Licensed Physicians from México Pilot Program

2nd Annual Progress Report

UC DAVIS HEALTH | Center for Reducing Health Disparities

MEDICAL BOARD OF CALIFORNIA EST. 1876

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October 2023

Table of Contents

Introduction 5
Background 5
Table 1. LPMPP Community Health Center Allocations and Cohorts 10
Qualitative Evaluation 13
Introduction and Methods 13
LPMPP 360 Assessment for Staff 14
Introduction and Methods 14
Measure 1: Quality of Care 15
Qualitative Evaluation 15
Results 15
Summary of Findings 15
LPMPP 360 Assessment for Patients 16
Results 16
Summary of Findings 16
Measure 2: Adaptability of Physicians 21
Qualitative Evaluation 21
Results 21
Summary of Findings 21
LPMPP 360 Assessment for Staff 22
Results 22
Summary of Findings 22
Knowledge Assessment 24
Introduction and Methods 24
Results 25
Summary of Findings 25
Measure 3: Impact on Working and Administrative Environment in Nonprofit Community Health Centers and Impact on Interpersonal Relations with Medical Licensed Counterparts in Health Centers 25
Qualitative Evaluation 25
Results 25
Summary of Findings 26
LPMPP 360 Assessment for Staff 27
Results 27
Summary of Findings 27

Medical Encounter Data for LPMPP Physicians 32
Table 3. LPMPP Encounter Data 32
Measure 4: Response and Approval by Patients 32
(Patient Experience) 32
Qualitative Evaluation 32
Results 32
Summary of Findings 32
LPMPP 360 Assessment for Patients 33
Introduction and Methods 33
Results 33
Summary of Findings 33
Measure 5: Impact on Cultural and Linguistical Services (Culturally and Linguistically Appropriate Services [CLAS]) 33
Qualitative Evaluation 33
Results 33
Summary of Findings 34
Measure 6: Impact on Limited English-Speaking Patient Encounters 34
Qualitative Evaluation 34
Results 34
Summary of Findings 35
CLAS Organizational Assessment for Patients 35
Introduction and Methods 35
Results 36
Summary of Findings 36
Additional Topical Areas 36
LPMPP 360 Assessment for Staff 36
Results 36
Summary of Findings 37
Abbreviations 42
References 43
Appendices 45
Appendix 1. Demographic Characteristics of Participants 45
Appendix 2. LPMPP 360 Assessment of Staff Responses 47

Introduction

The Licensed Physicians from México Pilot Program (LPMPP) is a project mandated by the Business and Professions Code (BPC) section 853, Assembly Bill 1045. Its primary goal is to improve access to quality care for Latino populations. The LPMPP was created by a group of Latino Community Health Center physicians and leaders in collaboration with a legislative consultant. Through this program, licensed physicians from México are able to participate and provide their expertise in the healthcare industry. This will not only benefit the Latino community but also contribute to the overall improvement of healthcare services available to everyone.

In April 2021, the Medical Board of California (California Department of Consumer Affairs) contracted the Center for Reducing Health Disparities (CRHD) at the University of California, Davis to conduct a three-year evaluation of the Licensed Physicians from Mexico Pilot Program.

As California's Latino community continues to face disparities in access and service utilization, the LPMPP project was conceived to help bridge the gap. The project aims to bring in physicians from Mexico who not only have the necessary medical expertise, but also understand and can relate to the cultural and linguistic nuances primarily of the Latino/a/x underserved community.

Background

Latinos are the largest racial/ethnic minority population in the country and will continue to grow (Office of Minority Health, 2020). Latinos are the largest racial/ethnic group in California at 39.0% of the population and double the national share of Latinos (18% of the U.S. population) (UCLA Latino Policy and Politics Institute, 2023). More than half of young Californians (ages 24 and under) are Latino. The five largest national origin groups in California include Mexicans (83%), Salvadorans (5%), Guatemalans (3%), South Americans (2%), and Puerto Ricans (1%). As the Latino population continues to increase in the U.S. and in California, Latinos also continue to experience some of the highest rates of health inequities, including a lack of access to quality healthcare. Moreover, Latinos experience high rates of chronic illnesses such as diabetes, hypertension, and elevated rates of poorly managed chronic disease (Fernandez et al., 2011). Proper management of chronic conditions are vital to overall health and quality of life, whereas poorly managed chronic illness leads to worsening symptoms, lower quality of life, and high rates of disability and mortality. Poorly managed chronic health conditions are also associated with higher cancer risks and cardiovascular disease, which are leading causes of mortality among the Latino population (Centers for Disease Control and Prevention [CDC], 2023). Further, Latinos experience high rates of primary care service underutilization and reduced access to primary care (Alcalá et al., 2016). Indeed, Latinos are more likely to utilize emergency department services for non-urgent health-related matters (Monica et al., 2020). Additionally, Latina women are less likely to

receive critical preventative care services including mammograms and pap tests, which is correlated with high rates of breast and cervical cancers (Paz and Massey, 2016). Latino children and youth are also affected by racial and ethnic disparities in healthcare. Latino children experience differences in access to quality and safe medical care (Steinberg et al., 2016). Being that a greater percentage of the Latino population is under 18; if health disparities prevail, this can significantly impact population-level health status. Overall, Latino health disparities are demonstrated extensively in research, and despite policy concerns, adverse health outcomes persist for Latinos.

Health disparities prevail and are sustained due to several critical factors, including a lack of access to quality primary and preventative medical care that is culturally and linguistically appropriate. Linguistic or language barriers play a significant role in Latino health status and impact access to quality healthcare and utilization of services. Language barriers directly impact the communication between Spanish-speaking Latinos and healthcare providers. Moreover, physician language concordance, when physicians speak the same language as their patients, is critical to positive health outcomes (Showstack et al., 2019). When there is physician language discordance, or when the physician does not speak the same language as the patient, this leads to negative patient-level impacts from decreased patient-centered care, lack of recommended preventive health services, diminished joint decision-making, and ultimately, difficulties developing and sustaining trust with healthcare providers. Physician discordance is a common phenomenon, especially in areas where the Latino population is increasing (i.e., California) (Garcia et al., 2019).

Latinos are also the largest limited-English proficiency (LEP) population in the United States (Steinberg et al., 2016). Latinos with LEP backgrounds are more likely to experience medication safety issues and less likely to experience adequate medical care in a timely manner. A lack of translation can compromise health literacy making it challenging to obtain, process, and understand basic health information, including the services needed to make appropriate health decisions (Diamond et al., 2019 and CDC, 2022). Additionally, Latinos do not typically have readily available access to quality trained interpreters for health translations during their medical appointments. In many cases, Latinos with LEP have no other choice but to rely on untrained interpreters such as family members and office staff. This lack of communication between Latino consumers and healthcare providers can lead to potentially dangerous errors in communication and can cause an emotional toll on patients and family members. However, even if interpreters are available, a lot can get lost in translation due to cultural differences. Interpreters who do not identify with the same cultural background may be unable to provide culturally appropriate translations. Language translation is not just about directly translating words but understanding the culture to communicate with Latinos appropriately. Moreover, a study found that Latina mothers have distrust in interpreted encounters and would prefer relying on their limited English language skills out of fear of being a burden and facing stigma or discrimination (Steinberg et al., 2016). When comparing reliance on professional interpreters vs. physicians who demonstrate language concordance, physician language concordance is associated with improved quality of care, including improved control of chronic medical conditions, greater health

education received, and improved adherence to medications, compared to reliance on professional interpreters (Fernandez et al., 2011 and Talamantes et al., 2014).

As with language barriers, cultural competence is also a critical factor when addressing the needs of the Latino population. Cultural sensitivity encompasses the awareness that differences exist in not only language and communication but thoughts, actions, customs, attitudes, beliefs, and values. Culture and ethnicity can predetermine core beliefs surrounding what health and illness mean to different communities. For example, there is a difference between western medicine and how Latinos perceive health and communicate their needs regarding health. Further, based on culture, medical symptoms can be recognized and interpreted in various ways. When a medical provider is insensitive to these cultural differences, it can compromise quality healthcare (Betancourt et al., 2003). Culturally competent providers must have the capabilities to function and provide services within the context of the needs of the community they serve. Hence, cultural competence also entails health systems and organizations employing health staff representing the community being served.

Furthermore, studies have shown that the delivery of culturally and linguistically appropriate services (CLAS) plays an essential role in reducing health disparities (Betancourt et al., 2003). Whereas the lack of cultural competence and sensitivity demonstrated by healthcare professionals can exacerbate health disparities (Johnson et al., 2004), bolstering the delivery of CLAS may enable providers to strengthen their relationships with patients, as well as reduce systemic factors that perpetuate health disparities (Nelson, 2002). To address the urgent need to improve culturally and linguistically appropriate services in 2013, the U.S. Department of Health and Human Services Office of Minority Health (OMH) released 15 CLAS Standards to guide health care providing organizations across the country in their efforts to improve the quality of their services. The CLAS standards' ultimate purpose is to advance health equity and eliminate health disparities. There are a total of 15 CLAS standards. The standards are outlined for healthcare organizations across the country and can serve as a guide in their efforts to improve the quality of their services. Each CLAS standard is categorized into one of four categories, including a principal standard, Governance, Leadership & Workforce, Communication & Language Assistance, Engagement, Continuous Improvement, and Accountability. Further, the CLAS standards emphasize the need to provide optimal services to underserved, diverse, and LEP populations.

The contribution of language barriers and lack of cultural competency to health disparities are evident in the literature. However, despite these findings and national emphasis, there are still minimal multilingual services and multilingual physicians in California and the greater U.S. Further, it is imperative to acknowledge California's primary care physician workforce challenges when identifying the gaps in healthcare for Latinos. Regarding primary care, we are experiencing a significant statewide shortage of primary care physicians, a key contributor to poor access to preventive and primary healthcare among Latinos. The primary care physicians' (PCP) workforce is unevenly distributed across the state. Further, some primary care physicians do not accept Medi-Cal patients; the insurance many Latinos rely on to receive care if they have insurance

in the first place (Coffman, 2019). Moreover, primary care physicians are not as racially, ethnically, and linguistically diverse as California's population. Latinos remain an underrepresented group among physicians. As previously noted, Latinos represent 39% of California's population, but only 6% of the state's physicians and 8% of the state's medical school graduates are Latinos (Coffman et al., 2021). Additionally, many physicians are likely to retire within the next decade, particularly in rural areas, where many LEP Latinos reside (Garcia et al., 2019). Although there will be a new wave of physicians to replace those who retire, forecasts suggest these numbers will still be insufficient to fill the unmet need. In Los Angeles, there are only 62-101 PCPs per 100,000 population. In Monterey, there are 50-61 PCPs per 100,000 population. In Tulare, there are 37-49 PCPs per 100,000 population (California Health Care Almanac, 2021). In San Benito, there are 0-36 primary care physicians for every 100,000 population (California Health Care Almanac, 2021). Further, for various regions of California, on average there is double the number of specialists as there are primary care physicians. Additionally, Latino physicians have been decreasing for the last several decades.

Recognizing and understanding the role of language and culture in the healthcare delivery of services is critical to improving Latino health disparities. Latino physicians are more likely than non-Latino physicians to have adequate Spanish language skills for health care communication and may also share a cultural background with LEP Latino patients, potentially further enhancing the healthcare experience. Increasing the number of Latino physicians is critically important to better meet LEP Latino patients' needs.

In April 2021, the Medical Board of California (California Department of Consumer Affairs) contracted the Center for Reducing Health Disparities (CRHD) at the University of California, Davis Health, to conduct a three-year evaluation of the Licensed Physicians from Mexico Pilot Program (LPMPP), mandated by Business and Professions Code (BPC) section 853, Assembly Bill 1045. The impetus behind the LPMPP project was to innovatively address a state physician shortage with qualified doctors from Mexico that also meets the cultural and linguistic needs of California's underserved Latino community. Information Handling Services (IHS) Inc. projected a national physician deficit ranging from 46,100 to 90,400, by 2025. For primary care physicians, the projected shortage ranges between 12,500 to 31,100 (IHS, 2015). Additionally, studies have shown that when a physician fluently speaks a patient's preferred language, it enhances communication and understanding, leading to better patient health outcomes (Diamond et al., 2019).

AB1045 – Licensed Physicians from Mexico Pilot Program

The goal of the evaluation is to make recommendations on whether the Licensed Physicians from Mexico Pilot Program (LPMPP) should be continued, expanded, altered, or terminated. Annual progress reports will be shared with the California State Legislature and other key partners; this is the second annual progress report to be submitted.

The evaluation outcomes for the LPMPP have been defined by the Scope of Work in the contract between CRHD and the Medical Board of California (MBC). These include six (6) broadly defined, multidimensional, outcomes, and one (1) final recommendation for the LPMPP project.

1. Quality of Care
2. Adaptability of Physicians
3. Impact on Working & Administrative Environment in Nonprofit Community Health Centers and Impact on Interpersonal Relations with Medical Licensed Counterparts in Health Centers
4. Response and Approval by Patients (Patient Experience)
5. Impact on Cultural and Linguistical Services (Culturally and Linguistically Appropriate Services [CLAS])
6. Impact on Limited-English-Speaking Patient (LEP) Encounters
7. Recommendation on whether the program should be continued, expanded, altered, or terminated.

LPMPP Evaluation Instruments

The CRHD evaluation team identified several instruments to assess the required outcomes for the LPMPP. These instruments include the *LPMPP 360 Assessment for Staff* based on the Agency for Healthcare Research and Quality's (AHRQ) Medical Office Survey on Patient Safety Culture, as well as the *LPMPP 360 Assessment for Patients* based on AHRQ's Consumer Assessment of Healthcare Providers and Systems Clinician & Group Survey. The *CLAS Assessments for Staff and Patients* were based on the American Medical Association's Communication Climate Assessment Toolkit. The *Knowledge Assessment*, administered to Mexican physicians only, assesses the Mexican physicians' knowledge of the California Medical Standards. A qualitative evaluation is also being conducted to provide context to the quantitative data being collected.

The CRHD evaluation team has utilized select measures from these instruments to meet the evaluation outcome requirements for the LPMPP (e.g., Provider and Staff Communication around Diagnosis Scale of the Medical Office Survey on Patient Safety and Culture as a measure of how "physicians coordinate care among other health professionals" for the Quality-of-Care Outcome). Lastly, various other widely used measures from the scientific literature are included to assess pertinent outcomes. These measures have been adapted accordingly for this project.

LPMPP Evaluation Procedures

The evaluation procedure comprises multiple data collection periods to evaluate the components of each of the LPMPP's six (6) outcomes. The CRHD Evaluation Team established a framework and plan to collect data for this purpose.

Annually, the evaluation team sends staff (LPMPP physicians, clinic leaders, physicians, and administrative staff) two (2) online surveys: 1. CLAS Assessment for Staff and 2. LPMPP 360 Assessment for Staff. At the beginning and end of the project, the LPMPP physicians will also receive an online Knowledge Assessment. Additionally, the evaluation team has employed and will continue to employ a qualitative evaluation approach to capture insights from a sampling of staff participants, physicians, and patients using interviews and focus groups.

To capture patient experiences, either a CRHD staff member or trained outreach worker administers surveys on site, either in-person or over the phone. Data collection for the two (2) patient surveys per year is conducted at staggered time points: 1. CLAS Assessment for Patients and 2. LPMPP 360 Assessment for Patients.

To inform the evaluation of the remaining measures, CRHD will collect data from the participating Community Health Centers. This includes data from the Uniform Data System HEDIS (Health Effectiveness Data and Information Set) measures, peer/chart reviews, and performance evaluations; data that the CHCs routinely collect on an ongoing basis. Qualitative data pertinent to the evaluation of the LPMPP are also collected.

