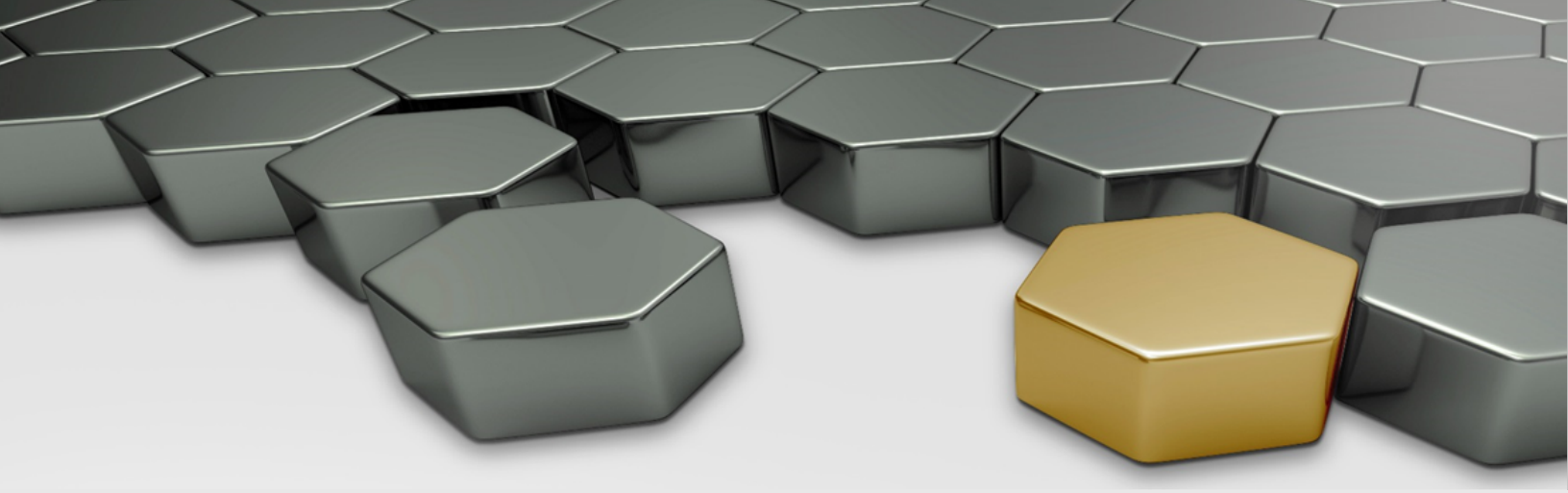




Guarding Against Bias

A Guide for Seeing, Understanding, and Managing Bias



SG Collaborative Solutions, LLC™
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Preface



Introduction and Access

This manual provides a guide for assessing and managing Bias in both Collaborative Risk and Triad Reviews. The manual supports SG Collaborative Solutions organizational clients with access to the SGCS Collaborative High Reliability® and Collaborative Just Culture® suite of integrated products. Users must be employed and authorized by an organization under contract with SGCS.

Online Prerequisites

- *Principles of Reliability*
- *Performance vs Behaviors*
- *Using the Reliability Response Guide*
- *Essential Supervisor Skills*

Other Requirements

- Completion of Training: *Facilitating the Collaborative Risk Review*

Related Documents

- SGCS Reliability Response Guide™ (RRG)
- RRG Instruction Manual
- Reliability Management Team™ Manual

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Signature: _____

Feedback

SG Collaborative Solutions values your feedback. Please provide general comments, along with any errors and omissions to: info@sg-collaborative.com



Table of Contents

Purpose	5
Definition and Reason for Biases	5
Significance of Biases	5
Discrimination Against Marginalized Groups.....	6
Collaborative Effort to See and Understand Biases.....	6
Bias Checklist	14
How to Use the Bias Checklist	14
Counterfactual Statements	15
Subject Matter Experts.....	15
1. Seeing and Understanding the Risk of Biases	16
Questions About Biases in Our Perception of Risk.....	16
• Fact-Gathering	16
• Sequence of Reliability.....	16
• System Biases	16
• Personal Biases	17
2. System Reliability and the Influence of Biases	17
Institutional Biases Within Systems.....	17
• System Access.....	17
• Communication	18
• Education/Training.....	18
• Policies	18
• Monitoring and Measuring	18
3. Human Performance Factors Related to Biases.....	19
Influence of Bias on Assessment of Knowledge, Skills, Abilities, & Proficiencies (KSAPs):	19
• KSAP Challenges for Customers	19
• KSAP Challenges for Workers.....	19
• KSAPs of Workers to Avoid Bias and Discrimination	20
System, Personal, and Cultural Influences on Biases	20
• System Influences on Biases	20
• Personal Influences on Biases	20
• Cultural Influences on Biases	21
4. Behavior Assessment of Bias.....	21
Clear Expectations to Guard Against Bias?	21
Policies to Manage Bias?	21
Impossible to Avoid Bias?	22
Human Error? (Implicit Bias)	22
Justifiable Choice of a Biased Action?	22
Choice to Act with Bias? (Explicit Bias)	23
Appendix A – Bias Checklist.....	24
1. Seeing and Understanding the Risk (of Biases)	25
2. System Reliability (Managing Structural/Institutional Biases)	25

Table of Contents



- 3. Human Performance Factors (Contributors to Personal Biases).....25
- 4. Human Behavior (Related to Biases).....26
- Appendix B – Examples of Marginalized Groups27**
- Appendix C –29**
- Summary Table of Seeing, Understanding, & Managing Biases.....29**

Overview of Biases in Reviews



Purpose

In recent years, many organizations have placed an increased focus on diversity, equity, inclusion, and belonging (DEIB) issues and have been more sensitive to the potential impact of biases. In fact, equity is included as one of the key attributes required of a Collaborative High Reliability Organization (CHRO). In addition, there are numerous other cognitive biases (not specific to DEIB issues only) that can also influence our perception of risk. These have been studied and described extensively by psychology and human factors experts. And yet, when analyzing risk events, few organizations utilize any tools to help them be aware of the possibility of existing biases. For this reason, a [Bias Checklist](#) tool has been developed as a cognitive aid to help guide Safety, Quality, and Reliability Teams to better see, understand, and manage the risk of bias during risk analysis. This primer was written to provide information about common biases and serve as a guide to facilitate use of the Bias Checklist.

Definition and Reason for Biases

Bias may be defined as *“a particular tendency, trend, inclination, feeling, or opinion influencing one’s perspective while inhibiting objectivity.”* Related to biases is the work of world-famous psychologist and Nobel Prize winner, Dr. Daniel Kahnemann, who theorized a differentiation between two different modes of thinking and how we make decisions. “System 1” is an automatic and immediate mode of thinking, and how we make decisions most of the time because it is much faster. As explained below, our biases result from our System 1 thinking. System 2, used for critical or analytical thinking, requires attention and effort, and is therefore slower and less often utilized to make decisions in our daily activities. The concepts associated with this theory on decision-making are widely accepted by social psychologists and behavioral scientists and have been cited in numerous psychology and safety publications.

Significance of Biases

Many psychologists have explained that biases are formed from experience and can be helpful. It is believed that biases evolved as a requirement for survival and started when humans were forced to make quick judgments about threats in the environment, whereas complex problems needing analytical thinking (e.g., math problems) came along much later in our evolution. Today, we all utilize biases to make decisions whether it is avoiding someone lurking in a dark alley or eating a meal we assume will be delicious and healthy. Biases are crucial when quick decisions are necessary. For example, if patients need immediate treatment, healthcare providers must often make snap decisions before a diagnostic workup can be completed. If a crisis suddenly arises while flying an airplane, pilots may need to act similarly without exhaustively exploring all possible actions to avoid a catastrophe (It took mere seconds before Capt. Sullenberger made the decision to land the airplane in the Hudson River). In fact, there are many industries where workers rely on biases to perform with the efficiency required to prevent harm.

