work through a 4-stage process to obtain an overall risk score for their business and identify considerations for reducing both operational and individual level risks posed by COVID-19. The overall score a business receives takes into consideration the inherent risk of exposure opportunities to COVID-19 a business may have and the changes to their daily operations and policy they can implement to determine the level of risk of COVID-19 transmission their modified business operations present to their employees, their customers, and the community.

Some businesses may have operations that significantly differ in their risk opportunities among departments, locations, facilities, or types of activity. In these instances, businesses should consider performing this process for each distinct group to receive a more nuanced overall risk score. Businesses should also regularly conduct the process laid out in this operational toolkit to account for changes to their business operations and the additional implementation of modifications and mitigations.

This operational toolkit is not intended to inform local, state, and federal authorities on how to reopen their communities or how to lift the physical distancing measures already in place. Rather, the operational toolkit has been developed to help business owners to determine and reduce their establishments' risk of transmitting COVID-19 when they reopen or expand their operations. In developing this operational toolkit, various types of businesses were considered, and they were grouped by the level of contact and the level of exposure their operations generate. This operational toolkit has undergone external review and pilot testing by business and industry leaders to refine and reshape its use and relevance to a variety of industries.

These documents provide businesses with a stepwise approach to calculating and understanding their risk, as well as examples of mitigation measures to increase the safety of their employees and customers.

The Focus of the Operational Toolkit: Risk Assessment and Measures to Reduce Risks of Community Spread of COVID-19

Risk assessments can assist businesses and other organizations in examining the likelihood of increased viral transmission when they reopen or expand their operations, as well as the potential public health consequences if transmission occurs. Businesses should understand the risk of increased transmission that reopening or expanding operations may pose so that they can identify practices that may result in elevated risk and consider what changes might reduce the risk.

This operational toolkit measures the overall risk of further COVID-19 spread in a community when a business reopens or expands its operations. In this context, there are 2 categories of measures that businesses can take to reduce the risk of COVID-19 transmission: modification measures and mitigation measures. Modifications reduce risk of spread at the operational level; mitigation measures reduce risk of spread at the individual level.

Overall risk is calculated by assessing a business's normal operations and the changes that have been implemented during the pandemic (modifications) to decrease COVID-19 transmission. While the individual risk for employees and customers is not directly measured in this operational toolkit, practices that reduce individual risk also reduce the overall risk of COVID-19 spread in a community. Therefore, the more modification measures that can be implemented to reduce the overall risk score for a business, the lower the individual risk for its employees and customers. Mitigation measures, which are aimed at reducing individual risk, are also encouraged, regardless of the overall risk score.

While some businesses may be unable to significantly reduce their risk and thus may want to consider remaining closed at this time, understanding the level of risk their operations pose to their employees, clients, customers, and community will be useful for business continuity and operational planning. Measures that reduce risk are necessary for business operations because without such modifications, in combination with public health measures, widespread community transmission is more likely to recur, which may necessitate re-imposition of physical distancing measures, like stay-at-home orders.

Disclaimer

It must be noted that “low risk” or “very low risk” is not equivalent to no risk. Determining risk levels for a business is a complex and multifaceted decision process. The Johns Hopkins Center for Health Security does not have the authority or ability to assign empirical risk levels to any business, nor does it intend to dictate to businesses whether and how they should reopen or expand their operations. Rather, this operational toolkit provides a stepwise approach that can aid businesses in making decisions by allowing them to calculate and understand the level of risk they have, the modifications to their operations they can implement, and the mitigation measures that would be useful to include in their procedures.

Implementing the activities put forth in this operational toolkit and receiving an overall score of “very low” will not eliminate the risk of COVID-19 cases being linked to activities in a reopened business. In this context, if a business is connected to an increase in cases of COVID-19 in the community, the business should consider temporary closure or significant changes to their operations to address these issues and attempt to limit further spread.

In addition, the evolving situation of the pandemic must be taken into consideration. If the relevant public health authorities announce that a community is experiencing a significant increase in COVID-19 cases, all businesses in that community should consider temporary closures or changes to their operations to limit possibilities of further spread. Businesses should remain informed about and abide by any decisions made by local public health and government authorities. Further information actions to take in the event of a resurgence in cases can be found under the section Triggers for Business Closures or Additional Modifications.

How to Work Through the 4 Stages with the Toolkit

As a business leader, you will be guided through 4 stages to complete the assessment, determine an overall risk score for your business, and find recommendations for risk-reduction measures as you consider reopening or expanding. Figure 1 shows how you can move through this operational toolkit using the **Business Risk Worksheet** and **Assessment Calculator**.