Community Health Centers

The LPMPP project allows for up to 30 licensed physicians from Mexico to practice at Community Health Centers (CHCs) that provide care to primarily underserved Latino communities. The four (4) CHCs are AltaMed Health Services (AltaMed) in Los Angeles and Orange Counties, Altura Centers for Health (Altura) in Tulare County, Clínica de Salud del Valle de Salinas (CSVS) in Monterey County, and San Benito Health Foundation (SBHF) in San Benito County. During the summer of 2022, the CRHD evaluation team learned that AltaMed would join the LPMPP project, replacing Clínicas del Camino Real from Ventura County.

The number of Mexican physicians allocated to the partner CHCs varies. Table 1. depicts the anticipated number of physicians allocated to each CHC.

Table 1. LPMPP Community Health Center Allocations and Cohorts

Community Health Center	#
AltaMed Health Services	7
Altura Centers for Health	7
Clínica de Salud del Valle de Salinas	11
San Benito Health Foundation	5

*LPMPP Physicians to be reassigned

Timelines

Two timelines are included below to demonstrate 1) when the LLPMP physicians arrived at their CHCs to begin working, and 2) when the LPMPP physicians were licensed to begin treating patients.

The first timeline listed below depicts the number of LPMPP physicians that arrived in a given month. The first LPMPP physician arrived in February 2021, and by June 2023, 22 LPMPP physicians arrived at their CHC to begin working. Please note that when the LPMPP physicians started working at the clinic site, they helped with research and responded to COVID-19 efforts. Until licensing and credentialing were completed, they were unable to serve as medical physicians.

LPMPP Doctor Arrival Timeline

The second timeline depicts when the LPMPP physicians received their medical license in a given month. The two LPMPP physicians received their medical license in July 2021. By April 2023, 24 LPMPP physicians had received their license to practice medicine. Please note that once the medical licensing has been issued, LPMPP doctors have to wait for credentialing to be approved before they can begin seeing patients.

LPMPP Doctor Licensing Timeline

Organization of this Report

This second annual progress report includes updates and preliminary analysis from the project evaluation. It also includes results of a qualitative evaluation from a subgroup of leaders from each of the four CHCs. The time period for this initial report includes fiscal year (FY) 2022-2023.

While the final evaluation report will comprehensively cover all seven measures outlined in the contract, this second annual progress report includes information and preliminary results for the first six (6) measures:

1. Quality of Care
2. Adaptability of Physicians
3. Impact on a) Working & Administrative Environment in Nonprofit Community Health Centers and b) Interpersonal Relations with Medical Licensed Counterparts in Health Centers
4. Response and Approval by Patients – Patient Experience
5. Impact on Culturally and Linguistical Services
6. Impact on Limited-English-Speaking Patient (LEP) Encounters.

This report includes aggregated data collected from four participating Community Health Centers: AltaMed, Altura, CSVS, and SBHF. In May 2022, Clínicas del Camino Real ceased to participate as an LPMPP site and was replaced by AltaMed Health Services. As a result of CDCR's departure and AltaMed's incorporation in the project in 2022, some of the findings shared will only reflect three (3) of the CHCs: Altura, CSVS, and SBHF.

Listed below are headers for the instruments used over the past year. The data collected from these instruments inform many of the outcome measures. To avoid redundancy, an 'Introduction and Methods' section is listed below for the instruments being reported on in this report. The 'Introduction and Methods' section includes context for the instrument being used, as well as basic demographic information and timelines for data collection.

Each outcome measure includes a header identifying the name of the instrument, followed by two sub headers: 'Results' and 'Summary of Findings.' The Results section includes aggregated results. The Summary of Findings provides a summary of the results for the respective outcome measures.

If a section is incomplete at the time of submitting the progress report, the reader will see '(forthcoming)' listed for that section. This labeling may be due to the fact that data has not yet been collected, or data has been collected and is in the process of being analyzed. This is due to the fact that data is collected at different points throughout the year and may not be available to include when submitting the annual progress report.

Qualitative Evaluation

The qualitative evaluation plan is comprised of two data collection periods with selected clinic administrators and leadership, physicians from Mexico, clinic physicians, clinic staff, and patients to assess outcomes at the start and completion of the program. Two rounds of interviews will occur at the beginning and towards the end of the project. One round of focus groups will occur towards the end of the project with physicians, staff, and patients. The interviews and focus groups will be captured and analyzed.

Introduction and Methods

In this initial round of qualitative research, an interview guide was created to capture the required outcomes for the LPMPP evaluation. Several pilot interviews were conducted by two expert evaluators to ensure the interview guide solicited relevant information related to outcomes. From November 2022 to April 2023, 13 administrators of four Community Health Centers (CHCs) or Federally Qualified Health Centers participating in LPMPP were interviewed. The four CHCs are listed in Table 2.

Table 2. Representation of Administrators by Community Health Center

Community Health Center	Administrators
Alta Med Health Services	4
Altura Centers for Health	3
Clínica de Salud del Valle de Salinas	4
San Benito Health Foundation	2

During the interviews, which typically lasted between 45-60 minutes, the leaders were asked to share their experiences with the initial implementation of the LMPP and their opinions on the program's various outcomes. Interviewees included administrators serving in various roles including Chief Executive Officers (CEOs), Chief Medical Officers (CMOs), directors, among others.

The qualitative sections of this report highlight prominent, interdependent themes that arose around components of these multidimensional outcomes, but also provide unique insights. Future data collection planned for this project will provide additional insights into the outcomes of interest, enabling a more comprehensive understanding of program effectiveness and areas for improvement.

LPMPP 360 Assessment for Staff

Introduction and Methods

The LPMPP 360 survey is a valuable tool for evaluating patient-provider interactions. From the perspective of the clinical staff, this survey provides a thorough assessment of the Community Health Center's (CHC) work environment and the attitudes and experiences surrounding patient care over the past year. The report generated from the results is critical in identifying areas of excellence and improvement opportunities, providing insight into the overall wellbeing of the CHC's employees. This survey truly offers a comprehensive and insightful evaluation of the CHC's operations and performance.

This confidential assessment was administered online to clinical staff by three of the CHCs[1]. The survey was administered between August and September of 2022 and took approximately 25 to 35 minutes to complete. Project LPMPP enrolled a total of 219 individuals from three different clinics: Clínica de Salud del Valle de Salinas (*CSVC*), Altura Centers for Health (*Altura*), and San Benito Health Foundation (*SBHF*). The majority of the survey participants were women (83.1%), with 73% identifying themselves as Hispanic or Latino, and 92% of them being Mexican or Mexican American. A significant percentage of participants (62%) reported having an education level higher than a high school diploma.

The majority of individuals reported working 31 to 40 hours per week, with just over a quarter of individuals (25.1%) spending between 41 and 50 hours per week at their job One-third of the participants (33.3%) held clinic positions, including therapists, medical assistants, technicians, and nursing aids, making it the most common job position among the participants. Administrative or clerical staff positions were reported by 23.3% of participants.

Among the participants, the majority held various positions such as non-specific clinical and staff roles (57.9%), administrative/clerical staff (23.2%), physicians (7.8%), and physician assistants (4.1%), among others. More than half of the staff had been employed at the clinic for at least three years, while 18% of them having been there for ten years or more. About 60% of participants worked between 1 to 40 hours per week, while 25.1% worked between 41 to 50 hours per week.

[1] The fourth CHC's staff (AltaMed) will take the baseline assessment in the Fall of 2023.

Measure 1: Quality of Care

Qualitative Evaluation

Results

Participating administrators expressed high satisfaction with the quality of care provided by the LPMPP physicians, highlighting the physician's cultural and linguistic alignment as an important factor in enhancing the quality of care.

The administrators anticipate that LPMPP physicians will improve healthcare access and timeliness for both new and existing patients. Although specific indicators of change were not generally reported due to the early stage of program implementation, participating administrators noted high or increasing productivity among LPMPP physicians. This has led to improved accessibility and patient satisfaction. Further, increased accessibility was noted as essential to reduce the need for patients to visit emergency rooms or urgent care facilities, as more patients can be seen in the clinic.

Summary of Findings

Key Preliminary Finding: Most administrators expressed confidence in the quality of care provided by the LPMPP physicians.

> ***"[The community] received them really, really well****, because they see basically the quality and their cultural sensitivity, and* ***everything has been excellent****."*

> *"They have different specialties in different emphasis…****we were able to make some changes…that has improved the quality of care.*** *That's been a blessing for us."*

> *"As we collect some preliminary patient experience and quality data,* ***we are seeing that they're providing great care****."*

Key Preliminary Finding: Administrators highly valued the interpersonal skills that LPMPP physicians bring to their clinical care.

> *"They've been* ***able to catch things****…they seem to be [good]* ***listeners and get to spend a little more time with education...."***

> *"It's more than quality care for me. It's more than the metrics…****All patients deserve to be recognized and accepted for who they are. And I think these providers, that's what they bring****."*

Key Qualitative Preliminary Finding: Most administrators anticipated that LPMPP participation would increase health care accessibility and productivity.

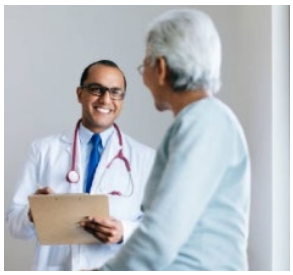
> *"I asked our pediatrician, 'so how's everything going?' he says, 'it's really been helpful for us' because especially during the flu season and during*

COVID there's only so many patients we can see so our patients ***more patients can be seen the same day whereas before we would struggle. So, this alleviates a patient going to the ER or urgent care*** *because we're able to accommodate and see more before they need any other services."*

"Productivity [currently] is very high. They actually see between, 25 and 35 patients a day."

LPMPP 360 Assessment for Patients

Results



To evaluate the quality-of-care outcomes, we consider six domains. These domains include Patient-centered Care, Communication and Diagnosis, Engagement and Treatment, Testing and Referral, Availability of Time, and Timeliness of Care. We also include two sets of questions to gain a better understanding of patient management and overall quality of care provided. It was important to consider all these domains in our evaluation to ensure that patients receive the best possible care.

When survey participants were asked about the outcomes of quality-of-care, they were presented with six response options: Strongly Agree, Agree, Neither Agree nor Disagree, Disagree, Strongly Disagree, and Does Not Apply/Don't Know/Missing. To streamline the responses, we combine Strongly Disagree and Disagree responses in one category, as well as the Strongly Agree and Agree responses in a separate category. The top categories were assumed as *Positive*, the lowest as *Negative*, and the middle option (*Neither Agree* nor *Disagree*) as *Neutral*.

Summary of Findings

Patient-Centered Care Outcomes: To measure the effectiveness of Patient-Centered Care, we determined the percentage of positive responses (PPS) for each question by combining Strongly Agree or Agree responses. For instance, if there are four questions assessing a particular outcome, we calculate the PPS for each question and then average the PPS for all four questions to arrive at a final PPS score. This method allows us to calculate an overall PPS score for patient-centered care.

Our assessment of *Patient-Centered Care* involved four specific questions that covered a range of topics, including clinic protocols, error prevention, and balancing task completion with exceptional care provision.

- A majority of participants (132 out of 219, 60%) agreed or strongly agreed that clinic protocols prevented errors and prioritized care over productivity.

- 78% of participants agreed or strongly agreed that clinic processes are good at preventing mistakes that could affect patients.

- These findings positively reflect a strong commitment from the clinic staff to provide safe and high-quality of care to their patients.

Communication and Diagnosis Outcomes: Our assessment of the effectiveness of communication and diagnosis involved five questions that covered different areas, such as sharing patient-related concerns among staff, managing differences in diagnosis and documentation, and communicating misdiagnosis. We also evaluated whether direct communication existed among all parties involved to seek clarification in processes involving patient's diagnosis.

- 60% of participants agreed or strongly agreed that the with the clinic was effective in in communicating the process of diagnosis, documentation, and requesting clarification when necessary. The range of responses to the five questions for this outcome varied from 48.0% to 69.8%.

- 48.0% of respondents agreed or strongly agreed that providers inform each other if they suspect a missed diagnosis within the clinic or health system.

- These findings highlight the importance of providers to work together and share information to prevent missed diagnoses and ultimately improve patient outcomes.

Engagement and Treatment Outcomes: To measure the success of patient engagement and treatment, we implemented eight specific questions to capture various aspects of the outcome. Each question was rated on a 5-point Likert Scale, with scores ranging from 1 to 5. The overall level of competence was determined by summing the scores of the eight questions, with higher scores indicating greater competence in engagement and treatment. The scores ranged from 8 to 40.

- Based on the survey results, it was found that the median score for engagement and treatment was 28 out of a possible score of 40. This indicates that half of the participants received scores between 25 and 32.

- Our findings suggest that there is potential for enhancing the way patients and their loved ones are asked about their expectations of care. 43% of those surveyed agreed or strongly agreed that this is currently being done in an effective manner.

- It may be beneficial to consider implementing strategies that increase patient and family engagement in the care process and ensure that their expectations are being met.

Testing and Referral Outcomes: To measure the success of testing and referrals, we implemented four specific questions that capture various aspects of this outcome. We used the percentage of positive responses (PPS) for each question, as well as the overall score, to assess the outcome, as previously outlined. The questions covered topics such as the tracking of patient test results from labs, imaging, and other diagnostic procedures, as well as follow-up and communication of test results. We also asked about high-priority referrals and confirmation of appointment attendance.

- The clinic's effectiveness in testing and referrals was highly acknowledged by most participants, with an average strong agreement percentage of 76.3% . The range of responses for the individual four questions was impressive, ranging from 73.8% to 78.8%, with an average score of 76.3%.

- It is of critical importance to prioritize continuous monitoring and improvement to achieve the highest quality of patient care.

Time Availability Outcomes: To evaluate time availability, we posed three distinct questions that addressed various aspects of this outcome. These questions focused on whether the provider has sufficient time to evaluate patients' presenting problems, review relevant information related to patient's presenting problems, and finish their patient notes by the end of their regular workday.

- A significant number of respondents (39.1%) agreed or strongly agree to having sufficient time to adequately conduct clinical activities.

- Shared sentiments of limited available time to carry out clinical duties has potential negative implications, leading to burnout, decreased job satisfaction, and ultimately lower quality patient care. Acquiring additional resources and simplifying workflows might be fruitful ways to address some of the reported challenges.

Timely Care Provided Outcomes: To assess the time availability of providers to provide timely care for their patients, we implemented four distinct questions that addressed various aspects of the outcome. These questions address topics related to whether the provider has sufficient time to provide important reminders to patients, to document chronic care, and follow up with patients that need treatment or monitoring.

- Most respondents agree or strongly agree that they have provided timely care to their patients (79%).

- Almost 73% of respondents agree or strongly agree that providers follow up when they don't receive an expected report from an external provider, which shows their dedication to ensuring that their patients receive the best possible care.

- It is important to continue to monitor progress towards better outcomes and implementing effective workload management strategies to futher improve patient care.

Additional Questions on Quality-of-Care Outcomes: To further assess the quality of care provided, we included some additional questions in our evaluation, and we have. compiled the findings from two separate sets of questions in this report.

Expanded Questions Set 1 – Management of Patients: In the first set of nine questions, respondents were asked about patient access to care, patient identification, access to medical records, charts, and medical equipment, medication, process related to diagnostics and tests. Participants were asked to respond to these questions by selecting one of the following responses: 1) Never, 2) A few times a year, 3) Monthly, 4) A few times a month, 5) Every week, 6) A few times a week, 7) Every day, and 9) Does not Apply or Don't know, or Missing.

For each of the nine questions, we calculated the percent of participants that responded "Never" to the question presented. We then average these responses to come up with an overall average of participants that reported "Never" experiencing challenges being addressed.

- 39% of participants reported that they have never faced any challenges related to patient care management.

- 13.6% of participants reported that they never received a call from a pharmacy seeking clarification or correction on a medication prescription.