However, in a Collaborative Just Culture Program, we must also recognize the risks associated with biases. There are two processes in a CJCP that warrant nuanced attention to seeing, understanding, and managing biases: 1) both Collaborative Risk and Triad Reviews, and 2) Triad Reviews. In both processes we start with Seeing and Understanding risk, which includes our biases. Then we look for contributors to risk from the System, Human Performance Factors, and Behavioral choices and errors. When our teams meet to analyze a risk event, unlike those involved in the event who were likely operating in System 1 mode, there is usually sufficient time available to allow team members to use System 2 processes and critically assess the contributors that led to the adverse outcome. One of our

Overview of Biases in Reviews



goals in a CJC program is to ensure that individuals who were involved in a risk event are treated fairly. This means that we must put things in context and guard against biases that can influence our perspective. In addition, a Review should identify the presence of biases in our sociotechnical systems and how they may impact certain patients or providers. This document aims to provide guidance on how we might better see, understand, and manage the risk of biases. We must remember that, due to the implicit nature of biases, identifying the existence or influence of biases in these categories can be challenging. Might we have personal biases that influence how we see the contributors to risk? In addition, a Collaborative Risk Review might reveal implicit biases as separate risks that were not previously recognized.

Discrimination Against Marginalized Groups

When critically analyzing a risk event, we have an opportunity (and an obligation) to check for potential biases within our sociotechnical systems, *and* we must also guard against our own personal biases. As mentioned earlier, all of us have formed biases to live more efficiently in the modern world. For better or (often) worse, this includes biases related to different cultures and demographic groups we are unfamiliar with. When the perception of a specific group of people results in them being excluded or discriminated upon socially, politically, economically, or professionally, they are referred to as a marginalized group. A [marginalized group](#) is a subset of people typically associated with a specific race, ethnicity, religion, culture, gender, age, generational cohort, sexual orientation, socioeconomic status, disability, or other trait shared by that group. These groups are often in the minority, less advantaged, or have different social practices or beliefs.

Importantly, “culture” can also refer to the beliefs and behavior of a specific cohort. For example, culture can vary in different organizations, different departments, or even different shifts in the same work unit. Furthermore, cultures and our perceptions of them can change over time which means that culture is generally determined in the location and time that people share together.

Collaborative Effort to See and Understand Biases

We tend to see things through a lens that has been colored by our own past experiences. Although we now understand that everyone has biases, we also know that no one has experience with all cultures. In CHRO terminology, it means that most of us have rather low Risk Intelligence about biases that can negatively impact people from cultures or groups who are different from us. And when a bias goes unrecognized, it has the potential to become an institutionalized trait of the organization, i.e., Institutional Bias. This is why it is desirable or even necessary, to have diversity in our teams to help us see and understand the risk of biases.

Regardless of how determined we are to not be biased against anyone, Reliability Management Team members are still human and do exhibit biases. Although we can sometimes see or suspect bias in *other* people, it cannot be overstated that *it is extremely difficult to see bias within ourselves*. In other words, most of our personal biases are implicit. The reality is that we often need help to see our own biases. Once again, we must be collaborative in this endeavor and allow others to help us be aware of potential biases and when we may be influenced by them. Developing strategies and tools can also provide help for the entire team to see and understand bias.

Overview of Biases in Reviews



Being told we may be biased is not something most people like to hear. Reliability Management Teams must establish a culture where team members maintain curiosity, routinely conduct deliberate introspection, and have the psychological safety to question each other about bias. Having these elements ingrained in our Review “system” encourages seeking and accepting help from each other and may be the most effective way to manage the risk of biases in our analysis of risk events.

Experience has shown that conversations about bias can sometimes get heated and people may take a defensive posture particularly when bias is implicit and not recognized by an individual. From a Human Factors perspective, we understand that people often feel uncomfortable when the cause of an adverse event is unknown especially if the outcome was severe. We tend to look for and settle on a cause quickly to be rid of that internal discomfort. Instead of taking what may be considerable time and effort to critically analyze an event and understand context of actions and decisions, often a much faster, cheaper, and easier solution is to blame an individual.

Additionally, when discussing the risk of bias in an event, some may demand evidence proving that bias was the cause. This is clearly difficult to know in most cases and even when bias was present, it is unlikely to be the sole cause. But did a specific bias play a role as a *contributor*? In any risk analysis we are looking for all contributors to an adverse outcome, and this might include biases which are easily overlooked. At the beginning of a Review, the facilitator should dedicate some time to remind everyone about biases and allow time for introspection to check for biases in ourselves individually, or perhaps within the entire group. We should also utilize tools (such as the [Bias Checklist](#)) and ensure the Review process is designed to help us identify and manage potential biases. The following sections of this manual are intended to provide explanations and examples related to common biases and how to guard against them.

Common Biases



The list and descriptions below are intended to illustrate common biases seen in both Collaborative Risk and Triad Reviews. Many biases are often not recognized by the team, or especially by individuals, during a risk analysis. The explanations and examples provided below are intended to help team members see and understand these biases. It is beyond the scope of this document to discuss all potential biases that may exist. The list is not all-inclusive.

Blind Spot Bias – Blind Spot Bias is the tendency to see oneself as less biased than other people. This bias is extremely prevalent (studies have shown that nearly everyone has a blind spot bias) and supports the claim that biases are very difficult to see in ourselves.

- *e.g., Physicians claim that gifts from pharmaceutical companies do not affect their decisions about what medicine to prescribe. However, most physicians believe that other physicians are unconsciously biased by the gifts.*

Outcome Bias – Outcome Bias is the tendency to assess a decision or action based on its outcome rather than an assessment of that decision/action at the time it was made. In other words, the decision/action may be assessed more harshly (over-reaction) after a bad outcome and less so (under-reaction) if there was no bad outcome or was less severe.

- *e.g., A classic example is the driver who ran a stop sign and killed a pedestrian. Assessment of the driver's action may be influenced by the tragic outcome and be judged more harshly. But if the driver ran the stop sign but luckily did not hit anyone, the error is seen as less severe even though the risk is the same.*

Hindsight Bias – Hindsight Bias is very similar to Outcome Bias. It is a tendency to overestimate one's ability to predict the results of a decision *after* the outcome is known. After the outcome is known, the correct decision becomes obvious.

- *e.g., Emergency Physicians must activate a Trauma Team Alert to ensure critical patients are taken to the Operating Room as quickly as possible to maximize probability of survival (the "golden hour of trauma"). Sometimes, ED physicians are notified about a pending arrival of patients from a high-speed car accident with initial vital signs that are normal (but might decompensate before arrival). The responding Trauma Team may question the decision to sound the alert but sometimes, (only) after learning the patient is stable, the responding team might say, "I knew a Trauma Alert wasn't needed"*

Fundamental Attribution Bias – a.k.a. Fundamental Attribution Error, this is a tendency to over-emphasize a fundamental character flaw as the reason for a person's actions or error, instead of considering situation and context. After a risk event, this can contribute to a bias toward behavior and, in fact, many approaches that have been used for risk analysis have started with an assessment of behavior before (or without) first understanding context by considering risk perception, competing priorities, system issues, or human performance factors.

- *e.g., When a child entered the enclosure at the gorilla exhibit at the Cincinnati Zoo, many people quickly accused the mother of not watching her child because she was not careful. Some may have said, "I would never let my child out of my sight." However, at that time, none of the other parents (or the zoo) saw the risk of a child entering the enclosure. Fact-gathering revealed that*

Common Biases



the exhibit viewing area had widely-spaced cables and a hedge that a child could easily slip through. Also, the child's mother was the director of a pre-school program and parents of the pre-school children all praised her child care skills.