While working through the 4 stages, you will need to refer to the **Decision Tree**, which can be found in the Business Risk Worksheet. The Decision Tree shows the stepwise process you can use to measure the risk of experiencing increased transmission of COVID-19 once you’ve reopened or expanded your business operations, as well as the impact that your modifications and mitigations can have in reducing this risk. Once you have done the work required in the first 2 stages, you will be able to find your overall score by using the Decision Tree.

If you find that the risk assessment or modification assessment outlined in this document do not apply well to your business, they could still be of use as a general framework when developing your own decision-making process.

STAGE 1 Risk Assessment

For this stage you will need the Business Risk Worksheet and the Assessment Calculator. At the end of this stage, you will calculate your **risk score**.

The risk assessment measures the risk of businesses experiencing increased transmission of COVID-19 if they reopen or expand their operations. You should perform this risk assessment in the context of normal operations before COVID-19—that is, before you have implemented any modifications to decrease transmission.

STAGE 2 Modification Assessment

For this stage you will need the Business Risk Worksheet and the Assessment Calculator. At the end of this stage, you will calculate your **modification score**.

The modification assessment takes into account efforts businesses have implemented to reduce their risk of transmission of COVID-19. There are a variety of ways businesses can modify their operations to decrease their risk of transmission. The questions ultimately measure the efforts you as a business owner can take to decrease the exposure of your employees, clients, and partners to the virus.

STAGE 3 Determination Based on Overall Score

For this stage, you will need the Business Risk Worksheet. At the end of this stage, you will obtain your **overall score** for reopening or expanding operations.

Using scores obtained in stages 1 and 2, you will find your **overall score** in the Decision Tree. The **overall score**, ranging from very low to very high, corresponds with a determination that explains the level of risk your modified business operations present to significantly contributing to COVID-19 transmission in your community. The determination is based on the level of preexisting risk of COVID-19 transmission inherent in normal business operations and the number of modifications the business can reasonably implement to decrease that risk. *The determination is not a final pronouncement of the decision that the business should make, but rather illustrates where its risk level and modification process places it in a hierarchy of risk during COVID-19.*

STAGE 4 Mitigation Measures

For this stage, you will need the Business Risk Worksheet. At the end of this stage, you will draft risk-reduction measures to accompany your proposed business modifications from stage 2.

Once you have received your **overall score** and determination, you are encouraged to complete the mitigation measures table. This table provides space for you to design mitigation measures specific to your business operations in several key areas (eg, risk communication, infection prevention, etc). Mitigation measures provide additional practices that you can implement in your day-to-day operations that will result in a safer environment for employees, customers, and the community. *All businesses should attempt mitigation efforts in these key areas prior to reopening or expanding their operations, regardless of their overall scores.*