- 20.7% reported never experiencing that results from a lab or imaging test were not available when needed.

- A significant number of respondents reported experiencing challenges in managing patients with some frequency, suggesting that the implementation of new actions may improve the management of patient care.

Expanded Questions Set 2 – Quality of Care Provided

In this second set of six questions, respondents were asked about different aspects of quality of care provided, including patient-centeredness, effectiveness, timeliness, efficiency, equitability, and overall, they were asked to rate the systems and clinical processes that medical offices have in place to prevent, identify, and correct problems that have the potential to affect patients. Participants responded to these questions according to the following responses: 1) Poor, 2) Fair, 3) Good, 4) Very good, and 5) Excellent.

For each of the six questions, we calculated the percent of participants that reported Very Good or Excellent.

- Almost half of the respondents (46%) rated their overall clinical and system processes as Excellent or Very Good in terms of patient-centeredness, effectiveness, timeliness, efficiency, and equity.

- Individual scores for specific questions varied quite a bit, ranging from 32.4% to 61.7% for Excellent or Very Good responses.

- Nearly one-third (32.4%) of respondents rated the timeliness of service as Excellent or Very Good, suggesting that there may be room for improvement to minimize waits.

Key Takeaways of Quality-of-Care Outcomes

- Findings from the patient-centered care outcomes suggest that while a large majority of respondents acknowledge that clinic processes are good at preventing mistakes that could affect patients, 10% of them agree or strongly agree that mistakes happen more than they should.

- Communication and diagnosis are an area of opportunity since only 59.6% of respondents agree or strongly agree to strong communication, particularly as it pertains to a suspected missed, wrong, or delayed diagnosis.

- Improvements in engaging patients and families around their expectations of care is essential. Only 43% of respondents agreed or strongly agreed to engaging patients and families in this manner, indicating the need for more patient-centered cared approaches.

- Respondents reported strong practices in tracking patient's results, follow-up appointment, communication of test results, and proving timely care. However, only 40% of them agreed to having sufficient time to conduct their clinical duties, such as having sufficient time to review relevant information related to their patient's presenting problems or having sufficient time during the patient appointments to fully evaluate their presenting problems.

- Overall, 90% of participants rated their medical office's systems and clinical process as good or better when it comes to preventing, identifying, and correcting problems that could affect patients.

- Overall, 88% of participants rated patient-centered care as good or better, particularly in terms of responsiveness to individual patient preference, needs, and values.

Measure 2: Adaptability of Physicians

Qualitative Evaluation

Results

The LPMPP physicians are adapting to the U.S. clinical setting, according to administrators. LPMPP physicians They provide care consistent with established standards and have successfully integrated into most teams, forming positive relationships with their patients. Although English is not their first language, the physicians were proficient enough to communicate effectively.

In some instances, administrators described providing LPMPP physicians with additional supports (for varying lengths of time) in areas such as charting, which may be different from what they are accustomed to, and the electronic medical record (EMR) system. Overall, administrators are reporting LPMPP physicians have shown adaptability and are adjusting well to their roles in the healthcare organizations.

Summary of Findings

Key Preliminary Finding: LPMPP physicians were generally described as adapting well. Some quotes from the staff interviewed are included.

> *"They were like, 'How do you expect me to see so many [patients]?' But when they realize, oh,* ***well they've got help so I could see now why you can see so many patients****…plus also they don't have all the* ***insurance bureaucracy*** *like we do here where you require prior authorizations…then we have MMR, ADR, but they've gotten the hang of it…and they're also working with the doctors and see how they prescribe, but* ***they have no problems integrating and they read and write English fluently****. They get the hang of it."*

> *"We brought in 2 of the candidates earlier on…that was incredibly important because* ***we needed to do mass outreach to the community and mass immunizations against COVID****, and these individuals* ***were versed in doing this****, or handling patients with COVID in Mexico, and working at a larger scale, so* ***they were able to help us ramp up very quickly and were highly impactful with that****."*

> ***"They are just clicking really, really good with everybody****…we haven't heard any complaints, not from the patients, and not from the other doctors, or from the person that works in the clinic. They all like it.* ***They all think that they're great doctors****."*

> *"They're providing not only a care that's consistent with our standards, but they're adapting [to the setting] well. they are being* ***integrated within the team and the patients****."*

Key Preliminary Finding: Administrators described intentionally looking for qualities that would allow the LPMPP physicians to be successful in their transition to the US as well as providing supports to encourage success in the clinical setting.

> *"[W]e actively try to **select people** who we thought might [be a] little bit **more up for the challenge** [and] …need a little bit less hand holding."*

> *"Even though they all speak English fairly well, charting (and in a language that they're not typically used to), and also maybe the style of charting is a little bit different. **We tried to provide them with a slower ramp up than we do our physicians typically**…and then just a little bit more support on the EMR…**So far, our two docs that are here are doing really well**."*

LPMPP 360 Assessment for Staff

Results

When evaluating **adaptability of physician outcomes**, three domains were examined, including physician's 1) Adaptability, 2) Culture, and 3) Self-esteem. Participants responded to several questions with the following options to choose from: Strongly Agree, Agree, Neither Agree nor Disagree, Disagree, and Strongly Disagree. These questions cover a range of topics, such as feeling encouraged to reach out to other physicians on topics related to patient care issues, care ideas, clinical skills, as well as feeling able to earn the trust and appreciation of other fellow physicians and medical directors. Additionally, the questions address getting patient care ideas from talking with other physicians, problem-solving skills, and feeling encouraged to talk to anyone in the clinic setting about any patient care issue.

Summary of Findings

Physicians' Adaptability Outcomes: To determine the overall level of healthcare provider adaptability, we calculated the average scores from each of the seven questions. A higher score indicates greater adaptability of physicians, and scores can range from 1 to 5.

- According to the survey, the median score for adaptability was approximately 4 out of a possible maximum score of 5. This indicates that 50% of the participants had a score above 4, indicating agreement or strong agreement for provider's adaptability.

- 18.8% of respondents feel that they must handle most of their problems on their own, without the help of their fellow physicians.

Physicians' Culture Outcomes: To evaluate the overall culture of physicians in the clinic setting, we utilized seventeen questions on a 5-point Likert scale. An overall score was calculated by summing each of the individual question scores, with higher scores indicating higher cultural competence. The scores range from 17 to 85.

Questions include topics about documentation of adaptations with patients and family, and cultural assessments. Learning from patients and co-workers about cultural needs, language barriers, cultural backgrounds, and spiritual and religious beliefs.

- According to the survey, the median score for cultural competence was approximately 62 out of a possible maximum score of 85. This means that half of the respondents received overall scores that range from 57 to 68.

- 22% of respondents reported that they do not having access to resource books and other materials to help them learn about patients and families from different cultures.

- 14% of participants reported that they do not document cultural assessments and adaptations with patients and families.

Physicians' Self-Esteem Outcomes: To assess physician self-esteem, we posed eight distinct questions that addressed various aspects of the outcome. These questions covered topics such as professional knowledge and skills, how respondents felt about their job performance, how secure they felt about their professional competence, and how patients and other professionals perceived and respected them.

We evaluated the outcome using the percentage of affirmative responses for each question, as well as the overall score, as previously outlined. The questions covered topics such as the tracking of patient test results from labs, imaging, and other diagnostic procedures, as well as follow-up and communication of test results. We also asked about high-priority referrals and confirmation of appointment attendance.

Respondents were asked to respond to these questions using a 5-point Likert scale, with the following response options: Strongly Agree, Agree, Neither Agree nor Disagree, Disagree, and Strongly Disagree. Scores ranged between 1 and 5. To determine the overall level of self-esteem, we calculated average scores from each of the seven questions. A higher score indicates greater self-esteem or physicians, and scores can range from 1 to 5.

- A significant number of survey participants rated their self-esteem highly, with half of them indicating agreement or strong agreement with the question posed.

- 50% of respondents rated their self-esteem between 3.6 and 4.1, with 5 being the highest possible score.

- 13% of respondents reported very often feeling insecure about their professional competence.

Key Takeaways for Adaptability of Physician Outcomes

- One in five respondents (18.8%) reported feeling that they must handle most of their problems on their own, without the help of their fellow physicians.
- 22% of respondents reported not having access to resource books and other materials to help them learn about patients and families from different cultures.
- 14% of participants reported not documenting cultural assessments, and adaptations with patients and families.
- 13% of respondents reported very often feeling insecure about their professional competence.
- Overall, most respondents reported having the necessary skills to provide optimal care to their patients. Adaptability, cultural awareness, and self-esteem are all critical qualities that can make a significant difference in patient outcomes.

Knowledge Assessment

Introduction and Methods

The purpose of this section is to present the findings of the 2022 Knowledge Assessment. This assessment was conducted among 22 physicians participating in the Licensed Physicians from Mexico Pilot Program. The Knowledge Assessment is one of the evaluation instruments utilized to assess Mexican physicians' integration into the Community Health Centers.

Methodology

Procedure

The Knowledge Assessment is meant to assess LPMPP physician's knowledge of the California medical standards. The Knowledge Assessment was conducted using a structured questionnaire developed based on the 6-month orientation course completed by participating physicians to prepare for the program. The questionnaire consisted of multiple choice, multiple response, and true or false questions. There were 65 questions drawn from the orientation modules covering a range of topics specific to the California healthcare system and California medical standards.

The Knowledge Assessment was administered to the first cohort of LPMPP physicians from March through September 2022. The assessment was completed by all 22 (Response Rate = 100%). There was no time limit to complete the assessment.

Instrument

The Knowledge Assessment is primarily based on the 6-month orientation course provided to LPMPP physicians. In compliance with AB1045, LPMPP physicians are required to complete an orientation course successfully, which serves as an introduction to the California healthcare delivery system. The orientation course aims to equip physicians with the essential administrative, ethical, legal, and medical knowledge required to work effectively in California medical clinics. This assessment specifically aims to evaluate the LPMPP physicians' preparedness and readiness to incorporate the California medical standards into their practice. This section of the report provides an overview of the assessment and highlights the key findings.

Results

An overall score was generated for each of the physicians who completed the Knowledge Assessment. Each item on the assessment is worth one point, making the highest possible score 65 points on a point scale. The points are then computed to a percentage. Therefore, a score of 65 points is the equivalent to 100%.

Summary of Findings

The assessment revealed that the LPMPP physicians demonstrated a solid understanding of the California Medical Standards, with an average score of 86.9%. The lowest score was 61.5%, while the highest was 98.5%. Only three physicians scored below 70%, while most physicians scored well above 80%.

Measure 3: Impact on Working and Administrative Environment in Nonprofit Community Health Centers and Impact on Interpersonal Relations with Medical Licensed Counterparts in Health Centers

Qualitative Evaluation

Results

The implementation of the pilot program and LPMPP physicians into the clinic setting presented both challenges and benefits. According to administrators, the initial setup and implementation of the LPMPP program posed a significant challenge for most clinics. There were difficulties in acquiring the required paperwork and certifications for the LPMPP physicians to operate fully as physicians. However, the eventual payoff in the form of increased patients seen per day was considered to outweigh the challenges of initial implementation.

Additionally, the participating community health centers noted a generally beneficial impact on the working and administrative environment with the introduction of the

LPMPP physicians. According to some administrators, the bilingual and bicultural backgrounds of LPMPP physicians helped them establish faster and better rapport with Spanish-speaking patients, leading to a generally positive impact on patient care. However, a few administrators expressed concerns that existing physicians may feel undervalued due to the cultural and linguistic fit of the LPMPP physicians with the patient population or feel displaced by the influx of LPMPP physicians. A couple of administrators described taking steps to ensure that existing physicians were comfortable with the program by helping them understand the purpose and duration of the program.

Summary of Findings

Key Preliminary Finding: Administrators identified challenges to implementation but saw value and return on investment even in this early stage.

> "*Financially **it's expensive** because we pay for all of their immigration fees and we also have to start paying them their doctor salary wages and there's no revenue because they can't see patients, but **I'm sure it'll even out at the end of the day** once it all gets taken care of and **this is a provider we don't have and have been struggling to fill [the positions]**."*

Key Preliminary Finding: Nearly all administrators agreed the LPMPP program is worth the effort invested, although as one interviewee said, "*it definitely took a significant amount of time*." However, they described program implementation and onboarding as becoming smoother over time.

> *"You know, **it's a learning curve**…I mean I've seen the same challenges as I've seen with any other provider that we brought on board."*

Key Preliminary Finding: Most of the administrators reported that the LPMPP physicians were a good fit and that the relationships between clinic staff, US-based physicians, and LPMPP physicians were going well. However, a few administrators expressed concerns that the transition could be stressful for existing physicians, particularly due to the need for shadowing and potential feelings of being undervalued because of the demand for Spanish-speaking providers.

> *"You can't put so many physicians, so many foreign train physicians in one area so that **they're displacing native population [existing providers] or change your practice culture just because of the sheer number or proportions**."*

> *"They're using the AB1045 as the ideal clinician at this point…the communication with the patient is more smoothly with these clinicians.…**The staff are seeing the value of these clinicians…we're looking at in general that this is how the clinicians should function**."*

*"Everybody's been very, very **happy and accepting and welcoming too of the new providers**."*

LPMPP 360 Assessment for Staff

Results

We evaluate the (a) Impact on Working and Administrative Environment in Nonprofit Community Health Centers and (b) Impact on Interpersonal Relations with Licensed Medical Staff. To evaluate the impact and the effects of program physicians on health center leadership, colleagues, staff, and patients, as well as workplace stress and adherence to organizational policies and procedures, nine domains were analyzed.

These domains include nine categories for evaluation: 1) Communication of Errors, 2) Communication Openness, 3) Efficiency and Empowerment, 4) Leadership Support, 5) Office Processes, 6) Organization Learning, 7) Staff Training, 8) Teamwork, and 9) Work Pressure and Pace.

Individuals were presented with six response options, Strongly Agree, Agree, Neither Agree nor Disagree, Disagree, Strongly Disagree, and Does Not Apply/Don't Know/Missing, when asked about the impact outcomes.

To streamline the response categories, we combine the *Strongly Disagree* and *Disagree* options, as well as the *Strongly Agree* and *Agree* options. Responses which *Strongly Agree* or *Agree* as viewed as *Positive*, responses which include *Strongly Disagree* or *Disagree* denote the lowest as *Negative*, and responses with either Neither Agree nor Disagree are considered *Neutral*.

To evaluate the effectiveness of physicians in improving patient care and services we utilized the percent positive score (PPS) method as previously described. By calculating the PPS (based on Strongly Agree or Agree responses) for each question and averaging the results overall all questions, we obtain an overall PPS. This helps us to measure the impact of physicians on various aspects of care and services provided to patients.

Summary of Findings

Communication Errors Outcomes: Respondents were asked a series of four questions to identify whether a lack of communication was resulting in errors. These questions covered various aspects related to communication, such as, whether staff members felt that their errors were being used against them, the willingness of providers and staff to discuss issues openly in the clinic setting, the readiness to discuss ways to prevent errors from occurring again, and the level of willingness to report errors. Based on the responses we received, we will be able to identify areas

where communication can be enhanced to minimize errors and improve the quality of care provided to patients.

- 62% of respondents agreed or strongly agreed that they felt confident in discussing and openly sharing clinic problems, mistakes, and identifying ways to resolve the errors taking place in the clinic setting.

- A quarter (24.9%) of respondents feel as though their mistakes are held against them.

- Fostering a culture of education and growth that perceives errors as opportunities for improvement is essential. Creating an environment of respect, fairness, and collaboration among healthcare providers and their patients can have a positive impact on the quality of care provided.

Communication and Openness Outcomes: As part of our evaluation process, we inquired about the staff and providers' perceptions of communication openness within the clinic. We evaluated four different questions that encompassed various topics, such as providers' willingness to consider new ideas to improve office processes, staff's perspective on the challenges of asking questions or voicing disagreements in the clinic setting. Our objective is to identify areas where communication can be improved to enhance staff morale and benefit patient care.