Manager Bias – There are many different biases that can influence managers, including others described in this list. However, there are a few that tend to be very common in those who have the responsibility of managing others in their department, including:

- **Policy Bias** – a common bias of managers is related to an over-emphasis on policies. Managers typically know the rules in their own department and one of their primary responsibilities is to make sure employees follow them. This creates a tendency to focus on rule-following and not look for other factors influencing the worker's decisions or ability to perform. Managers might also assume that employees understood the expectations of the organization simply because they were provided in a lecture, email, memo, etc. i.e., assuming the information was received and understood simply because it was delivered.
 - *e.g., Two new nurses were fired after they violated a policy to contact their Nurse Preceptor before practicing with a new piece of equipment. The nurses claimed they were not aware of the policy but the Nurse Educator insisted that the policy was explained in a Power Point presentation during orientation. However, when polled, none of the other new nurses were aware of the policy either.*
- **Likeability Bias** – where a person is assessed more favorably based on how well-liked they are. Besides personal traits such as personality, appearance, social skills, etc., this situation often arises when a manager has had fond encounters in the past with that individual. The converse situation occurs as well when a manager has a dislike for an employee and treats them more harshly because of it.
 - *e.g., An employee violates a rule for not obtaining a double-check for a medication. The manager, who is not fond of this employee, sternly reprimands the employee and places a written warning in the employee's file. Later, another employee also violates the double-check rule but that employee is well-liked and the manager decides to give them a break and not discipline the employee even though they broke the same rule.*

Employee Bias – Employees are also subject to different biases including some of the same ones listed above. One that is in direct conflict with the perspective of managers is believing they are justified in not following a rule. This belief may be driven by any number of reasons, but a very common rationale is thinking that the rule is not valid because the person who made the rule or the manager enforcing the rule doesn't work at the front line. This bias can lead to not seeing or understanding the risk the rule is meant to manage. In other words, employee bias often influences **At-Risk choices** where most or a significant number of workers are not following the rule and this creates a [Normalcy Bias](#) or a "**Normalization of Deviance.**"

- *e.g., Many hospitals have a policy for not using the copy and paste function to enter a new note in a patient's EHR. However, it has been shown a majority of hospital providers frequently copy and paste parts of a previous note into a new one believing that productivity goals obviate the "no copy and paste" policy.*

Common Biases



Professional Bias – Similarly, there are different forms of “Professional Bias.” Some that have been described include:

- **Role-Specific Bias** – The role an individual serves in the organization obviously determines their primary responsibilities, and the nature of their day-to-day work habits can influence their Risk Intelligence and Risk Tolerance which therefore biases their perception of risk.
 - *e.g., The responsibility of Risk Management Professionals is related to protecting the organization from liability. However, liability is generally dependent on the severity of outcome, so their perception of risk is biased by the outcome. If a risk event did not result in serious harm, they may not appreciate the risk to the organization. Even in cases involving a near-miss (and no harmful outcome), Reliability Teams must remain focused on seeing, understanding, and managing the risk.*
- **Status-Related Bias** – This occurs when an individual is assessed differently based on their profession or status in the organization. There is sometimes a tendency to assess someone more favorably based on their job title. Especially if the person’s accomplishments are particularly impressive, we may be influenced by a “halo effect” and place them on a pedestal. This can influence others to not question or scrutinize their decisions or actions.
 - *e.g., When hospitals go live with a new EHR application, training on its use is typically mandatory for all providers. However, some hospitals may be more forgiving if a physician chooses not to attend.*
 - *e.g., A physician is allowed to not follow a policy because the organization believes his role will be difficult to replace if his employment is terminated.*
- **Implicit Bias in Standards** – Professional Bias has also been used to describe a situation where an organization’s definition of “professionalism” is influenced by implicit biases of those who create the standards for the profession.
 - *e.g., Medical staff bylaws might define “professional” appearance of physicians and require western hairstyle and dress while banning dreadlocks, beards, burqas, etc. which may be considered appropriate for professionals in other cultures and the community they serve.*

Confirmation Bias – Confirmation Bias is a tendency to favor information that confirms or strengthens what one already believes or values. The major risk of Confirmation Bias is that it is a precursor for Cognitive Dissonance. If a person has two or more conflicting beliefs, there is a tendency to decide on one over the other to avoid the stress of uncertainty. Once the person chooses one, there is a tendency to rationalize their choice by favoring or only seeking evidence to support that choice. In other words, we wish to self-justify our beliefs and not consider evidence that may prove we are wrong. Confirmation Bias may be a contributor in cases of misdiagnosis.

- *e.g., A 49 year-old male construction worker arrives in the ED c/o severe back pain. He says that he has had episodes of back pain in the past especially after heavy lifting at work and he carried a lot of heavy bricks yesterday. The physician believes the patient likely has a strain of his back muscles. His questions and physical exam are focused on looking for a musculo-skeletal cause and not looking for evidence of other sources of the pain (such as Aortic Dissection or Ureteral stones).*

Common Biases



- *e.g., If an individual has personal views supported by a political party, they tend to favor (or only view) editorials on media stations who favor the same views. The majority of politically right-leaning people view Fox News channel, and politically left-leaning people view CNN or MSNBC.*

Groupthink Bias – The vast majority of humans have an inherent need to feel they belong to a group of people. This desire for harmony or conformity within a group can be powerful enough for people to even deny their personal beliefs and go along with the prevailing opinion of the group. This is similar to what has been called the “**bandwagon effect**” (a person “jumped on the bandwagon” because everyone else did, said, or believed it) or created an “**Abilene Paradox**” where everyone in a group accepted a decision even though no one was in favor of it because they each thought everyone else did.

- *e.g., During morning rounds, a Resident believes that a diagnosis being used by the team for treatment decisions does not explain all of the patient’s symptoms. But instead of raising his concerns, the Resident assumes that the group must be correct and does not speak up or offer his honest opinion.*

History Bias – History Bias is a tendency to base our assessment on a prior unrelated event or experience instead of treating a specific event, action, or decision in the context at that time. This is sometimes seen when a finding is thought to be “causal” or contributory to a risk but there happens to simply be only a correlation.

- *e.g., When news of SARS-CoV-2 first broke in 2020, it was identified as a coronavirus. Since we had experiences with coronaviruses including SARS which we were able to control in years past, we initially did not see the severity of the risk of transmission of SARS-CoV-2.*

Investigator Bias – Investigators and Fact-Gatherers may be biased for different reasons such as external influences, outcomes, confirmation bias, etc. Other biases specific to Fact-Gatherers to be aware of include:

- **Availability Heuristic** – In fact-gathering for a Review, Fact-Gatherers must also not succumb to History Bias (described above) or a Recency Bias where familiarity with a recent event or the contributing factors found in a previous (but unrelated) event are available for their System 1 thinking to reflexively jump to. Simply hearing a word can sometimes trigger this type of bias.
 - *e.g., A woman fell down and injured her elbow and calls a physician in her family. He tells her over the phone that based on their conversation, he thinks she has a Radial Head fracture but should see her personal doctor. When the woman sees her personal doctor, she mentions the Radial Head fracture mentioned by her family member which can influence her personal doctor’s diagnosis. If the personal doctor had arrived at the same diagnosis without hearing it first, it would be an independent double-check and much more reliable.*
- **Data Bias/Information Bias** – Fact-Gatherers must also beware of a tendency to rely on or over-emphasize or focus only on a specific data object instead of considering if data may be incomplete or inaccurate. Some instances require looking at the strength of the data and if it is

Common Biases

supported by multiple sources or other evidence. Fact-Gatherers must avoid the “**focusing effect**” of tunneling their vision only one particular data set and not see the whole picture. They must also guard against **Confirmation Bias** and be mindful of looking for other data which might disprove their hypothesis.