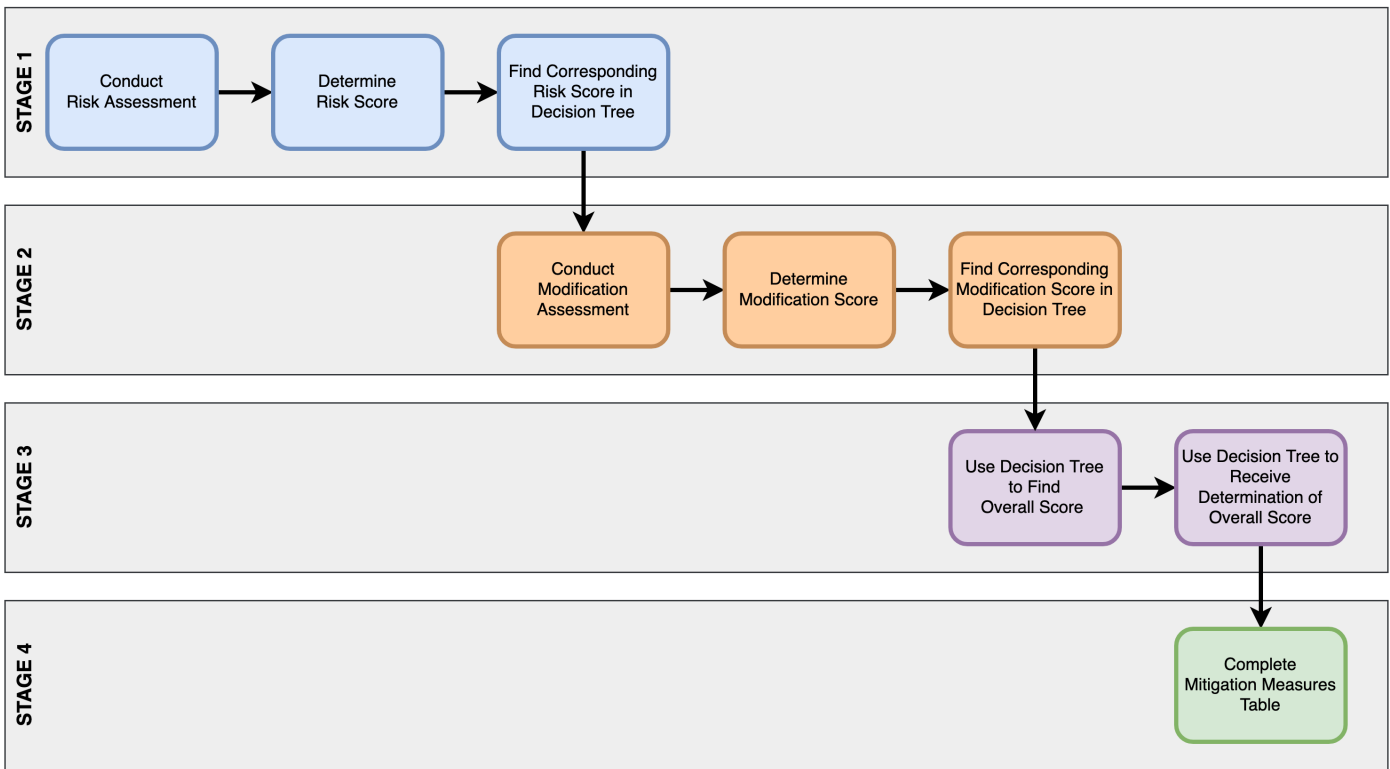


Figure 1. Process showing how users should complete the worksheet

STAGE 1: Risk Assessment

The risk assessment evaluates the risk of possible COVID-19 exposure to employees and customers and the risk of further spread of COVID-19 should your business reopen or expand operations *without any additional modifications to operations*. Questions have been weighted by importance based on judgments about which activities could lead to transmission of COVID-19. You should answer the questions in the context of your business's normal operations, without any modifications or policy changes in place to address the COVID-19 pandemic.

For this assessment, a business with a low risk score is in a better starting position to decrease business-related COVID-19 transmission than a business with a high risk score. Notwithstanding, businesses with high risk scores can still take several steps to limit the risk of transmission, as will be further explored in subsequent steps.

To complete this stage:

1. Open the accompanying **Assessment Calculator**.
2. Navigate to the tab in the calculator labeled **Stage 1 Risk Assessment**.
3. Answer the risk assessment questions as they relate to your normal business operations. Due to the wide range of businesses and establishments, some questions in the risk assessment may not be relevant. In this case, businesses should answer "No/Not Applicable."
4. When all questions have been answered, your calculated **risk score** (low, moderate, or high) will be displayed at the bottom of the assessment next to a box titled "Risk Score."
5. Refer back to the **Business Risk Worksheet** with this **risk score**, and fill out the designated area in *Stage 1: Risk Assessment*.
6. Still in the **Business Risk Worksheet**, find your **risk score** in the **Decision Tree** in order to proceed to *Stage 2: Modification Assessment*.

What questions will be asked in the risk assessment?

Questions are designed to assess the risks of COVID-19 transmission related to the likelihood and consequences of increased transmission among employees, clients, customers, other people who interact with your business, and your surrounding community, in the course of normal business activities. The answers to these questions are scored, weighted, and combined to calculate a **risk score** representing the risk of increased COVID-19 transmission within the community due to business operations.

- Are you a business that requires a high density of people in your facility (eg, a large number of employees in an enclosed space at one time)?
- Are you a business that requires your employees to travel to numerous different sites domestically in order to conduct business?
- Are you a business that relies on international travel in order to operate?
- Are you a business that requires employees to directly touch clients, customers, or other community members?
- Are you a business that requires the handling and transfer of goods and other products between employees, clients, customers, or other community members?

- Does your business have high-touch surfaces that are required for operation?
- Does your business require prolonged close contact between employees, clients, customers, or other community members (ie, more than 10 minutes, less than 6 feet)?
- Do you or your employees interact with any clients, customers, or other community members in person, on a daily basis?
- Do you or your employees interact with a large number of clients, customers, or other community members in person, on a daily basis?
- Are you a business that works directly with vulnerable populations (eg, aged care, disability services, etc)?