- On average, 60% of respondents agreed or strongly agree to feeling confident about openly discussing and expressing their opinions regarding ideas for improving office processes and potential disagreements.

- 16% of respondents agreed or strongly agreed that they found it challenging to voice disagreement in their clinic.

- 15% of respondents reported feeling fearful of asking questions when something does not seem right.

- These findings present an opportunity to promote a more open and collaborative work environment in the clinic where all team members feel at ease expressing their concerns and opinions. By cultivating a culture of respect and open communication, we can ensure the safety and well-being of both patients and staff.

Efficiency and Empowerment Outcomes: To assess empowerment and efficiency among staff and providers, we evaluated three different questions that spanned various topics, such as clinical settings in which opportunities are given to try out workflow problems and make decisions about them, as well as feeling encouraged to come up with ideas to carry out the work more efficiently in the clinic.

- 67% of respondents felt empowered to actively participate in finding solutions to any workflow problems and improving the efficiency of the clinic.

- 14% of respondents reported not feeling involved in the decision-making process regarding changes to their work processes.

- Involvement of all team members in the decision-making process leads to a more inclusive, safer, and more efficient healthcare delivery system and collaborative work environment that values everyone's input.

Leadership and Support Outcomes: We evaluated the leadership and support in the clinic setting through four questions. Respondents were asked about decision making and priorities being aligned with the patient's best interests and supporting quality of care.

- 40% of respondents agreed or strongly agreed that there is strong leadership and support in the clinic.

- Nearly 1 out 5 respondents (19%) feel that their clinic isn't investing enough resources to improve the quality of care provided to patients.

- A proportion of respondents (17%) prioritize the needs of their clinic over those of their patients.

- 13% of respondents may be overlooking patient care mistakes that happen repeatedly.

- These findings underscore the areas of opportunity to advance the goals of improving patient outcomes and satisfaction. It is important for healthcare staff to be diligent in addressing these challenges to ensure the best possible care for their patients.

Office Processes Outcomes: We evaluate office processes through four different questions that provide insight into whether staff in the clinic follow standardized processes to complete tasks, the overall organization of the clinic, and the procedures to ensure that clinic processes are carried out correctly.

- 69% of respondents agreed or strongly agreed that their clinic follows protocols and is well-organized with effective procedures in place to ensure that work is done correctly.

- 16% of respondents agreed or strongly agreed that their clinic is more disorganized than it should be.

Organizational and Learning Outcomes: We assess clinic organization and learning opportunities through three different questions that provide insight into whether the clinic

makes changes to improve patient care processes, and whether the clinic is willing to adapt and make changes to avoid similar problems from happening again.

- According to most respondents (74%), the clinic is always willing to adapt and improve patient care processes.

Staff Training Outcomes: We evaluate clinic practices about training staff using three different questions. These questions provide information about the clinic practices in training staff when new processes are put in place, making sure that staff receive on-the-job training needed, and whether they are asked to carry out tasks that they have not being trained to do.

- 62% of respondents agreed or strongly agreed that the clinic prioritizes providing the necessary resources for their staff to excel in their roles. This commitment to ongoing education and support is a crucial element in maintaining a high level of productivity and success in any workplace.

- 27% of respondents believe that their clinic's staff are being assigned tasks that they have not been trained to perform.

Teamwork Outcomes: We evaluated clinic teamwork through four questions. Respondents were asked about whether their clinics emphasized teamwork when caring for patients, existing working relationships and respect among staff and providers, and whether additional support is available during very busy clinic hours.

- 76% of respondents believe that there is a positive teamwork environment in the clinic. They also noted that there is a good working relationship and mutual respect between staff and providers.

Work Pressure and Pace Outcomes: We evaluated work pressure and pace in the clinical setting by implementing four questions. The questions were aimed at finding out whether there is sufficient staff to handle the patient load and in staff and how limited staff impacts clinic flow, as well as how rushed staff and providers feel as a result of limited staff available.

- 34% of respondents agreed or strongly agreed that they have sufficient staff to handle clinic load and manage everything effectively.

- Nearly half of respondents (47%) feel overwhelmed by the number of patients they are expected to care for based on the number of available providers.

Key Takeaways for Impact on Working and Administrative Environment Outcomes

- 75% of respondents feel that their errors are not being held against them.
- 84% of respondents agreed or strongly agree that they are able to voice disagreement in their clinic.
- 85% of staff report being able to ask questions when something does not seem right. They also reported being involved in the decision-making process regarding changes to their work processes.
- 74% of respondents believe that their clinic's staff are being assigned tasks that they have been trained to perform.

- 30% of respondents agreed or strongly agreed that they have sufficient staff to handle clinic load and manage everything effectively.
- Nearly half of respondents (47%) feel overwhelmed by the number of patients for which they are expected to care.
- More than half (53%) of respondents do not feel overwhelmed by the number of patients for which they are expected to care.

Key Findings for Impact on Interpersonal Relations Outcomes

- 80% of respondents believe that there is a positive teamwork environment in the clinic. They also noted that there is a good working relationship and mutual respect between staff and providers.
- Nearly 1 out 5 respondents (19%) feel that their clinic isn't investing enough resources to improve the quality of care provided to patients.
- 40% of respondents agreed or strongly agreed that there is strong leadership and support in the clinic.
- 13% of respondents feel that they maybe overlooking patient care mistakes that happen repeatedly.

Medical Encounter Data for LPMPP Physicians

This section of the report includes aggregate encounters by LPMPP physicians. Results are presented overall, by specialty, and include the top diagnoses. All data reported has been gathered from each of the CHCs.

Over 21 months, between August 2021 and May 2023, 21 LPMPP physicians completed 84,758 patient encounters. A majority of the visits fall under the Family Medicine specialty, followed by Pediatrics with 22,822.

Productivity [currently] is very high. They actually see between, 25 and 35 patients a day.

The average number of daily visits is 129 across all four CHCs. The Pediatric specialty has the highest average daily visit with 173, followed by Family Medicine with 138 visits per day.

Table 3. LPMPP Encounter Data

Specialty	Monthly Cumulative Visits	Average Daily Visits
Family Medicine	45,421	138
Internal Medicine	8,098	74
Obstetrics and Gynecology	8,417	96
Pediatrics	22,822	173
Total	**84,758**	**129**

Measure 4: Response and Approval by Patients (Patient Experience)

Qualitative Evaluation

Results

Administrators reported a positive patient experience or anticipated it to be positive based on others' reports. The ability to communicate with patients in their preferred language was identified as the strongest factor contributing to a positive experience. The LPMPP physicians were also reported to be actively engaging with the community beyond their clinical duties. For example, administrators described that they have conducted workshops and seminars, including collaborations with local elementary schools to provide valuable health education.

Summary of Findings

Key Preliminary Finding: The acceptability of new doctors among patients was reported as very positive.

> ***"Nothing but good comments*** *on them."*

*"**They just have that heart that you know**, you can train skill you could train them on the immunization schedule, you cannot train them on having that heart…There's all kinds of things that are happening with our patients when they walk in, and for them to be that ease and lead with a sense of ownership that they have their doctor, that they have their clinic. **That is extremely important**."*

*"**They love seeing the patients and so far, we've learned that the patients love them. They're able to connect to them on a different level** than the providers that are raised and trained here."*

*"Some of our physicians [have] been **conducting workshops for our patients. They've engaged with local elementary schools where they've actually done seminars or workshops for patients about certain health aspects**…That's been very beneficial, especially in the local school districts."*

LPMPP 360 Assessment for Patients

Introduction and Methods

Baseline data collection for this patient instrument began in June 2023 is ongoing through Fall 2023.

Results

(forthcoming)

Summary of Findings

(forthcoming)

Measure 5: Impact on Cultural and Linguistical Services (Culturally and Linguistically Appropriate Services [CLAS])

Qualitative Evaluation

Results

According to most administrators, the presence of the LPMPP physicians has made a positive impact on cultural services. The LPMPP physicians' familiarity with Mexican cultural customs, such as food, celebrations, and birthing practices, has had a positive impact on serving patients and establishing trust and rapport. Additionally, in some

instances, the clinic staff benefited from the cultural alignment through learning new information and/or seeing the LPMPP physicians provide care.

Summary of Findings

Key Preliminary Finding: Administrators report LPMPP providers increase accessibility and trust among patients because of their familiarity with cultural beliefs and customs.

> *"One thing we've really heard is 'the providers are hearing me.* ***They're understanding where I'm coming from.'****…****understands their rituals right and their customs*** *when a woman is pregnant, or when they give birth, explaining that birthing plan here, and making sure that their needs and their wants and desires are appropriately documented, and then passed along to the delivery."*

Key Preliminary Finding: Cultural alignment was not only noted as a need for the patients but also for the clinic team, which proved to be beneficial to the clinic setting.

> ***"They knew the culture; they knew the language, so it was easier for them to really get to the patients****. Initially for us to start learning the slang and what this word means, that's not the meaning that I knew in Spanish.…****it even has helped us to improve our cultural knowledge****..."*

> ***"These physicians bring a lot of value not only to the individual patient, [but] to our clinical teams****. Our teams, many of them, are from the community. For them* ***to see someone who shares their background is important. And then also for the system.*** *We are also very interested in learning more from them. We will give them opportunities to share with our doctors. If* ***they can help our doctors better understand different ways of practicing*** *that are more effective. That'll be a huge win."*

Measure 6: Impact on Limited English-Speaking Patient Encounters

Qualitative Evaluation

Results

The administrators expressed that it was challenging to hire doctors in the past, but the LPMPP physicians were an excellent fit due to their ability to speak Spanish fluently. The presence of Spanish-speaking physicians seems to be resulting in improved access to care for limited-English-speaking and monolingual Spanish-speaking patients who previously faced difficulties in finding providers who could communicate effectively in Spanish.

The administrators pointed out that the linguistic alignment of the LPMPP physicians had improved access to care, fostered better communication, and received positive feedback from the limited-English-speaking and monolingual Spanish-speaking patient community. Some administrators described the positive word-of-mouth as spreading, which could potentially attract new patients.

Summary of Findings

Key Preliminary Finding: All administrators noted the demand for Spanish-speaking doctors from the populations they served. Additionally, all the administrators expressed difficulties hiring and retaining doctors, especially those that speak Spanish.

> ***"We have a lot of monolingual Spanish-speakers as well and so culturally it's just it was just a perfect fit*** *and again it was taking us many years to even hire a doctor. They just don't want to come."*

Key Preliminary Finding: Administrators highlighted the growing acceptance of and enthusiasm for the LPMPP physicians particularly monolingual Spanish-speakers.

> *"I wasn't concerned about the Hispanic or the monolingual Spanish speakers, more about those that are not. That was my concern. Is it gonna drive my other patients away? I hope not, but now they've been* ***very well received*** *and especially the Hispanic monolingual. As soon as they found out I don't know if it's added more patients, new patients, but definitely* ***the word has been spreading*** *and they're really happy with them. Great comments."*

> *"We have a great population of Hispanic-only speaking patients…****they really appreciate having somebody who can speak Spanish directly to them…[not] relying on their sometimes not very efficient English or relying on the kids to translate to them. It's been really great****…they speak Spanish directly to a lot of our patients. It's been great."*

CLAS Organizational Assessment for Patients

Introduction and Methods

For the purposes of evaluating the LPMPP's impact on limited-English-speaking patient encounters, CRHD deployed the *CLAS Organizational Assessment for Patients*. The assessment covers the extent to which health centers participating in the LPMPP have provided effective quality care and services that are responsive to the preferred languages of patients. The assessment also examines whether health centers delivered understandable, and respectful quality care and services that are responsive to diverse cultural health beliefs and practices, health literacy, and other communication needs of patients. In this report, we describe the baseline results of the *CLAS Organizational Assessment for Patients* for the four health centers participating in the LPMPP.

Protocols were followed to protect the confidentiality of the patient respondents.

Methodology

Procedure

As reported in the first annual progress report, baseline data for the CLAS Organizational Assessment for Patients was administered to a convenience sample of patients at the participating health centers from January through May 2022.

A second round of data collection for Altura, CSVS and SBHF began in June 2023 and is ongoing. Baseline data collection for AltaMed will begin in Fall 2023.

Instrument

The CLAS Organizational Assessment for Patients is meant to be an informational needs assessment for health care providing organizations. The CLAS Organizational Assessment for Patients is comprised of 55 items that are pertinent to the National CLAS Standards. Many of the items have been designed to ask about actionable implementation strategies related to the CLAS Standards.

The items ask about the frequency to which health centers engaged in actions that were responsive to the needs of limited-English-speaking patients. Each item on the assessment is scored on a four-point scale, from 0 (Never) to 3 (Always). In general, actions are rated more positively if patients reported a greater frequency on the items. Some items may be reverse scored such that a greater frequency of an item is reflected less favorably for health centers. Patients also had the option of answering "Not Sure" or "Not Applicable" or "Decline to Answer" on survey items.

Results

(forthcoming)

Summary of Findings

(forthcoming)

Additional Topical Areas

LPMPP 360 Assessment for Staff

Results

As part of the ongoing LPMPP program, CRHD proposed a set of surveys to be administered to staff and physicians to evaluate the impact of COVID-19 on physician's practices and their patients, physician's well-being, and joy in work. This will provide valuable insights into how the pandemic has affected healthcare professionals and their ability to provide optimal patient care. It is important to gather this information to ensure

that respondents are supported and have the necessary resources to continue providing high-quality care during these challenging times.

Summary of Findings

COVID-19 Impact and the Future of Healthcare Systems Outcomes: Respondents were asked about challenges that their clinic experienced during the past year during the pandemic.

- Of the thirteen questions that were posed, 98 of the 219 responders (44.7%) reported experiencing the movement of staff from direct patient care roles to testing for COVID-19.
- About 30% of clinics reported switching to primarily telehealth practice, while 28% reported increasing clinic services and reductions in staff.

Impact of COVID-19 on Physician's Practices and Patients: Respondents were asked about the impact that COVID-19 had on physician practices and patients through the implementation of five questions. The participants provided their answers according to the following responses: 1) Never, 2) A few times a year, 3) Monthly, 4) A few times a month, 5) Every week, 6) A few times a week, 7) Every day, and 9) Does not Apply or Don't know, or Missing.

- 80% of respondents reported spikes in COVID-19 cases with some frequency.
- 73% of respondents reported experiencing patient reluctance to seek medical care due to COVID-19 risk with some frequency.
- 67% of healthcare reported concerns about personal risk of contracting COVID-19 with some frequency during the period of evaluation.
- These findings highlight the importance of providing healthcare workers with adequate protection and support during this challenging times. Similarly, as observed across the nation and the world, there was high reluctance from the general community to seeking medical care, particularly during periods in which COVID cases peaked.

Impact of COVID-19 on Physician's Wellbeing: Respondents were asked about the impact the COVID-19 had on physician wellbeing through the implementation of six questions. Respondents responded to these questions according to the following responses: 1) Never, 2) A few times a year, 3) Monthly, 4) A few times a month, 5) Every week, 6) A few times a week, 7) Every day, and 9) Does not Apply or Don't know, or Missing.

- 53% of respondents reported lack of population compliance with COVID-19 distancing and mask-wearing with some frequency; 17% expressed these concerns daily.

- 36% of respondents expressed concerns about lack of awareness among patients of COVID-19 risks, with 12% expressing these concerns a few times a week or every day.

- These findings highlight the importance of educating the public about the dangers of the virus and the measures that can be taken to prevent its spread.

Experienced Meaningfulness of the Work Outcomes: Respondents were asked four questions to evaluate joy in work. They presented their responses according to five options: Strongly Agree, Agree, Neither Agree nor Disagree, Disagree, and Strongly Disagree.