- *e.g., For many years, the eGFR (estimated Glomerular Filtration Rate) test for kidney function included a race coefficient based on a study that showed Black people had higher creatinine levels than White people. However, it was later found that the study had significant flaws and in 2021, the National Kidney Foundation announced a new equation which does not include a race coefficient to calculate eGFR.*

Self-Serving Bias – This bias is a tendency to take credit by attributing successes to personal actions and internal factors and blaming failures or negative results on other external factors. This distracts our focus away from the risk being managed and can prevent us from finding contributors and learning from errors. Self-serving bias may also refer to a perception of a risk only as it pertains to oneself.

- *e.g., If a physician examined a patient but failed to illicit a detailed history, he might explain away the failed expectation to external pressures such as “I was busy that day.” Although Competing Priorities should be reviewed, we should also be aware that people have a tendency to immediately attribute our personal failures to factors which we believe are part of the profession and unavoidable instead of analyzing poor choices we may have made.*

Normalcy Bias – Normalcy Bias is a tendency to underestimate the severity or likelihood of a particular risk/event. In other words, it is a lowered Risk Intelligence and based largely on not having experienced an adverse outcome. When we have been repeatedly alerted to a potential risk which did not result in a bad outcome, we become desensitized to it and we no longer see the risk, i.e., the risk becomes “normalized” or a “normalization of deviance.” It allows us to continue believing everything is normal, something we inherently desire.

- *e.g., The most familiar example of Normalcy Bias is Alert Fatigue. Doctors and Nurses are constantly exposed to visual and audible alerts from various patient monitoring devices and EHR systems but many of those alerts do not correlate with an immediate or severe risk. In time, the alarms and pop-ups become “noise” or normal events in a day influencing workers to make an (At-Risk) choice to ignore or silence alarms.*

Implicit Bias – Implicit bias is a negative attitude against (or a favoring attitude towards) a specific culture or category of people that one is not consciously aware of. These tend to be subtle or expressed without complete awareness. Implicit bias is thought to arise from what we perceive from our experiences with social categories and the qualities we have seen, attitudes we develop, and stereotypes that are formulated. While all biases are hard to see in ourselves, this is especially difficult for many of us to accept because it goes against the diversity, equity, and inclusion values we are trying to advance. If we were to take the Implicit Association Test, most of us would be surprised by results showing our implicit biases against specific cultures or categories of people. For example, in healthcare such biases can have a tremendous impact on different groups including people of color, other religions, the elderly, the LGBTQ community, or those with mental illness, language deficiencies, physical disabilities, and many others.

Common Biases



- *e.g., Most female physicians likely have no problem recalling an incident where a patient assumed that they were a nurse (and not a physician) simply because of their gender, sometimes even when “M.D.” is printed on their white coat. Numerous examples in other domains have been told by women airline pilots, mechanics, lawyers, and others, as well as implicit biases related to various minorities based on race, religion, or other cultures.*

Explicit Bias – In contrast, Explicit Bias is a preference, belief, or attitude against (or favoring) a group of people which the person is consciously aware of. They often stem from long-held stereotypes about certain cultures or demographic groups that have never been challenged or properly analyzed scientifically. Typically, explicit biases are expressed overtly and sometimes unabashedly. Sometimes, wrong or misleading conclusions result from studies corrupted by metrics that favor one group over another. This can lead to erroneous beliefs which can then be used to self-justify racism or amoral ideologies.

- *e.g., A Medical Student gets an answer wrong on a written exam. After reviewing the question, he realizes that the question was ambiguous, and the answer depends on how the questions is interpreted. The student, an Asian American, informed the Physician examiner about the ambiguous wording of the question. The examiner, who is a White American, looks at the question briefly, and says, “I think you have a (English) language problem”, when in fact, English is the only language the student has ever spoken.*

Institutional Bias – While the issue of Implicit Bias is typically raised when discussing biases of an individual, Institutional Bias refers to system components within an organization including policies, practices, and system structures that can create inequities for marginalized groups of people. Institutional Biases can result in various issues for subsets of customers involving access to care, engaging with employees, disparities in the quality of service, and ultimately worse outcomes for certain cultures and categories of the population.

- *e.g., A hospital may decide to streamline care for patients by enabling online registration for appointments to their Primary Care Clinic. However, many of the patients in this population are of the age that computers were not available until late in their life. They may not be skilled in using one or might not even have one. Similarly, those living below the poverty line might not be able to afford one. Yet, these groups of patients as much as any other, require quality primary care.*

Structural Bias – A bias similar to Institutional Bias is Structural Bias, which refers to the influence of structures, laws, policies, and practices in the community (external to the organization) that create inequities for marginalized groups of people. Similar to barriers within the organization, Structural Bias can decrease or limit access, quality and safety of care for certain groups of people. Although Structural Bias is also referred to as “Systemic Bias” by some, using the term “Structural Bias” avoids confusion with organizational “systems” typically discussed in the Reliability Response Guide.

- *e.g., A Primary Care Provider regularly provides a refill prescription for a patient. However, the PCP discovers that a patient has not been compliant with taking the medication since the last visit. Upon questioning the patient, it is discovered that the area the patient lives in is a “Pharmacy desert” where the only pharmacy in the neighborhood recently closed. The closest available pharmacy is located 5 miles away and the patient does not own a car.*



Bias Checklist

As mentioned, the first step in recognizing and avoiding bias is to draw attention (System 2) thinking to the potential for bias. However, detection can be difficult and most of us could likely use help to be aware that a bias might exist. The [Bias Checklist](#) (see Appendix A) was designed for this purpose. It includes questions that can alert us to situations that may have biases attached. To be clear, the checklist is not intended to be an exhaustive list of questions that will eliminate all biases. Rather, it is simply a starting point for discussion about the possibility of unconscious/implicit (or explicit) biases and a reminder for reliability teams to direct some attention to a common problem in risk analysis.

There are dozens of biases that can influence our perception of risks and behaviors, and most people are unfamiliar with many of them. However, lengthy checklists tend not to be used completely (making them ineffective), and over time, tend not to be used at all. For that reason, this tool is limited to a single page and includes questions designed to have team members consider the possibility that a bias may exist.

It is hoped that the Bias Checklist can help Team Members recognize and guard against their own personal biases and to look for potential biases within both Systems (structural or institutional biases) and the individuals involved in the event which may have *contributed* to the Risk Event itself. In some cases, implicit biases might even be discovered coincidentally as separate risks even if they did not contribute to the event.

How to Use the Bias Checklist

The Bias Checklist is meant to be used as a quick reference tool before and/or during analysis of a risk event. In a formal Collaborative Risk or Triad Review a trained Facilitator guides the team by utilizing the Reliability Response Guide (RRG) tool to ensure they are following the Sequence of Reliability.

Facilitators understand that it is important to recognize and guard against biases from the very first step of the sequence and they often ask team members when they open a Review to reflect on the potential for biases. In fact, the last bullet under “*See and Understand Risk*” of the RRG, inconspicuously asks, “*Do biases exist?*” However, as we mentioned, teams often still have difficulty detecting the presence of bias during the analysis. For that reason, it is recommended that reliability teams and others analyzing risk events review this manual to better see and understand common biases and consider inclusion of the Bias Checklist in the Review process.

Lengthy checklists tend not to be completed. The one-page Bias Checklist is a series of four different checklists, one for each of the first four steps in the Sequence of Reliability. The questions in each section relate to the part of the analysis being done. For example, when we are discussing the effectiveness and resiliency of a system, is when we would consider the three different questions listed in the System Reliability section of the Bias Checklist, so each section of the Bias Checklist is utilized at appropriate times during the analysis. Remember that Human Reliability (individual performance or behavior) issues, when they are identified, are referred to the local unit manager to manage. Therefore, local unit managers should be provided with copies of the Bias Checklist and this manual. This is especially true when disciplinary action or Triad Reviews are involved.