It should be noted that, for the most part, these questions have not been framed in terms of concrete numbers of interactions (eg, more than 20 customers in the store, fewer than 2 meetings per year, etc) or length of interaction, as specific contexts influence these questions differently. These questions are intended to focus on the nature of interactions employees have with clients, customers, and others and with each other. The value of these questions is that they represent the drivers of increased COVID-19 transmission as well as increased consequences for local healthcare systems if transmission occurs. Judgment calls need to be made when answering such questions as what is deemed “frequent interaction” or “close contact.” You should discuss these questions internally in your business and use your best judgment to answer them.

STAGE 2: Modification Assessment

The modification assessment measures the efforts your business has made to reduce the risk of COVID-19 transmission. Questions have been weighted based on qualitative judgments about the relative contribution of each question to reducing the quality and quantity of business-related interactions that could lead to transmission of COVID-19. While attempts were made to include modifications that are applicable to a wide range of businesses and establishments, some questions in the modification assessment may not be relevant to your business. In this case, you should answer “Not Applicable.”

For this assessment, a business with a high modification score is in a better starting position to decrease business-related COVID-19 transmission than a business with a low modification score. Businesses with low modification scores (that are less able to decrease operational-level risks) can still undertake several mitigation measures to decrease individual-level risks. These individual-level mitigation measures are explored further in stage 4.

To complete this stage:

1. Open the accompanying **Assessment Calculator**.
2. Navigate to the calculator tab labeled **Stage 2 Modification Assessment**.
3. Answer the modification assessment questions as they can be reasonably implemented to modify your normal business operations. Note that “No” and “Not Applicable” are now 2 different possible answers. Due to the wide range of businesses and establishments, some questions in the modification assessment may not be relevant. In this case, your business should answer “Not Applicable.” In addition, if your business has not fully implemented the modification in question, you should select “Partially/In Progress” rather than “Yes.”
4. When all questions have been answered, your calculated **modification score** (low, moderate, or high) will be displayed at the bottom of the assessment next to a box titled “Modification Score.”
5. In the **Business Risk Worksheet**, fill out the designated area in *Stage 2: Modification Assessment* with your calculated **modification score**.
6. Still in the **Business Risk Worksheet**, find your **modification score** in the **Decision Tree** in order to proceed to *Stage 3: Recommendation Based on Overall Score*.

What questions will be asked in the modification assessment?

These questions measure ways your business can modify operations to lower the opportunities for exposure that employees and clients may experience during reopening of business operations. Below are some examples of how you could implement some of these modifications for your business.

- Is it possible to move your business entirely online?
- Is it possible to significantly limit the number of people (eg, employees, clients, customers, other community members) that interact in person during daily business operations? This may include modifications such as:
 - ensuring clients buy goods and products only online with delivery or pick-up options
 - utilizing outdoor spaces to limit interactions in enclosed spaces

- restricting the number of people who are allowed to interact in an enclosed space at one time
 - limiting the number of people being served at one time
 - limiting face-to-face contact with clients or customers
 - providing alternative scheduling to limit the number of clients or customers on any given day
- Is it possible to restrict or significantly limit travel (domestic or international)?
 - Can measures be implemented to ensure physical distancing (minimum of 6 feet) can be practiced? This may include modifications such as:
 - markings on the floor to encourage clients or customers to maintain physical distance
 - using shields or other physical barriers between employees or between employees and clients, customers, or other members of the community to enforce physical distancing
 - Can your business be modified to significantly limit or cancel large meetings, conferences, tournaments, or events?
 - Can your business be modified to significantly limit or restrict physical contact with clients, customers, or other community members?
 - Can your business be modified to significantly limit or restrict the goods and other products that are passed between employees and customers? Modifications may include:
 - using online shopping services only
 - enforcing a “no return” policy on certain goods and products
 - providing electronic or online payment options only
 - providing employees with appropriate personal protective equipment (PPE)

As with the risk assessment, *concrete numbers for the degree to which businesses should significantly limit or restrict certain activities have not been defined*. You should use existing guidance provided by federal, state, and local health authorities to inform your business on the size of allowable gatherings and other public health measures. It is also crucial that you discuss internally in your business judgment calls on the degree of limitations your business can reasonably make. Your best judgment should be used to determine what the thresholds will be to consider operations significantly limited or reduced. You should also be mindful that these thresholds may not be static numbers, but rather may change according to the state of the COVID-19 outbreak in your community as well as local and federal decisions.

STAGE 3: Determination Based on Overall Score

The overall risk score determines your business's new level of risk for increased transmission of COVID-19 when modifications are taken into account. An **overall score** ranges from “very low” to “very high.”