- 90% of respondents agree or strongly agree that the work that they do in the job is meaningful to them.

Summary of General Job Satisfaction Outcomes: Respondents were asked five questions to evaluate their general satisfaction with the work they conduct in the clinic. They presented their responses according to these options: Strongly Agree, Agree, Neither Agree nor Disagree, Disagree, and Strongly Disagree.

- 82% of respondents agree or strongly agree that generally speaking, they are very satisfied with their job.

Physician Wellbeing and Psychological Distress Outcomes: Respondents were asked six questions to evaluate their well-being and psychological distress. They presented their responses according to five options: 1) none of the time, 2) a little of the time, 3) some of the time, 4) most of the time, 5) all of the time.

- 56% of respondents reported feeling nervous, 45% reported feeling restless or fidgety, and 36% reported feeling that everything was an effort, with some frequency of time.

- 11% of respondents reported feeling restless or fidgety most or all of the time, and 9% reported feeling that everything was an effort most or all of the time.

- A significant proportion of respondents are experiencing some negative emotions. It is important to address these feelings and find ways to alleviate them, as they can have a significant impact on their well-being and their ability to perform their job effectively.

Physician Burnout and Depersonalization Outcomes: Respondents were asked three questions to evaluate burnout and depersonalization. They presented their responses according to these options: 1) Never, 2) A few times a year, 3) Monthly, 4) A few times a month, 5) Every week, 6) A few times a week, 7) Every day, and 9) Does not Apply or Don't know, or Missing.

- 96% of respondents reported caring for what happens to patients and 95% reported feeling close personalization with patients.

- The vast majority of healthcare respondents truly care about their patients and feel a close connection with them.

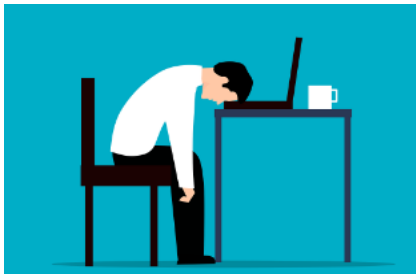
Physician Burnout and Emotional Exhaustion Outcomes: Respondents were asked three questions to evaluate burnout and emotional exhaustion and psychological distress. They presented their responses according to these options: 1) Never, 2) A few times a year, 3) Monthly, 4) A few times a month, 5) Every week, 6) A few times a week, 7) Every day, and 9) Does not Apply or Don't know, or Missing.

- 73% of respondents reported feeling emotionally drained with their work with some frequency, 60% reported feeling fatigued when they get up in the morning and have to face another day in the job with some frequency, and 30% feel that working with people all day is really a strain, with some frequency.

- 6% of respondents reported feeling emotionally drained from their work every day and 3% reported feeling fatigued whey they get up in the morning every day.

- These findings highlight the significance of addressing the mental and physical health needs of healthcare professionals, as burnout can have dire consequences for both providers and patients.

Physician Burnout and Involvement Outcomes: Respondents were asked three questions to evaluate burnout and involvement with patients. They presented their responses according to these options: 1) Never, 2) A few times a year, 3) Monthly, 4) A few times a month, 5) Every week, 6) A few times a week, 7) Every day, and 9) Does not Apply or Don't know, or Missing.



- 55% of respondents reported feeling personally involved with patients' problems with some frequency, and 20% reported feeling this way every day.

- 88% of respondents reported feeling similar to patients in many ways with some frequency, and nearly a third of respondents feel this connection every day.

- These findings highlight a high level of empathy and understanding that the respondents feel for their patients. Such a positive attribute can bring significant benefits in terms of patient care and overall outcomes.

Physician Burnout and Personal Accomplishment Outcomes: Respondents were asked three questions to evaluate burnout and personal accomplishments. They presented their responses according to these options: 1) Never, 2) A few times a year, 3) Monthly, 4) A few times a month, 5) Every week, 6) A few times a week, 7) Every day, and 9) Does not Apply or Don't know, or Missing.

- 86% of respondents reported feeling that they are positively influencing other people's lives through their work, with some frequency, with 54% reported feeling this way every day.

- 81% of respondents reported dealing very effectively with the problems of patients, with some frequency, with 59% reported feeling this way every day.

- A significant proportion of the respondents reported having a positive influence on their patients and being highly effective in resolving patient issues. These findings highlight the commitment of the providers to their work and their dedication to delivering the highest quality of care.

Key Findings for Impact of COVID-19 on Staff and Physicians

- The challenges reported by respondents in this survey closely reflect the concerns that clinical staff and physicians reported across the nation during the COVID-19 pandemic.

- Sharing of staff to meet the emerging demands of COVID-19, concerns about increasing trends of infections in the clinic, compliance with mask wearing, and patient reluctance to seek medical care due to COVID-19 risk were common challenges reported in this survey.

- Despite the uncertainty and challenges posed by the pandemic, respondents reported feeling strongly connected to their work and their patients. They expressed high job satisfaction and felt fulfilled by their ability to positively influence their patient's lives through their work.

- A significant fraction of the respondents reported feeling nervous, restless, or fidgety, as well as feeling that everything was an effort.

- 73% of respondents reported feeling emotionally drained with their work, 60% reported feeling fatigued when they get up in the morning, and 30% felt that working with people all day was a real strain.

- Overall, the COVID-19 pandemic has undeniably had a profound impact on respondents. Despite facing numerous challenges, these dedicated professionals have remained steadfast in their commitment to providing the highest quality care for their patients. Through their hard work, they have forged strong connections with those they serve, finding fulfillment in the relationships they have built. Nevertheless, the pandemic has taken a significant toll on their personal and mental health, given the demanding nature of their work and the associated risks.

Abbreviations

AltaMed	AltaMed Health Services
Altura	Altura Centers for Health
CDCR	Clínicas del Camino Real
CBO	Community Based Organization
CHC	Community Health Center
CLAS	Culturally and Linguistically Appropriate Services
COVID-19	2019 novel coronavirus
CRHD	Center for Reducing Health Disparities at UC Davis
CSVS	Clínicas de Salud del Valle de Salinas
DCA	Department of Consumer Affairs
FQHC	Federally Qualified Health Center
LPMPP	Licensed Physicians from Mexico Pilot Program
MBC	Medical Board of California
SBHF	San Benito Health Foundation

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Appendices

Appendix 1. Demographic Characteristics of Participants

Table 1. Staff Survey Participants (N=219).	N (%)
Age in years	
18 to 24	56 (25.6)
25 to 34	77 (35.2)
35 to 44	42 (19.2)
45 to 54	18 (8.2)
55 to 64	14 (6.4)
65+	3 (1.4)
decline to answer	9 (4.1)
Sex	
Straight or Heterosexual	192 (87.7)
Lesbian or Gay	4 (1.8)
Bisexual	2 (0.9)
Queer	1 (0.5)
Questioning / Not Sure	1 (0.5)
decline to answer	19 (8.7)
Race/ethnicity	
Hispanic or Latino	142 (73.2)
White	43 (22.2)
Asian	5 (2.6)
Middle Eastern or North African	2 (1.0)
Black or African American	1 (0.5)
Native Hawaiian/Pacific Islander	1 (0.5)
Latino*	
Mexican or Mexican American	118 (92.2)
South American	3 (2.3)
Salvadoran	2 (1.6)
Colombian	2 (1.6)
Cuban	1 (0.8)
Central American	1 (0.8)
Guatemalan	1 (0.8)
Education	
Some high school, but did not graduate	1 (0.5)
High school graduate or GED	54 (24.7)
Some college or 2-year degree	102 (46.6)
4-year college graduate	10 (4.5)
More than a 4-year college degree	25 (11.4)
Other	15 (6.8)
Decline to answer	12 (5.5)

*128 responded in Latino-specific fields.

Table 2. Characteristics of staff in a clinical position.	
Position in clinic	N (%)
Administrative/Clerical Staff	51 (23.3)
Physician	17 (7.8)
Management	10 (4.6)
Physician Assistant Types	9 (4.1)
Nurse	5 (2.3)
Other	127 (57.9)
Total time at Clinic	
Less than 6 months	31 (14.2)
6 months to less than 1 year	20 (9.1)
1 year to less than 3 years	47 (21.5)
3 years to less than 5 years	32 (14.6)
5 years to less than 10 years	50 (22.8)
10 years or more	39 (17.8)
Total hours spent at clinic, per week	
1 to 40	131 (59.8)
41 to 50	55 (25.1)
51 to 60	1 (0.5)
Over 60	1 (0.5)
5 to 8	21 (9.6)
9 to 12	4 (1.8)
21 to 30	3 (1.4)
12 to 16	1 (0.5)
17 to 20	2 (0.9)
21 to 30	3 (1.4)

Metrics for Outcome Evaluation

Percent Positive Score (PPS). Outcomes and subcategories within outcomes were summarized according to classifications which were derived by combining the two lowest response categories (*Strongly Disagree* and *Disagree*) and the two highest response categories (*Strongly Agree* and *Agree*). The highest response category is denoted as the *Positive* response. The two lowest categories were considered as the *Negative* response and the midpoint (*Neither Agree* nor *Disagree*) was a *Neutral* response. Once each positive response was calculated for each question, we generated the percent positive overall score by taking an average of the percent positive for each of the questions that corresponded to each outcome. We did not include the negative or neutral response in calculating this positive score.

Cronbach's Alpha Coefficient (ACA) We introduced the Cronbach's alpha coefficient to measure the internal consistency, or reliability, of a set of survey questions. This statistic helps determine the level of agreement between similar questions on a standardized 0 to 1 scale. We use this statistic to help determine whether a collection of questions consistently measures the same characteristic or outcome. Rules of thumb for interpreting this coefficient include a score of 0.7 or greater implicates acceptable internal consistency, with a 0.8 or greater describing good consistency. A coefficient lower than 0.5, indicates unacceptable internal consistency.

Appendix 2. LPMPP 360 Assessment of Staff Responses

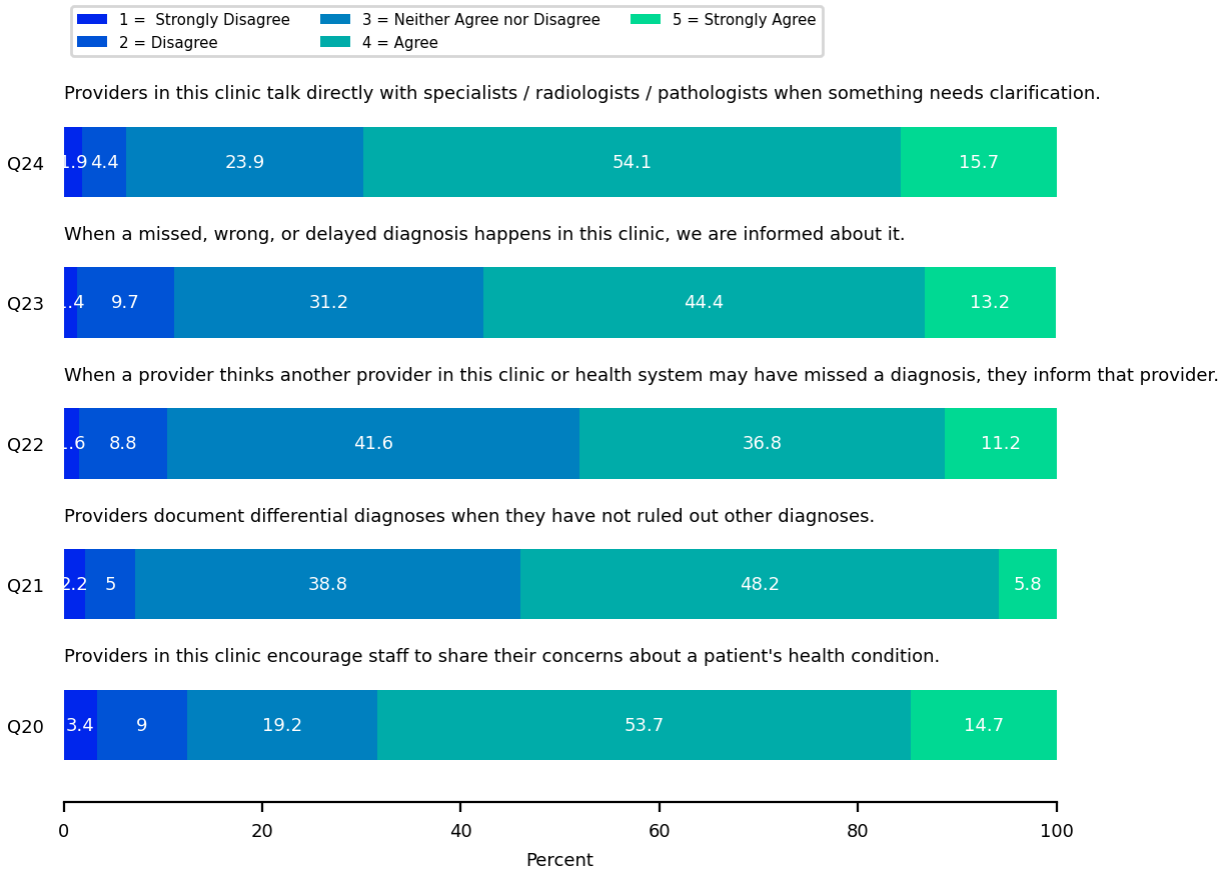
QUALITY OF CARE OUTCOMES

1. COMMUNICATION AND DIAGNOSIS

Metric for Analysis. The *percent positive score* was averaged over items Q20-Q24.

	Q20	Q21	Q22	Q23	Q24	Average
Percent positive score	68.4%	54.0%	48.0%	57.6%	69.8%	59.6%

Figure 1. *Quality of Care Outcomes* with individual responses for communication and diagnosis.



Results: The average percent positive score is 59.6%, meaning that 59.6% of respondents were positive about communication and diagnosis practices in the clinic. An opportunity for improvement corresponds to Q22 (PPS: 48.0%), suggesting a gap for improved communication in the context of missed diagnosis (**Figure 1**). The Cronbach's alpha coefficient for the 5 items is 0.86 (0.83-0.89 CI), suggesting that the items have relatively high internal consistency.

2. PATIENT ENGAGEMENT-TREATMENT

Metric for Analysis. An overall score of cultural competence is obtained by summing the items (8 items, Q77-Q84, with 5-point Likert scale) with higher scores indicating higher cultural competence. The scores can range from 8-40.

Figure 2A. The median cultural competency score is 28 [IQR: 25-32], the minimum score is 8, and the maximum score is 40.