Proactive Use of the Bias Checklist

Reliability Teams have been trained on how to utilize the RRG to help them create or redesign a system even if an adverse event has not occurred. Similarly, the Bias Checklist also can, and perhaps should, be used proactively.

For example, in designing a system, teams must first see and understand the risk (i.e. follow the Sequence of Reliability) they are trying to manage. To be highly reliable, we must also consider if there are any biases influencing their understanding of the risk. By following the Bias Checklist, they would consider (at a minimum):

- Are any marginalized populations at risk?
- What are the organization's (and individuals') perceptions/biases toward those populations?
- Would the system being designed manage the additional challenges faced by those customers?
- Is the data being used to support the planned system using metrics that apply to marginalized populations?
- Do the planners have deficiencies in KSAPs related to specific groups of customers?
- What common errors or choices related to biases might be made by our staff working in this system?

Counterfactual Statements

A key technique to guarding against bias is the use of Counterfactual Statements. A counterfactual statement is a conditional sentence used to discuss a risk under different circumstances. Changing a specific detail of an event can help teams identify if an implicit bias may exist. For example, if there is a concern of an outcome bias when assessing a decision or action after a catastrophic outcome, we might analyze the same decision or action by changing the scenario to one *without* a bad outcome. This can allow us to assess the risk without the powerful influence of an outcome that is emotionally provoking.

Similarly, when there is minimal harm from a risk event, if we hypothetically insert a bad outcome, would we still perceive the risk as minimal?

If there is concern about Structural Bias when assessing system effectiveness in managing a risk, we might analyze the system by changing the cultural group using the system; e.g., Instead of an affluent, insured, White person engaging the system, would the system still be effective in managing the risk if the customer is a poor, uninsured, person of color?

Subject Matter Experts

No single individual fully sees and understands all biases. If an identified bias is not clearly understood and needing further explanation to better see, understand, and manage a risk, the team should consider assistance from a subject matter expert (or a team of SMEs) on discrimination, a specific culture, demographic group, or other issue needing clarity. This may be necessary to gain sufficient Risk Intelligence on a specific subject to more fully see, understand, and manage risk.



1. Seeing and Understanding the Risk of Biases

Collaborative Risk Reviews (CRRs) and Triad Reviews are vital components of a Collaborative Just Culture (CJC) program that provide a consistent and fair response by the organization to providers involved in a risk event. As we have learned, whenever we analyze a risk event, we must first start by seeing and understanding the risk(s). This includes trying to understand the risk perception of not just those who were involved in the event but also how team members perceive the risk while analyzing the event. Each of us have different amounts of Risk Intelligence, Risk Tolerance, past experiences, *and* biases. On this basis, *bias can be, and often is, a risk.*

A common bias of team members stems from the fact that within a diverse team, each person has a different role and responsibilities that determine the focus of their everyday jobs and shape their perspectives of risk. For example, the aim of financial officers is obviously on costs and revenue, whereas risk management professionals and malpractice attorneys are primarily concerned about liability protection, while operational managers are intently focused on delivering a service or work product. It is easy to see how every one of these roles and responsibilities come with an inherent bias (known as a Professional Bias) on how we see and understand a risk. This document will describe that and many other biases which both team members and/or those involved in a risk event may have.

As outlined above, numerous biases pose a risk to the effectiveness of a CRR or Triad Review. Consistent with the Sequence of Reliability, we must first see and understand the risk of biases to manage them optimally. All individuals conducting a Review should be aware of different types of biases and the powerful influences they have on those analyzing a risk event. As much as possible, organizations must provide training on common biases and how to recognize and guard against them.

Questions About Biases in Our Perception of Risk

• Fact-Gathering

- Have all the facts been gathered before analyzing an event?
- Has countervailing evidence also been considered?
- Are all team members allowed (and encouraged) to speak up?
- Are their opinions being explored and discussed if theirs are different from the majority?

• Sequence of Reliability

- Is the team utilizing the Reliability Response Guide?
- Are team members assessing behavior first (without seeking context) and focused on blame?

• System Biases

- Is any involved person from a marginalized population? (see Attachment C)
- How is the marginalized population perceived and treated by organization's systems?
 - i.e., Might there be an *Institutional Bias/Racism*?
- How is the marginalized population perceived and treated by the community's systems?



- i.e., Might there be a *Structural Bias/Racism*?

- **Personal Biases**

- Are team members viewing the risk from the perspective of their primary role (only) in the organization?
- Is the team comprised of a diverse group of people and roles to provide different perspectives?
- Did the event result in a severe outcome creating an over-reaction? Or is the perception of risk minimized because of no (or minimal) adverse outcome?
- Have team members personally experienced the same or similar type of risk event in the past?
- Do team members have a personal relationship or past experience with anyone involved in the event?
- Have team members experienced or analyzed a similar type of risk event recently?
- Do team members have strong attitudes/beliefs/perceptions of a specific marginalized group?

2. System Reliability and the Influence of Biases

Organizations spend much of their resources to design and develop systems to provide services that are safe, of high quality, compassionate, “customer-centered”, and other desirable traits.

However, as we mentioned earlier, organizations have become more aware of biases in their systems which can create issues for certain demographic groups and are risks to *equity* (one of the essential attributes in a CHR organization). During a Review, institutional (or structural) bias may be discovered as a contributor to the risk event or perhaps as a separate, unrelated risk. In either case, institutional and structural biases can disadvantage customers and/or the employees working in a sociotechnical system, and we must therefore be vigilant about recognizing them whenever we analyze a system.

When analyzing System Reliability, teams are focused on assessing how effective and resilient the system manages the specific risk it was designed for. What might be harder to notice is if certain cultures or groups of customers are affected differently or if certain cultures/groups of workers face more challenges working in the system. In other words:

Is the System still Effective/Resilient in managing risk for other cultures/groups of customers (or workers)?

Institutional Biases Within Systems

Implicit biases can influence our ability to recognize inequities in our sociotechnical systems. Below are some areas to consider when assessing System Reliability for potential structural biases against certain groups of customers and/or workers.

- **System Access**

Analyzing Biases Using the Sequence of Reliability



- How is the system designed to receive customers? What is required of the customer? e.g., Can disabled people utilize the system? What about customers who don't own a car? Those without a computer or phone?
- How must workers interface with the system? Do members of certain cultures or groups face greater challenges working in the system than others?

• Communication

- How does the system communicate with customers? In what languages? For those with vision/hearing impairment, or other disabilities?
- What methods are used to communicate with employees and other workers?
- e.g., Are risk reporting (or other) forms in different languages? Are the workers in the department likely to use a computer in their role?

• Education/Training

- How do educational programs deliver content effectively to different cultures/groups of customers? Are there resources to assist customers navigate language or cultural issues? i.e., Are informational brochures understandable by non-English customers?
- How do employee on-boarding or training programs deliver content effectively to different cultures/groups of workers? Are training sessions understandable by workers with English as a second language? Do skills labs accommodate workers with handicaps? Are there resources to assist employees with limited language skills during training sessions?
- What kind of training is provided for workers to raise awareness of different cultures/groups and how best to assist customers from those groups?

• Policies

- Does the organization make accommodations for customers from different cultures/groups? Why or why not?
- Does the organization make accommodations for workers from different cultures/groups? Why or why not?
- Do certain roles or departments in the organization receive more privileges than others? Why or why not?

• Monitoring and Measuring

- How effectively and resiliently are systems managing the risk of implicit/structural bias? Are these being monitored and measured?
- What metrics are being used? Are the metrics appropriate for members from a different culture or group?
- When system re-design proposals are made, are they being scrutinized for adverse



impacts on different cultures or groups?