To complete this stage:

1. Refer to the **Decision Tree** in the Business Risk Worksheet and follow the arrows from your corresponding **risk score** down to your corresponding **modification score**.
2. Still in the Decision Tree, from your **modification score**, follow the arrow to find the **overall score** that pertains to your business's circumstances.
3. Based on your **overall score**, find the corresponding determination of risk level.
4. Regardless of your overall score, proceed to *Stage 4: Mitigation Measures* to create mitigation (risk-reduction) measures tailored to your unique circumstances.

After receiving the **overall score**, you can locate your corresponding determination on the Decision Tree. The determination is based on the transmission risks associated with your normal business operations and how much you are able to modify operations to decrease these risks. As such, there are 5 determinations corresponding to the 5 **overall scores**, which range from “very low” to “very high.” Your **overall score** and subsequent determination provide the level of risk of COVID-19 transmission your modified business operations present to your employees, customers, and community.

While a combination of modifications could create a meaningful reduction in possible COVID-19 transmission, preexisting risk from the types of operations your business conducts (eg, close, sustained contact with many people) may prevent high-risk businesses from receiving a “very low” or “low” **overall score**. Therefore, these determinations are not a final pronouncement on the risks of reopening or expanding business operations, but rather should be used to orient businesses in their risk environment as they continue working toward the goal of limiting spread of COVID-19 among their employees, customers, and community.

An **overall score** of “very high” does not necessarily mean businesses cannot reduce the risk of transmission among employees, clients, and customers; rather, scores on the higher end of the range indicate that more modifications and mitigation measures should be considered. Conversely, an **overall score** of “very low” does not mean that there is no risk of COVID-19 transmission associated with business operations. Instead, businesses with a score of “very low” should continue to create strategies to modify their operations and mitigate risks of transmission throughout their reopening or expansion processes. Therefore, all users of this toolkit should continue during their planning for reopening or expanding operations in *Stage 4: Mitigation Measures* to think of relevant ways to increase safety for their employees, clients, customers, and community.

STAGE 4: Mitigation Measures

It is highly recommended that all businesses implement applicable mitigation measures, regardless of the **overall score** they have received. Successfully incorporating mitigation measures can further reduce risk of COVID-19 transmission and increase the safety of employees and customers as communities transition out of physical distancing practices.

Mitigation measures include an array of factors, including emergency planning; educational awareness and risk communication; infection prevention and control practices; water, sanitation, and hygiene practices; and recovery planning. It is possible for businesses to prepare for most of these measures prior to reopening, allowing for a smoother and safer transition back to more normal business operations.

Your answers to the mitigation measure categories can be as complete or hypothetical as you would like; there is no assessment of your answers to the prompts. The prompting categories provided in the table are there to help guide your thinking on these issues, but not all prompts may be applicable to your business.

To complete this stage:

1. Check the boxes, where appropriate for your business, on the possible measures that can be applied to your business, in the tables provided in Stage 4 of the **Business Risk Worksheet**.
2. Fill out the column on how these interventions will be implemented in the tables provided in Stage 4 of the **Business Risk Worksheet**.

Descriptions of the measures that are considered under this mitigation strategy are provided below in the following categories:

- **Physical Distancing Measures: Person-to-Person**
- **Physical Distancing Measures: Persons-to-Shared Objects**
- **Limited Gatherings and Travel Measures**
- **Sanitation and Hygiene Measures**
- **Company Policy Measures**
- **Risk Communication Measures**

Triggers for Business Closures or Additional Modifications

As communities begin to lift population-level physical distancing measures, and businesses reopen or expand their limited operations, community transmission of COVID-19 may recur. The goal of this toolkit is to help businesses to reduce the risk of increased transmission. However, the steps suggested in this document cannot reduce risk to zero.

If widespread transmission in the community recurs, businesses and individuals may be advised by local or state authorities to revert to strict community physical distancing measures such as stay-at-home orders. In that case, businesses should abide by that guidance.

If transmission does occur in connection with a business, there should be a plan in place to respond appropriately. Transmission directly related to a business may make it necessary to close the business temporarily to prevent further transmission. Decisions about whether to close should be made in accordance with public health principles and in coordination with public health authorities as appropriate. The trigger for closure will differ depending on the business and on the local epidemiologic situation. In some cases, a single case may trigger temporary closure. In other cases, the triggering event may be greater, especially for an essential business. If closure is not an option, a business must find other ways to interrupt transmission. Businesses should determine, in advance of an incident, what threshold they will use to close or restrict their operations.



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