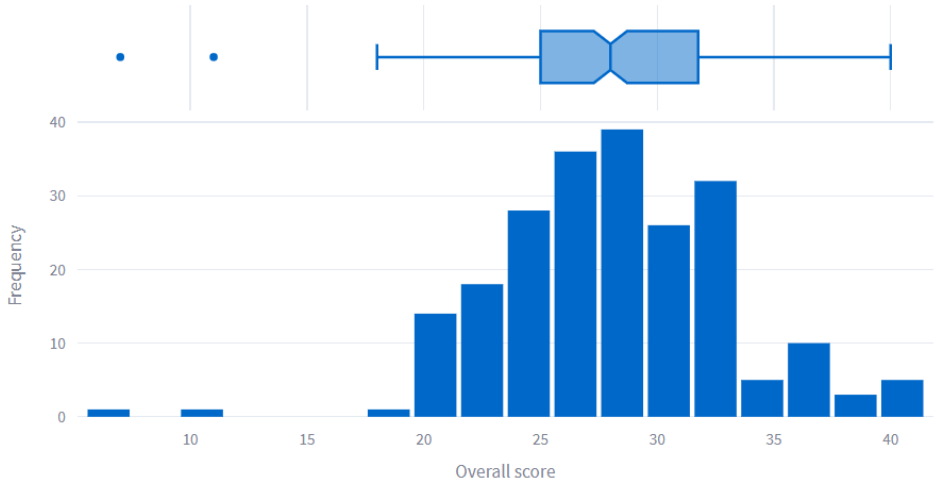
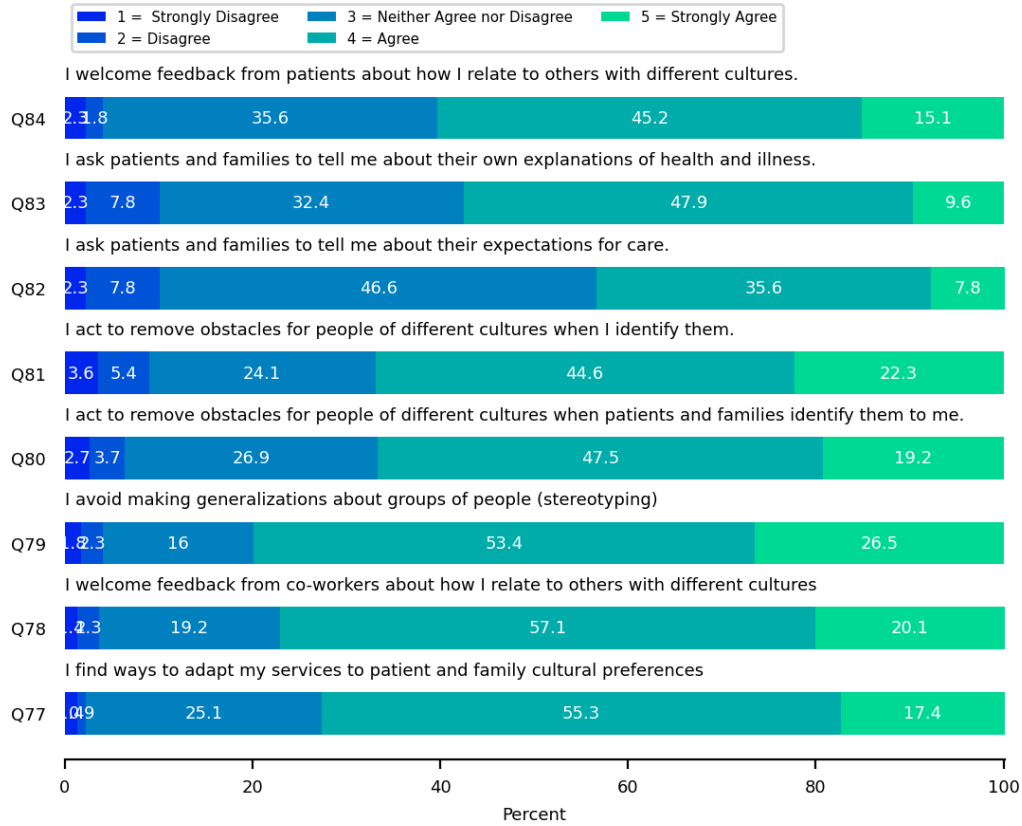


Figure 2B. *Quality of Care Outcomes* with individual responses for patient engagement and treatment.



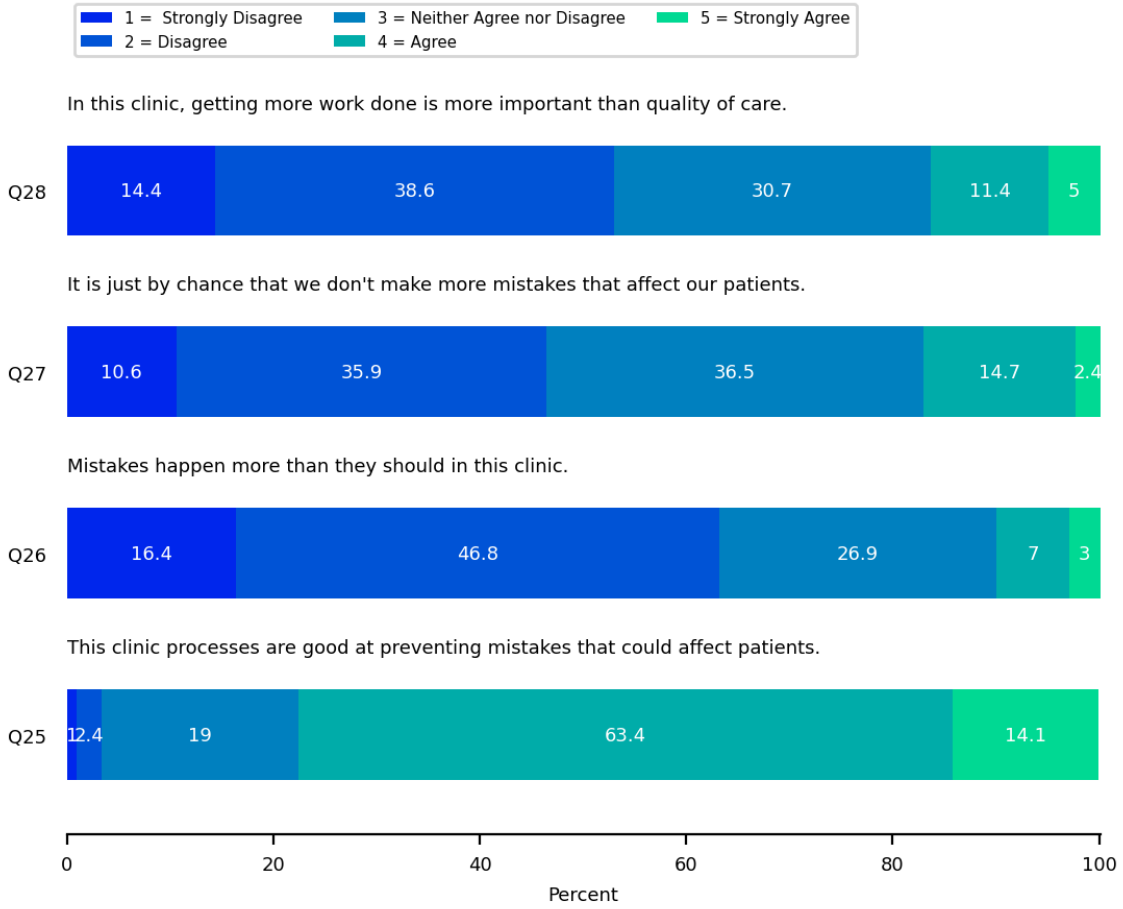
Results: Opportunity includes Q81, for which 9.0% of respondents Strongly Disagree (3.6%) or Disagree (5.4%) to remove obstacles for people of different cultures when they identified them. The alpha coefficient for the 8 items is 0.86 (0.83-0.89 CI), suggesting that the items have relatively high internal consistency.

3. PATIENT-CENTERED CARE PROVIDED

Metric for Analysis. To generate the percent positive score, average the percent positive responses on items Q25 - Q28.

	Q25	Q26	Q27	Q28	Average
Percent positive score	77.6%	63.2%	46.5%	53.0%	60.0%

Figure 3. *Quality of Care Outcomes* with individual responses for patient-centered care provided.



Results: The average percent positive score is 60%, meaning that 60% of respondents answered Strongly Agree or Agree to providing patient-centered care. There are several opportunities for improvement in questions Q26-Q28, as a significant fraction of

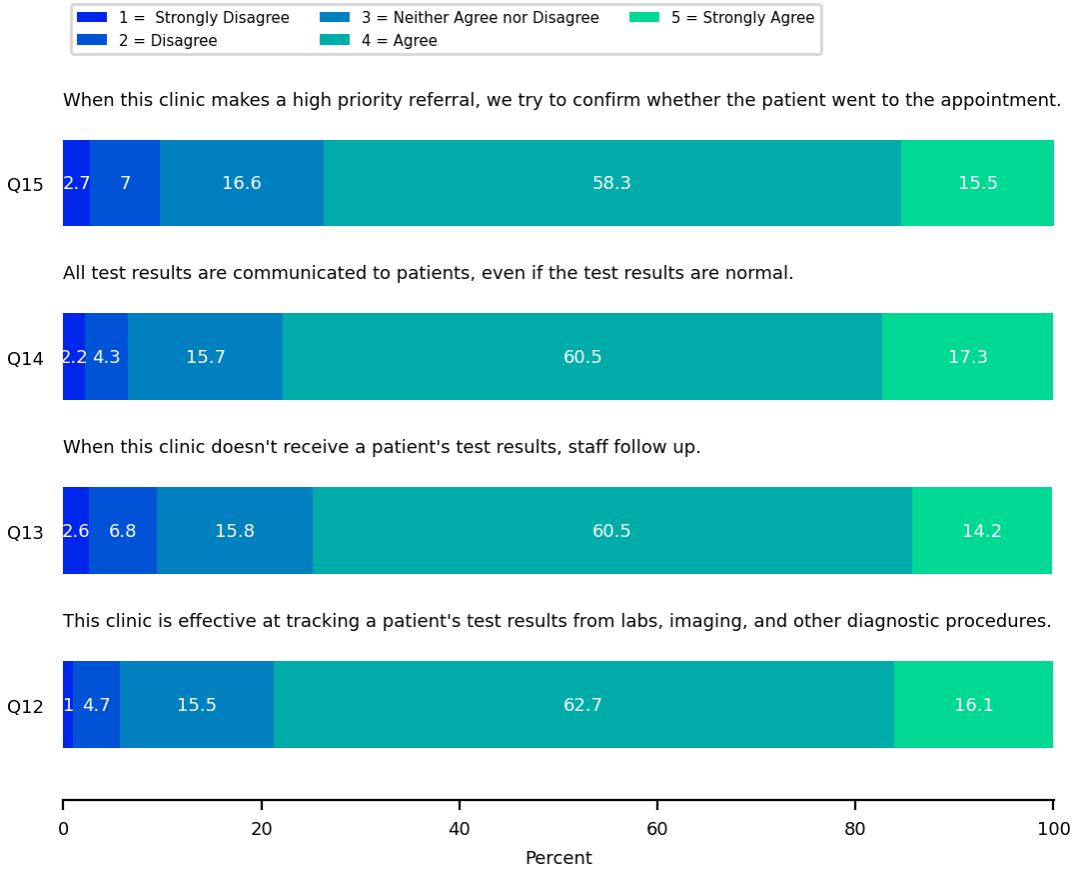
respondents Agree or Strongly Agree that mistakes happen more than they should (10.0%), only by chance that they don't happen more often (16.4%), and over 16.4% believe that getting more work done is more important than the quality of care. The Cronbach's alpha coefficient for the 4 items is 0.39 (0.25-0.52 CI), suggesting that the items have low internal consistency.

4. TESTING REFERRAL

Metric for Analysis. To generate the percent positive score, average the percent positive responses on items Q12 - Q15.

	Q12	Q13	Q14	Q15	Average
Percent positive score	78.8%	74.7%	77.8%	73.8%	76.3%

Figure 4. *Quality of Care Outcomes* with individual responses for testing referrals.



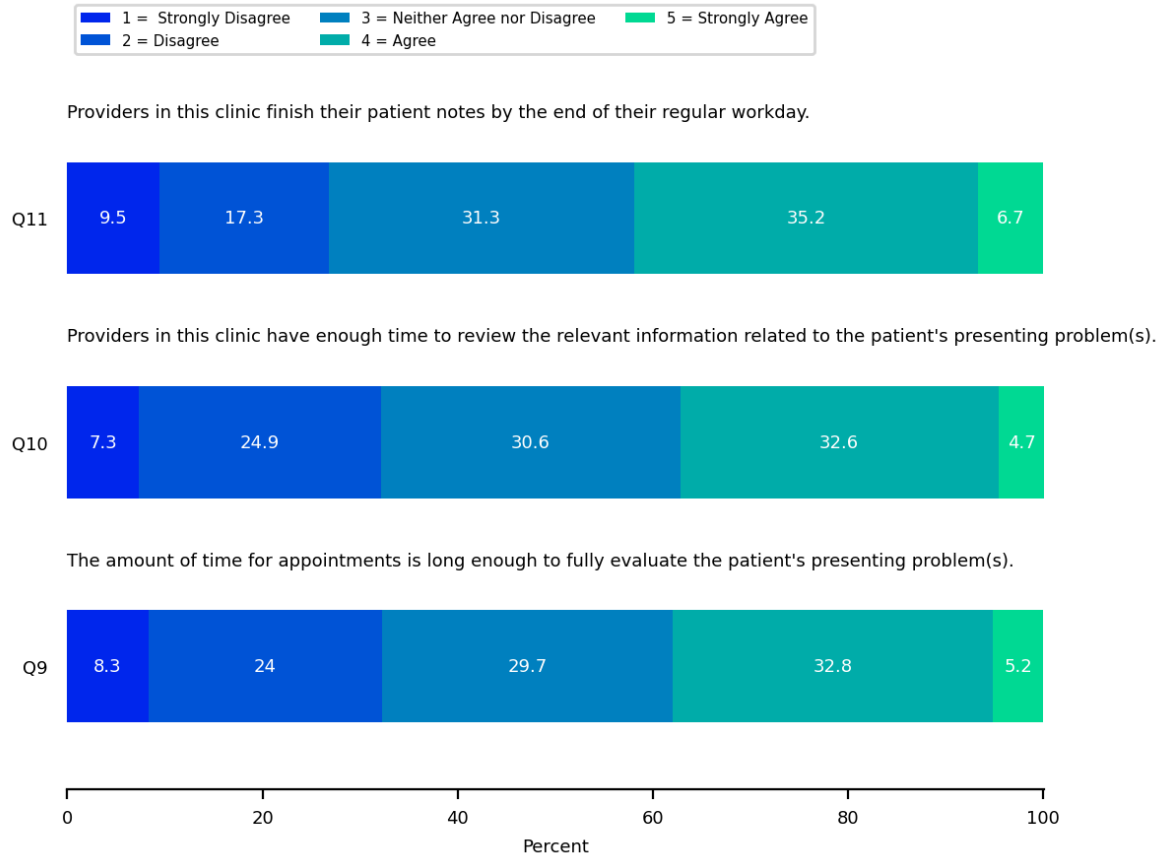
Results. Based on the survey responses, it appears that 76.3% of participants either strongly agreed or agreed with the testing referral practices. The individual question responses were also generally positive. Furthermore, the 4 items in the survey demonstrated high internal consistency with an alpha coefficient of 0.84 (0.802-0.872), suggesting high internal consistency.

5. TIME AVAILABLE TO CONDUCT CLINICAL ACTIVITIES

Metric for Analysis. To generate the percent positive score, average the percent positive responses on items Q9 - Q11.

	Q9	Q10	Q11	Average
Percent positive score	38.0%	37.3%	41.9%	39.1%

Figure 5. *Quality of Care Outcomes* with individual responses for time available to conduct clinic activities.