3. Human Performance Factors Related to Biases

Influence of Bias on Assessment of Knowledge, Skills, Abilities, & Proficiencies (KSAPs):

- **KSAP Challenges for Customers**

In the section above related to Structural Bias, we saw how organizations might not be cognizant of challenges faced by *customers* from other cultures to have the knowledge, skills, abilities, proficiencies (in addition to personal resources) necessary to fully utilize our systems.

- Do they have sufficient **knowledge** of how to access and utilize the system?
 - e.g., contact phone number, address, prerequisites, etc.
- Do they possess the necessary communication or technical **skills**
 - e.g., language, computer skills, etc.?
- Do they have the **ability** and resources to use the system to meet their needs?
 - e.g., transportation, finances, insurance, internet access, etc.
- Will they continue to have the ability and resources over time if the system changes? (e.g., changes in facility location, business hours, bus/train routes, etc.)

- **KSAP Challenges for Workers**

Similarly, when assessing Human Performance Factors of workers, team members must avoid making assumptions about the KSAPs of workers from other cultures and consider if impacted by additional challenges.

- Is the **knowledge** necessary for the job provided in a language they are comfortable with?
 - e.g., Do they fully understand the content in-service training, prescriptive processes, checklists, risk reporting forms, etc. Or do their English language skills not meet the minimum standard expected for their role?
- e.g., A Housekeeper may need to have a minimum ability to speak or read English, but a Customer Service representative might be required to be extremely proficient in the English language.
- Are the required communication, technical, or other job **skills** more exceedingly difficult for people from other cultures? Are reasonable accommodations for certain cultures necessary? are system improvements necessary for all workers to improve skills?
- e.g., Is a worker with limited language skills **able** to read signs and labels, operate machinery or equipment, etc.? Do training and in-service programs need to be revised to be effective?
- Is a person from another culture *able* to sufficiently apply their knowledge and skills to work with colleagues and serve customers effectively? e.g., Can a worker with an ethnic

Analyzing Biases Using the Sequence of Reliability



or regional accent able to communicate effectively with others? Do religious practices interfere with their ability to perform a procedure? Will they be able to continue performing their job **proficiently** (effectively over time in different situations? e.g., Can an ESL customer service agent manage a difficult fast-talking customer?

- **KSAPs of Workers to Avoid Bias and Discrimination**

Organizations should (and generally do) have an expectation for workers to have awareness of bias toward minority groups or other cultures, and to avoid discrimination. In a situation where the organization has concerns about potential bias/discrimination by a worker, we must assess if the individual possessed the KSAPs necessary to recognize and guard against it.

- Does the individual have sufficient knowledge of what words/actions are insulting or hurtful to other cultures?
- Does the individual have the necessary skills to communicate effectively (and without offending) other cultures?
- Does the individual have the ability to communicate and work together in the work environment with actual people from other cultures?
- Is the individual able to continue communicating and working together in various departments or settings?

System, Personal, and Cultural Influences on Biases

- **System Influences on Biases**

- How is information provided to customers from different cultures or certain categories of individuals? e.g., elderly, non-English speakers, etc. Are any modifications necessary? Why?
- How is training or new employee on-boarding provided for employees from different cultures? Are any modifications necessary? Why? Have they been provided with access to assistance and resources that all workers should have?
- What training is provided to workers related to understanding different cultures?
- What policies or organizational expectations are in place to manage bias?

- **Personal Influences on Biases**

- What culture(s) does the individual come from or have experience with?
- What attitudes/assumptions related to other cultures do we have that are different from how we think of our own?
- (Guard against many personal biases including Confirmation, History, Groupthink, Fundamental Attribution, and many other biases)
- Does/did an individual have high/low status in the organization or the community? How is their role or status perceived (Avoid Professional Bias, Halo Effect, Horns Effect, etc.)

Analyzing Biases Using the Sequence of Reliability



- Do team members have a current or past relationship or experience with any of the involved people, departments, units, processes, equipment, etc. in an event? (Avoid Likeability Bias, History Bias)
- Would an action/decision from the Review result in any potential benefits or risks to any of the team members? (Avoid Self-Serving Bias)

• Cultural Influences on Biases

- Team members should remember that “culture” may be related to ethnic, gender, religious, generational cohorts, political affiliations, physical differences, organizational units, shift times, or other traits that are different (typically from the majority).
 - How diverse is the demographics of the workforce? Of the community?
 - Does a customer or employee come from a particular culture with its own biases which may be influencing how they engage with the organization?
- What are the prevailing attitudes/beliefs related to different cultures in the work unit? In the community?
 - Does a worker belong to a particular religious, ethnic, racial, or other type of culture/cohort that has discriminatory beliefs about other cultures?
 - Does a bias toward other groups exist in the unit the provider works in?
- Is there a hierarchy in the work unit?
 - How is an individual’s role perceived within the hierarchy? How does that influence the individual’s performance and behavior?
 - Is everyone in the work unit encouraged (or allowed) to speak up if they have a different opinion?

4. Behavior Assessment of Bias

Clear Expectations to Guard Against Bias?

- Did the individual clearly understand how specific actions or words may be discriminatory?

How do we know that? What is the understanding of peers (others in the same role within that work unit)? Do the peers all have similar exposure/familiarity with other cultures?

- *e.g., A white female Certified Nursing Assistant tries to help a non-English speaking patient who seemed to be asking to use the toilet. The CNA’s husband is of the same racial ethnicity as the patient but only knows a few words of the foreign language. The CNA has learned a few words from her husband including slang terms which are crass and probably inappropriate for a provider to use with patients. She used a slang term for “toilet” when she asked the patient what he needed. She did not understand that the word she used is a crude term in that culture and the expectation to not use it was not made clear to her.*

Policies to Manage Bias?

Analyzing Biases Using the Sequence of Reliability



- Is there a policy that addresses or guards against a specific bias? How well is the policy understood? Does the policy need to be updated or modified?
 - *e.g., A group of white male physicians authored the by-laws of the Medical Staff in their hospital 40 years ago. They included a policy for “professional attire” for physicians banning head coverings. Two female physicians who recently obtained privileges at the hospital, are from Muslim families. They have worn a hijab to cover their hair since they were children. The hospital must consider if the policy should be updated.*

Impossible to Avoid Bias?

- Was it possible to recognize and guard against bias, or not discriminate?
e.g., Did a bias exist because of a shared past experience or personal relationship?
- What should the worker do when biases are identified?
 - *e.g., A Nurse Manager has served on the hospital’s Reliability Management Team for the past year and she has been asked to facilitate a Review on a case involving wrong medication administered to a patient. The nurse who gave the medication is a close friend of hers. Despite her sincere attempts, it would be impossible to avoid bias. The hospital must consider what system should be in place to manage the risk of bias and what team members are expected to do in those situations; i.e., What is the process to determine when a team member must recuse themselves and how it should be managed?*

Human Error? (Implicit Bias)

- Did the worker display bias or discrimination inadvertently? Was the worker aware of the bias identified in the Review *at that time of the incident*? What were the contributors to not seeing or not understanding the risk of bias?
 - *e.g., A female ED physician walks into a room to evaluate a new patient. Before she can introduce herself, the patient immediately addressed her as “Nurse.” The patient’s failure to recognize her as a physician was inadvertent and not an attempt to detract from her role or efforts to provide care. It’s likely that most people who make this type of error will be remorseful or embarrassed about what they said (they may even ask for forgiveness). Like any human error, we should look for the contributors that made this error more likely to occur.*

Justifiable Choice of a Biased Action?

- Was a choice to discriminately treat an individual differently justifiable in the eyes of the organization? i.e., Does the organization believe the individual chose to treat the patient differently than other patients, to manage a greater or more immediate risk?
 - *e.g., A young female patient believes she was discriminated upon because the doctor in the clinic did a screening test on her for a sexually transmitted infectious disease (she was asymptomatic), but the same doctor did not order one on her new boyfriend. The doctor responded by saying that he followed the recommendations of the U.S. Preventive Services Task Force and the CDC because there is evidence that women 25 y.o. or older are at increased risk of having an STD, but there is insufficient evidence to support*

Analyzing Biases Using the Sequence of Reliability



screening of men who are at low risk of infection. The hospital must determine if the physician was justified in discriminating treatment of the woman differently from the man.

Choice to Act with Bias? (Explicit Bias)

- Did an individual choose to discriminate against an individual from a different culture?
i.e., Overt Discrimination?
- What motivated the worker's choice to treat the customer differently than how other customers are treated? How do co-workers in that unit view the choice made by the individual?
- Did the worker mistakenly believe they were justified, or did they not see the risk in treating the customer differently?
 - *e.g., A nurse starts working on a different floor in the hospital. One day her co-workers decided to order takeout food from a Chinese restaurant for lunch. After calling in the order, the person who phoned in the order mocked the foreign accent of the restaurant person who received the order and everyone laughed. The nurse, new to the floor and desiring to fit in with her new colleagues, does a similar impersonation of someone with a foreign accent. It may be the new nurse mistakenly believed she was justified because others were doing it (and/or the Manager didn't seem to mind). This meets the definition of an **At-Risk choice**. Like other At-Risk choices, this reflects a more systemic issue where others in the workgroup are likely making the same or similar choices, and not simply a risk from the behavior of one individual. Therefore, not only should the individual be coached on the risk of her actions, but the risk (and consequences for continuing that behavior) should be made clear to the entire workgroup.*
- Did the worker consciously disregard the risk of discriminatory treatment of a customer from a particular culture?
 - *e.g., A hospital prides itself in having a "progressive" culture. One day, the executive leader at the hospital refuses to promote a deserving manager while making a comment that "_____ people do not make good leaders" (insert any cultural or demographic group in the blank). This statement would be likely recognized by most as consciously disregarding a significant and unjustifiable risk of discrimination that others in the same or similar role would not. In other words, this would likely be seen as a **Reckless choice**. That leader is the risk and should face disciplinary action. Depending on applicable laws, the reckless choice may also represent a higher culpable act and should be further assessed:*
 - Did the worker treat the customer differently knowing that harm (substandard treatment of the manager in this case) was practically certain to occur?
 - Was it the provider's purpose to cause harm?



Appendix A – Bias Checklist



Bias Checklist

1. Seeing and Understanding the Risk (of Biases)

Biases in Team Analyzing the Risk Event (*Assessing Ourselves*)

- **Fact-Gathering**
 - Complete fact-gathering? Countervailing evidence considered?
 - All team members comfortable sharing perspectives? Dissenting opinions explored?
- **Sequence of Reliability**
 - Reliability Response Guide utilized? Behavior analyzed in context?
- **System Biases**
 - Marginalized populations involved? (*See Appendix B*)
 - Organization's perception? e.g., Institutional Racism/Discrimination
 - Community/External perception? e.g., Structural Racism/Discrimination
- **Personal Biases**
 - Roles/Responsibilities of team members?
 - Influenced by outcome, previous events, relationships, or other experience?
 - Attitudes/Beliefs/Perception of unfamiliar or marginalized populations?

2. System Reliability (Managing Structural/Institutional Biases)

- **Effective/Resilient for all customers? (in existing system or new proposals)**
 - Customers with additional challenges navigating the organization's systems?
 - System differences for different groups of customers or staff? Why or why not?
 - Appropriate System Metrics for marginalized populations?

3. Human Performance Factors (Contributors to Personal Biases)

- **KSAPs – Potential Biases during assessment of KSAPs**
 - KSAP deficiencies related to a specific group of customers?
 - KSAP deficiencies related to awareness of bias and discrimination?
- **System Influences**
 - Additional challenges for a specific group of customers/staff (e.g., discriminatory policies)?
 - Amount of assistance from System/sub-systems for a specific group of customers/staff?



Bias Checklist (page 2)

- **Personal Influences**

- Culture/Demographic group of the individual and/or their experiences?
- Status of customer/staff in the organization? or in the community?
- Personal Biases (implicit or explicit)
- Personal relationship or experience with the people involved?
- Potential benefits or loss from results of risk analysis to any team members?

- **Cultural Influences**

- Diversity of the work force? of the community?
- Attitudes/Beliefs/Perception within workplace culture? e.g., Racism
- Hierarchy/Power Gradient in the work unit?

4. Human Behavior (Related to Biases)

- Clear understanding of discriminatory actions or words?
- Possible to not be biased? e.g., personal relationship
- Inadvertent Discrimination? (**Implicit Bias**)
- Choice to Discriminate? (**Explicit Bias**)
- Justifiably biased? e.g., discriminatory treatment needed to manage a risk

Definition: Counterfactual Statements

A Counterfactual Statement is one which specific detail(s) of a situation being analyzed are altered to lessen the likelihood of a particular bias.

If answers to any of the questions above suggest a potential for bias, have we tested our assessment using a Counterfactual Statement?



Appendix B – Examples of Marginalized Groups

Marginalized Groups

The term **Marginalized Groups** in this document refers to people who experience discrimination in the form of exclusion, decreased access, or more difficulty receiving services within institutions or the community.

Examples of groups of people who tend to be marginalized in the general population include, but are not limited to the following traits or contributing factors:

- Race and Ethnicity
 - American Indian/Alaska Native
 - Asian
 - Black or African American
 - Native Hawaiian/Other Pacific Islander
 - Hispanic/Latino origin
- Gender
 - Women
 - LGBTQIA+ Identification
- Age – Elderly
- Religious and/or Cultural Backgrounds
- Adverse Social Determinants of Health
 - (housing, income, transportation, neighborhood, education, etc.)
- Insurance Status (private or public)
- Substance/Alcohol Use Disorder (SUD)
- Mental Health Conditions
- Disability status – apparent versus non apparent
- Non-English Primary Language and Perceived Language Proficiency
- Immigration Status



**Appendix C –
Summary Table of Seeing, Understanding, & Managing Biases**

Appendix C: Summary Table



Bias Type	Description	Signs of Potential Bias	Management Strategy or Questions to Ask
Blind Spot Bias	Tendency to see oneself as less biased, or not see that a bias may be influencing our perception of risk	Jumping to conclusions; Focused on someone's behavior; Insufficient time spent vetting the risk; Not following the Sequence of Reliability	Focus on the risk(s) identified in the event and not whose fault it was. Has thorough fact-gathering been completed? Encourage introspection. Remind everyone to remain curious and question assumptions. Have we followed the Sequence of Reliability, or did we (wrongly) assess behavior first?
Outcome Bias/ Hindsight Bias	Tendency to react to a risk event based on the severity of the outcome; Or (retrospectively) assessing a decision/action based on its results	Strong emotions evoked by a tragic outcome (or little concern if an outcome was not severe); i.e., Over-reaction after a bad outcome, Under-reaction if no harm resulted); Comments such as "I knew that would happen" or "No one got hurt"	Use Counterfactual details by assessing the same decision/action after changing the outcome; i.e., How would we assess an individual's decisions or actions if the outcome was different? Acknowledge the feelings of sadness and allow time for staff to process their feelings after a tragic event but guard against being distracted by the outcome. Remain focused on the <i>risk that led to the outcome</i> .
Fundamental Attribution Bias/ Behavior Bias	Attributing the risk to a fundamental character flaw without considering the situation and context	Assessing behavior first and not trying to understand the drivers or context of their behavior; Comments that an individual was "stupid" or "lazy" (or other character flaw)	Understand the perceptions of risk, look for competing priorities, system influences, and human performance factors <i>before</i> assessing behavior. Have we identified contributors from risk perception, system issues, and human performance factors that drove behavior?
Manager Bias	Tendency to manage risk by policy alone (written for ideal employees and conditions)	Assumption that employees understood expectations because the manager believes they did. Comments that an individual "knew the rule" or "they got the email."	Obtain the peer perspective to align Risk Intelligence and Risk Tolerance. Do others in the same/similar role or unit (a peer) understand the organization's expectations to manage the risk? Address competing priorities.
Employee Bias	Believing they are justified in not following a rule because rule-makers don't understand the job	Workers believe the rule is not important (leading to At-Risk choice); Comments that "nobody follows that rule" or "the rule doesn't make sense"	Increase Risk Intelligence (raise awareness of the risk being managed). Do the employees know the risk being managed by the policy/rule? Explain the Risk Tolerance of the organization (consequences if non-compliance continues).