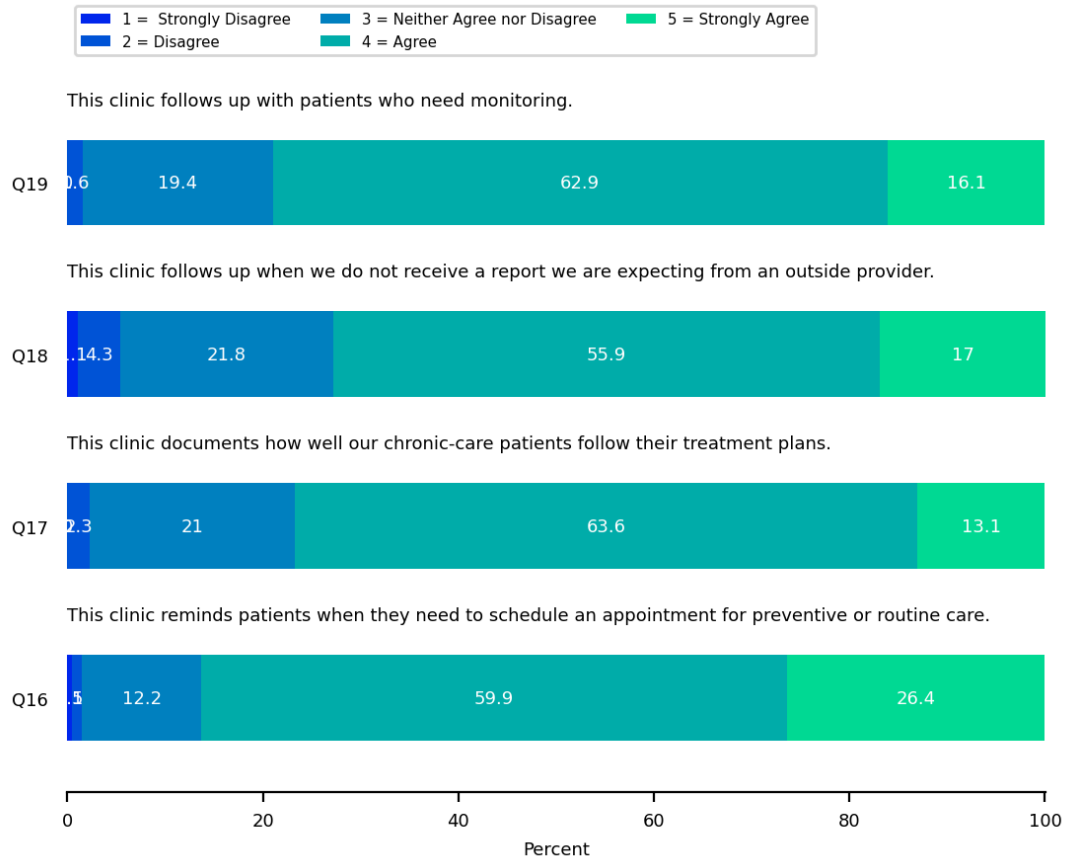
Results: It appears that an average of 39.1% of those surveyed agreed or strongly agreed that they had enough time to complete the necessary clinical activities. This indicates that there is considerable room for improvement, with 38.0% of respondents Agreeing or Strongly Agreeing to having sufficient time to fully evaluate the patient's presenting problems, 37.3% having sufficient time to review a patient's relevant information, and 41.9% having sufficient time to finish their notes by the end of their regular workday. Not surprisingly, the three items in the survey show high internal consistency with an alpha coefficient of 0.79 (0.73-0.83 CI).

6. TIMELY CARE PROVIDED

Metric for Analysis. To generate the percent positive score, average the percent positive responses on items Q16 - Q19.

	Q16	Q17	Q18	Q19	Average
Percent positive score	86.3%	76.7%	72.9%	79.0%	78.7%

Figure 6. *Quality of Care Outcomes* with individual responses for timely care.



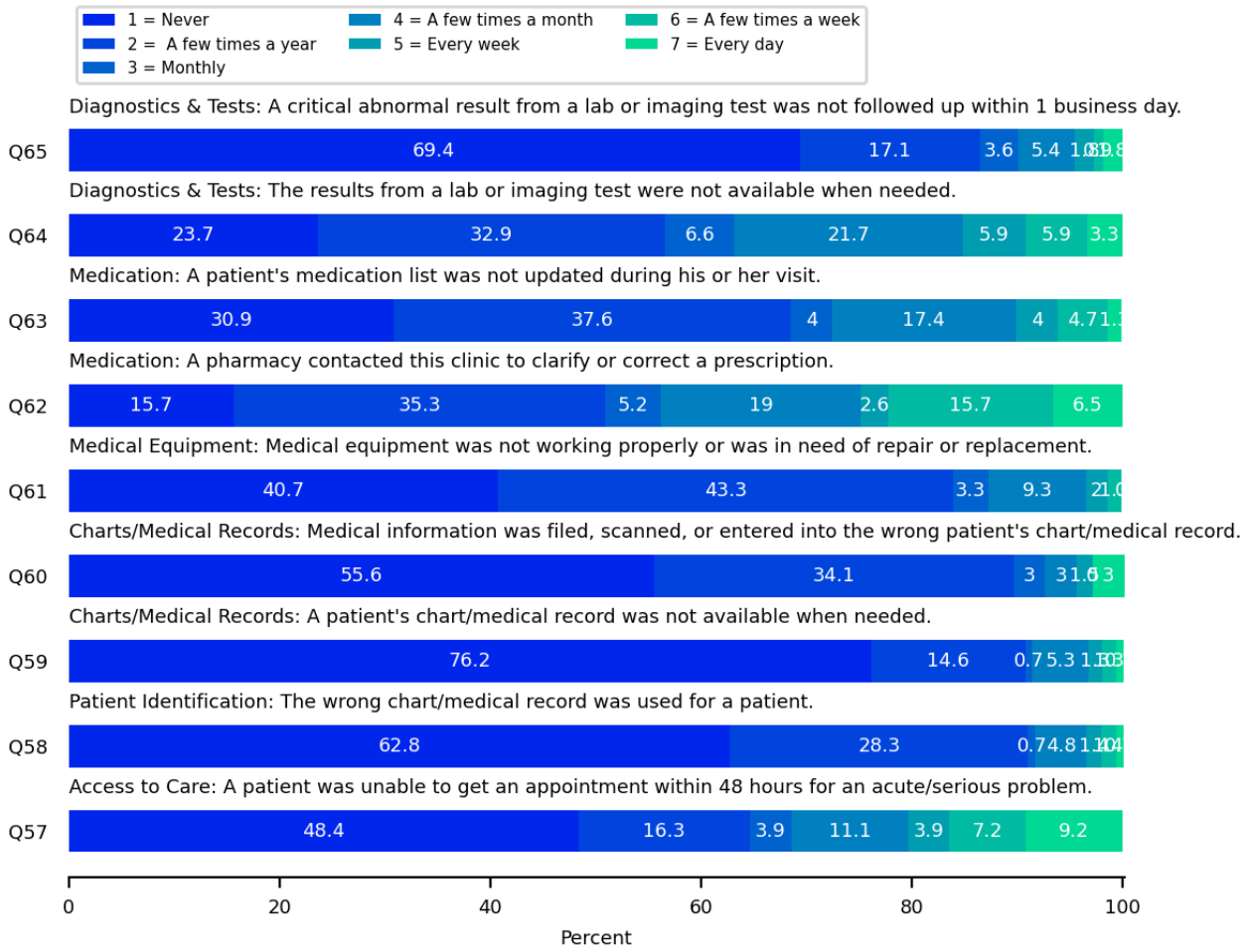
Results: An average of 78.7% of respondents felt that they have a strong system in place to remind patients to attend scheduled appointments and follow-up care and monitoring.

An opportunity for improvement corresponds to question Q18, as 72.9% of respondents Agree or Strongly Agreed that the clinic follows up even despite not receiving a report requested from an outside provider. The four items in the survey show high internal

consistency with an alpha coefficient of 0.8 (0.75-0.84 CI), suggesting that the items have relatively high internal consistency.

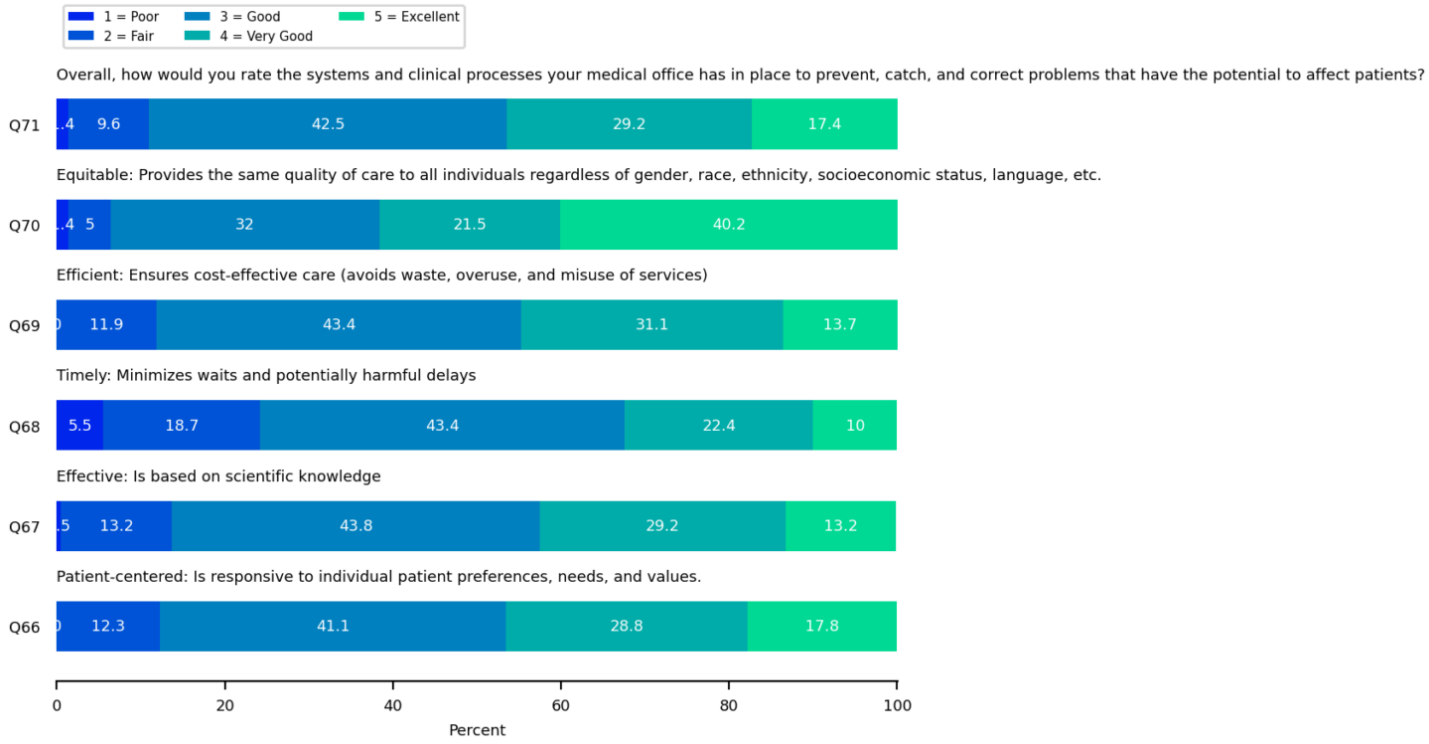
7. ADDITIONAL QUESTIONS PROPOSED BY CRHD

Figure 7A. *Quality of Care Outcomes* with individual responses for additional questions.



Results: Questions Q62 (19%), Q63 (17.4%), and Q64 (21.7%), correspond to categories in which participants reported having the greatest challenge with a frequency of “a few times a month.” For instance, 19% of respondents reported that the results from a lab or imaging test were not available when needed a few times a month. Regarding medication, a pharmacy contacted this clinic to clarify or correct a prescription a few times a month.

Figure 7B. *Quality of Care Outcomes* with individual responses for additional questions.



Results: Opportunities for improvement on these additional questions include the following: 1) Patient-centered: is responsive to individual preferences, needs, and values (Q66), 2) Effective: is based on scientific knowledge (Q67), and 3) Timely: Minimizes waits and potentially harmful delays (Q68), as 12.3%, 13.2%, and 18.7% of respondents, respectively, reported “Fair” for these questions.

IMPACT OUTCOMES

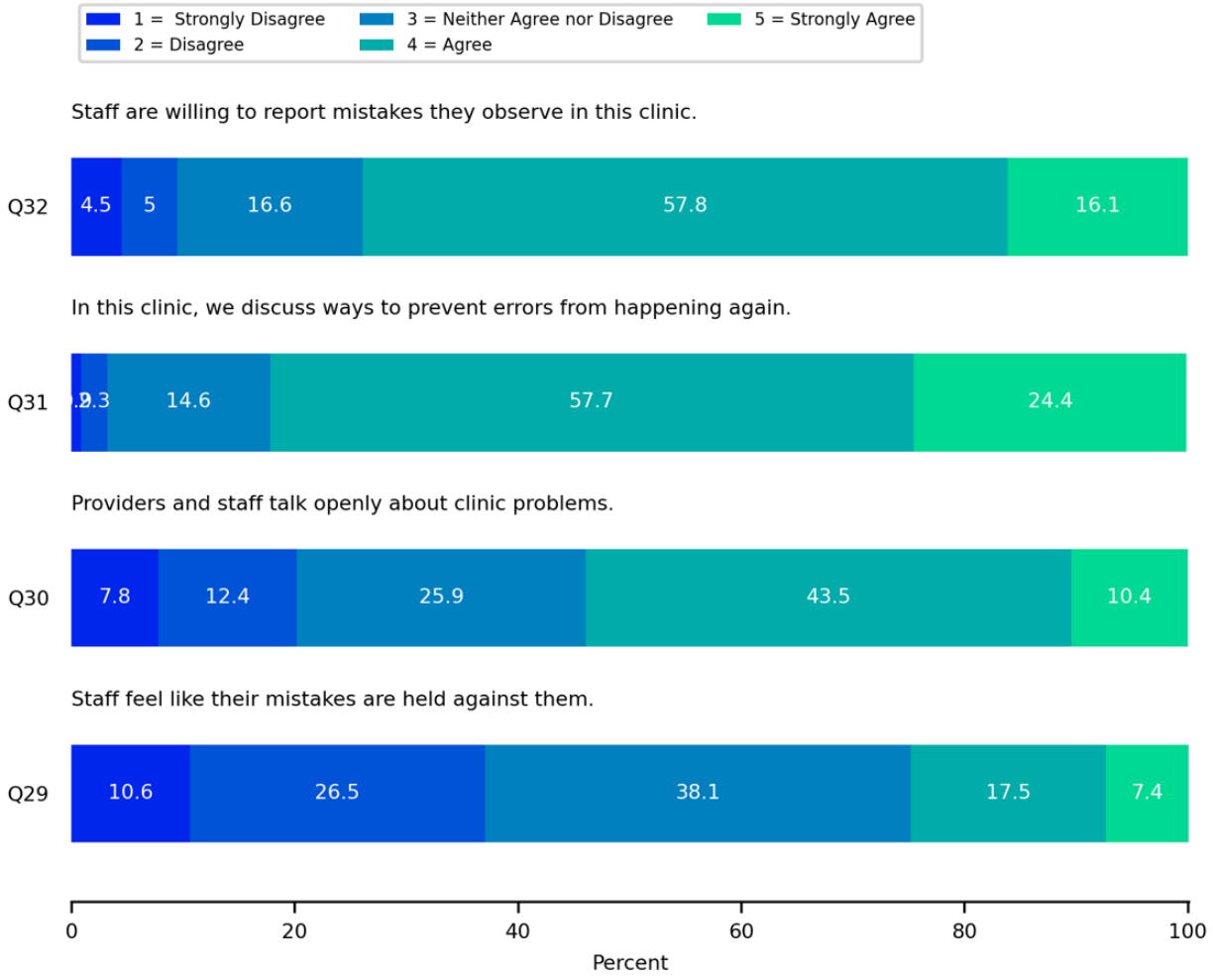
These outcomes correspond to (a) the Impact on the Working and Administrative Environment in Nonprofit Community Health Centers and (b) the Impact on Interpersonal Relations with Licensed Medical Staff.

1. COMMON ERRORS

Metric for Analysis. To generate the percent positive score, average the percent positive responses on items Q29 – Q32.

	Q29	Q30	Q31	Q32	Average
Percent positive score	37.0%	53.9%	82.2%	73.9%	61.7%

Figure 8. *Impact Outcomes* with individual responses for common errors.