Appendix C: Summary Table



Bias Type	Description	Signs of Potential Bias	Management Strategy or Questions to Ask
Professional Bias	Viewing an event through the particulars of one's job <i>or</i> , favoring/disfavoring an individual based on the status of their role or position in the organization	Team member is focused only on a particular value related to their own responsibilities or the value/importance of an individual in the organization. Incidents where the individual being assessed has high/low position in the hierarchy of the organization (e.g., Chief of Surgery, Custodian)	Obtain other perspectives of the risk from a diverse group. What is the risk perception of others on the team? Use Counterfactual details by assessing their decision after changing the individual's role or stature. How would we assess the decision/action if the individual had a different role/status in the organization?
Confirmation Bias	Seeking or considering only evidence that supports what is already believed instead of evidence that might disprove the belief	Discussions focused only on one possibility, or assumptions are not questioned; When objective evidence is presented, ones that do not support the prevailing argument are not considered	Be sure the team is vetting details that are counter to the prevailing argument. Have we looked for evidence that might disprove our hypothesis? Explore hints of opposing arguments. Have we spent sufficient time vetting other possibilities when suggested by team members?
Groupthink Bias	Tendency to go along with the opinions of the majority in the group	Individuals with facial or body expressions that suggest skepticism but remain non-verbal, especially if some members dominate the discussion or a power gradient exists	Call on each person for their opinion and encourage them to reveal their thoughts. Have all team members been given an opportunity (and psychological safety) to speak up? Encourage scrutiny of our beliefs and look for differing views by expressing doubts. Have the facilitator or leader play the role of a skeptic. What is the evidence for what we believe to be true?
History Bias/ Likeability Bias	Assessing an individual based on prior experience or managing the individual based on how well/poorly they are liked	(Positive or negative) comments are made about past experience with an individual unrelated to the risk being discussed or if team members have a personal relationship with the system or an individual involved in the event.	Guard against unrelated performance or behavior being introduced. Is the reason being given an actual contributor to the risk, or is it an unrelated correlation? Use Counterfactual details by assessing the risk by replacing an actor with a different individual. Would we assess the decisions/actions the same way if a different employee was involved? Ask team members to recuse themselves from the analysis if possible, when social relationships or strong personal feelings are identified. Do any Team Members have any social relationships or strong personal feelings about an involved individual?

Appendix C: Summary Table



Bias Type	Description	Signs of Potential Bias	Management Strategy or Questions to Ask
Investigator Bias	Assuming the risk being analyzed resulted from the same contributors as a similar risk event that was previously analyzed	Not treating each risk event as unique. Comments such as “we’ve seen this happen before” or “this is just like the last time”	Remain diligent about following the Sequence of Reliability and including the risk perceptions, competing priorities, system influences, human performance factors, and behaviors from the event being analyzed. Consider each risk event individually and remain vigilant in not making assumptions from past events.
Self-Serving Bias	Tendency to take credit for success and blame external factors for failures	Comments about external factors or other people as reasons for an error or adverse outcome. Comments such as “that test is always wrong” or “they don’t do their job.”	Redirect discussion away from who should receive credit or blame. But, realize there is a fine line between an “excuse” and a “contributor” to risk. We must remain curious and focus on the risk being analyzed and looking for <i>contributors</i> to the risk. If an external factor is cited as a contributor, we must analyze and stratify the risk, and determine if system redesign proposals are recommended. Have we followed the Sequence of Reliability?
Normalcy Bias	Tendency to underestimate a system or behavioral risk and minimize warnings	Little interest in understanding or managing an identified risk, or the majority of workers not following a policy. Comments such as “that’s how we’ve always done it” or “that alarm never means anything”	Review the threshold for alerts and consider if any adjustments are needed. How might we increase Risk Intelligence around an issue? Does a risk need to be re-assessed for priority? How has perception of the Risk or the System managing the risk changed over time?
Implicit Bias	Inherent biases against a certain culture or other category of the population we are not aware of (e.g., gender, race, age, religion, ethnic culture, sexual orientation, role, etc.) and systems which disadvantage certain groups	Assumptions made about traits of a person from a different culture or demographic group, or assuming that everyone in the community has the same access or opportunities; e.g., “women drivers”, or “everyone has a computer”; Organizations endeavor to guard against overt biases but implicit biases can be especially difficult to identify.	Use counterfactual statements by substituting individuals involved in a risk event with someone from a different culture or socioeconomic group. How would someone from a different (e.g., minority or disadvantaged) group navigate the system? Raise awareness by inclusion and increased participation of team members from (or have knowledge of) other cultures. Is there a team member from a different culture involved in the discussion? Do we need an SME to help us with a culture we don’t fully understand?

Appendix C: Summary Table



Bias Type	Description	Signs of Potential Bias	Management Strategy or Questions to Ask
Explicit Bias	Conscious belief/attitude against (or favoring) certain cultures or demographic groups	Overt expressions of racism, prejudice, xenophobia, or antagonism toward a specific culture or demographic group; Explicit bias is typically related to an individual but has a risk of spreading their erroneous beliefs or discriminatory attitudes to others.	Raise awareness of the <i>risk</i> of racism or other antagonistic beliefs held by the individual(s) and the importance of preserving equity in the organization by utilizing SMEs (see above) and encouraging inclusion in all teams. The organization's intolerance for overt racism/discrimination must be explained and behavioral expectations must be made clear to the individual and (if necessary) the entire workgroup. Assess behavior utilizing the RRG (e.g., At-Risk, Reckless choices?) and an appropriate response to manage behavior.
Structural Bias	Discrimination and inequities against specific cultures or demographic groups created by structures, laws, policies, and practices established by the government and other public agencies (external to the organization).	Customer/patients may complain of difficulties with access or complying with a provider's requests because of personal challenges in their community (beyond the institution's jurisdiction or authority). Sometimes, the customer may be reluctant to express the difficulties they are having, and the provider might not be aware without asking specifically about them.	Structural Bias is also referred to as "Systemic Bias." However, we should clarify a distinction between Institutional Bias that can have similar negative consequences on marginalized groups from the systems external to the organization. While we wish to address and manage the risks from both Structural and Institutional biases, the organization has limited ability to change external systems. In those cases, the organization can endeavor to advocate for marginalized groups or redesign internal systems to help them overcome structural biases.
Institutional Bias	Discrimination and inequities against specific cultures or demographic groups resulting from structures, policies, and practices within an organization	Increased challenges for specific subset(s) of customers related to access or engaging with the institution have been identified.	The risk of institutional bias can result in finding disparities in the quality, patient safety, customer service, and other organizational values. Teams must remember that these are <i>outcomes</i> and to follow the Sequence of Reliability to seek contributors to the risk (institutional bias), while being mindful of outcome bias.