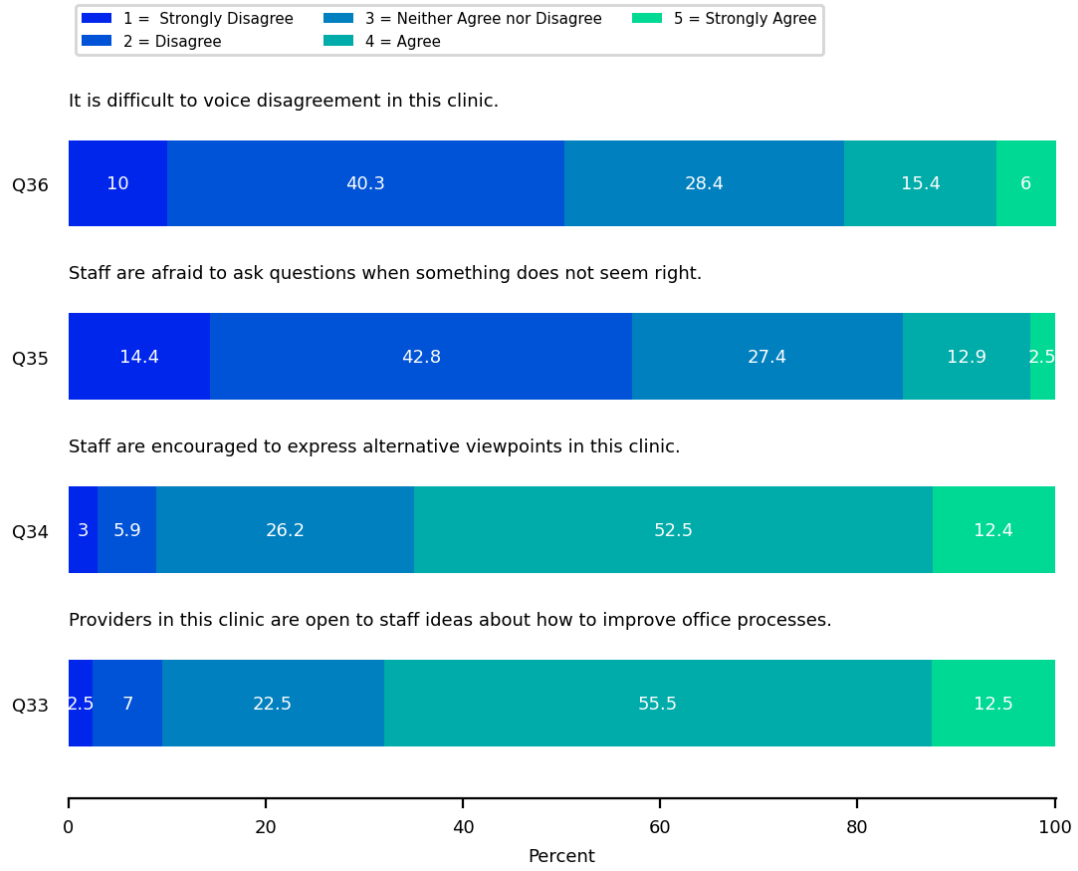
Results: The average percent positive score is 61.7%, meaning that 61.7% of respondents answered Strongly Agree or Agree to feel equipped to handle mistakes in the clinical setting. An area of opportunity corresponds to Q29, as 24.9% of respondents agreed or strongly agreed that mistakes are held against them. The alpha coefficient for the 4 items is 0.37 (0.22-0.50 CI), suggesting that the items have low internal consistency.

2. COMMUNITY OPENNESS

Metric for Analysis. Combine scores as in previous outcomes. To generate the percent positive score, average the percent positive responses on items Q33 – Q36.

	Q33	Q34	Q35	Q36	Average
Percent positive score	68.0%	64.9%	57.2%	50.2%	60.1%

Figure 9. *Impact Outcomes* with individual responses for community openness.



Results: The average percent positive score is 60.1%, meaning that 60.1% of respondents answered Strongly Agree or Agree that there is a community openness

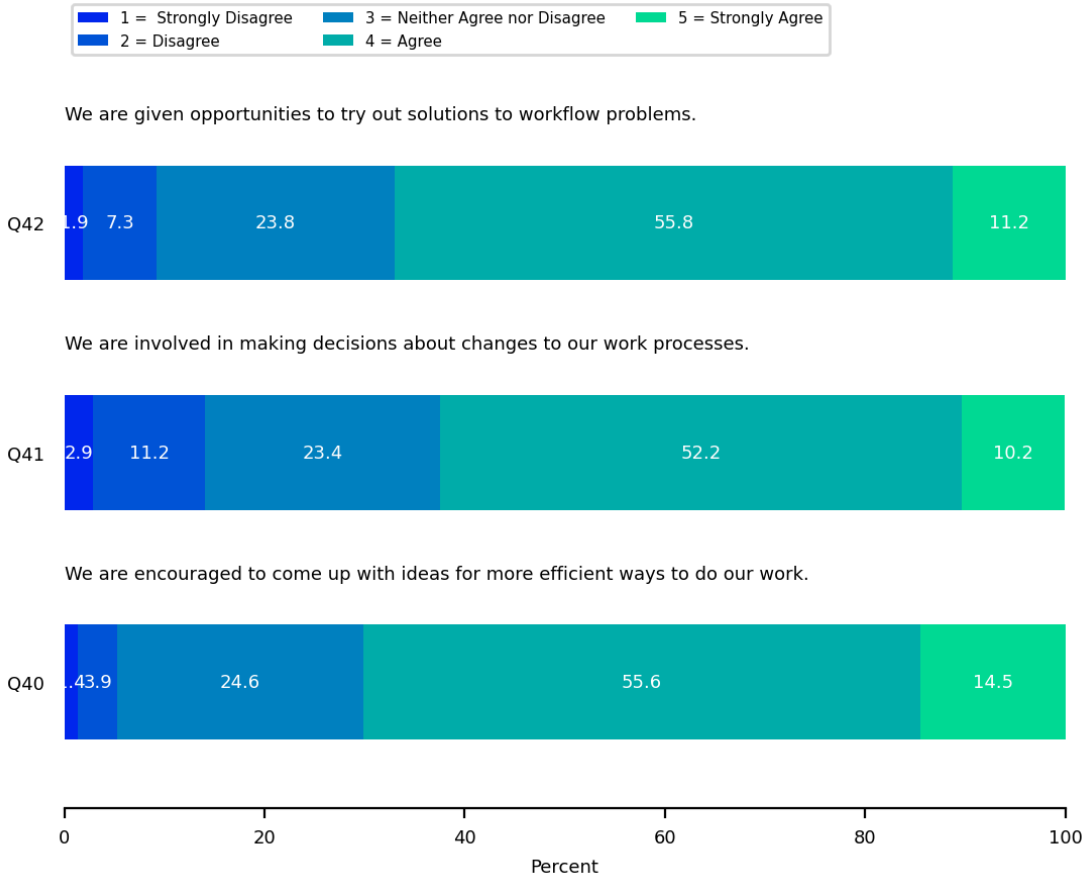
within the clinical setting. There are two opportunities for improvement as staff report feeling afraid to ask questions when something does not feel right (Q35. 15.4% Agree or Strongly Agree), and voicing disagreement (Q36, 21.4% Agree or Strongly Agree). The alpha coefficient for the 4 items is 0.66 (0.58-0.73 CI), suggesting that the items have low internal consistency.

3. EFFICIENCY TO EMPOWER

Metric for Analysis. Combine scores as in previous outcomes. To generate the percent positive score, average the percent positive responses on items Q40 – Q42.

	Q40	Q41	Q42	Average
Percent positive score	70.0%	62.4%	67.0%	66.5%

Figure 10. *Impact Outcomes* with individual responses for efficiency to empower.



Results: According to the results, the average percent positive score is 66.5%, indicating that 66.5% of respondents either strongly agreed or agreed that there is a strong environment for staff empowerment. However, there seems to be room for improvement regarding question Q41, as 14.1% of participants reported not being

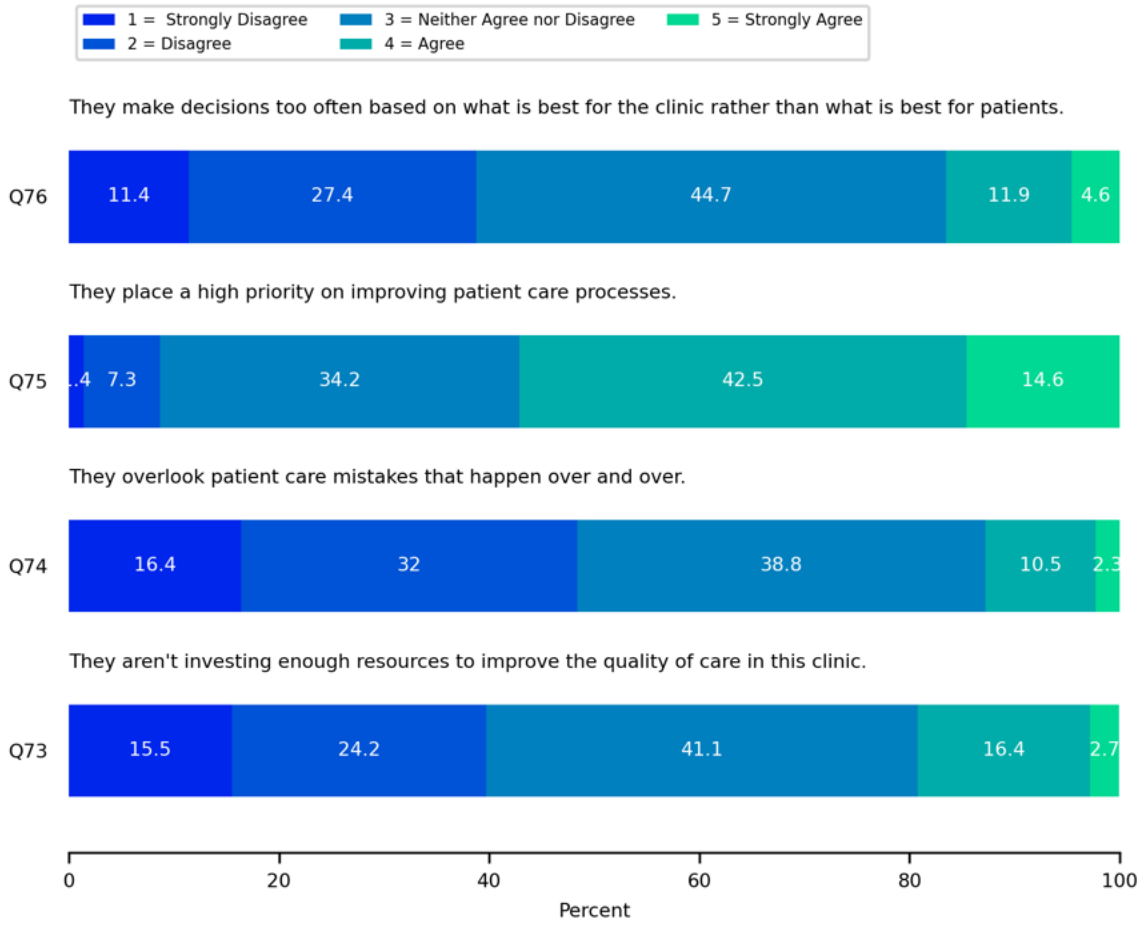
involved in making decisions about changes to the work process. The alpha coefficient for the 3 items is 0.86 (0.82-0.89 CI), suggesting that the items have relatively high internal consistency.

3. LEADERSHIP SUPPORT

Metric for Analysis. Combine scores as in previous outcomes. To generate the percent positive score, average the percent positive responses on items Q73 – Q76.

	Q73	Q74	Q75	Q76	Average
Percent positive score	39.7%	48.4%	57.1%	16.4%	40.4%

Figure 11. *Impact Outcomes* with individual responses for leadership support.



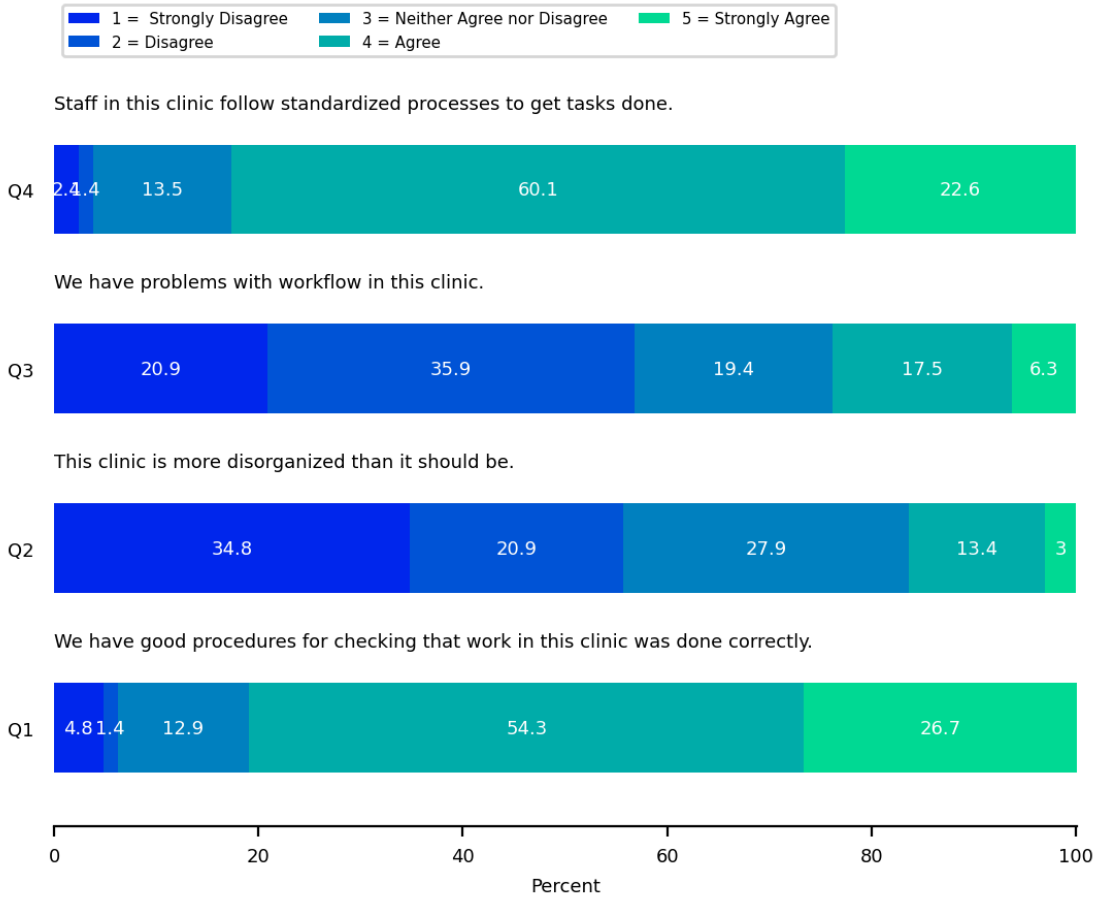
Results: According to the results, the average percent positive score is 40.4%, indicating that 40.4% of respondents either strongly agreed or agreed to insufficient investment in leadership support. It is worth noting that there is a potential for improvement in regard to question Q73, where 19.1% Strongly Agree or Agree that not enough resources are allocated towards enhancing the quality of care in the clinic. The alpha coefficient for the 4 items is -0.23 (-0.517-0.017 CI), suggesting that the items have low internal consistency.

4. OFFICE PROCESSES

Metric for Analysis. Combine scores as in previous outcomes. To generate the percent positive score, average the percent positive responses on items Q1 – Q4.

	Q1	Q2	Q3	Q4	Average
Percent positive score	81.0%	55.7%	56.8%	82.7%	69.0%

Figure 12. *Impact Outcomes* with individual responses for office processes.



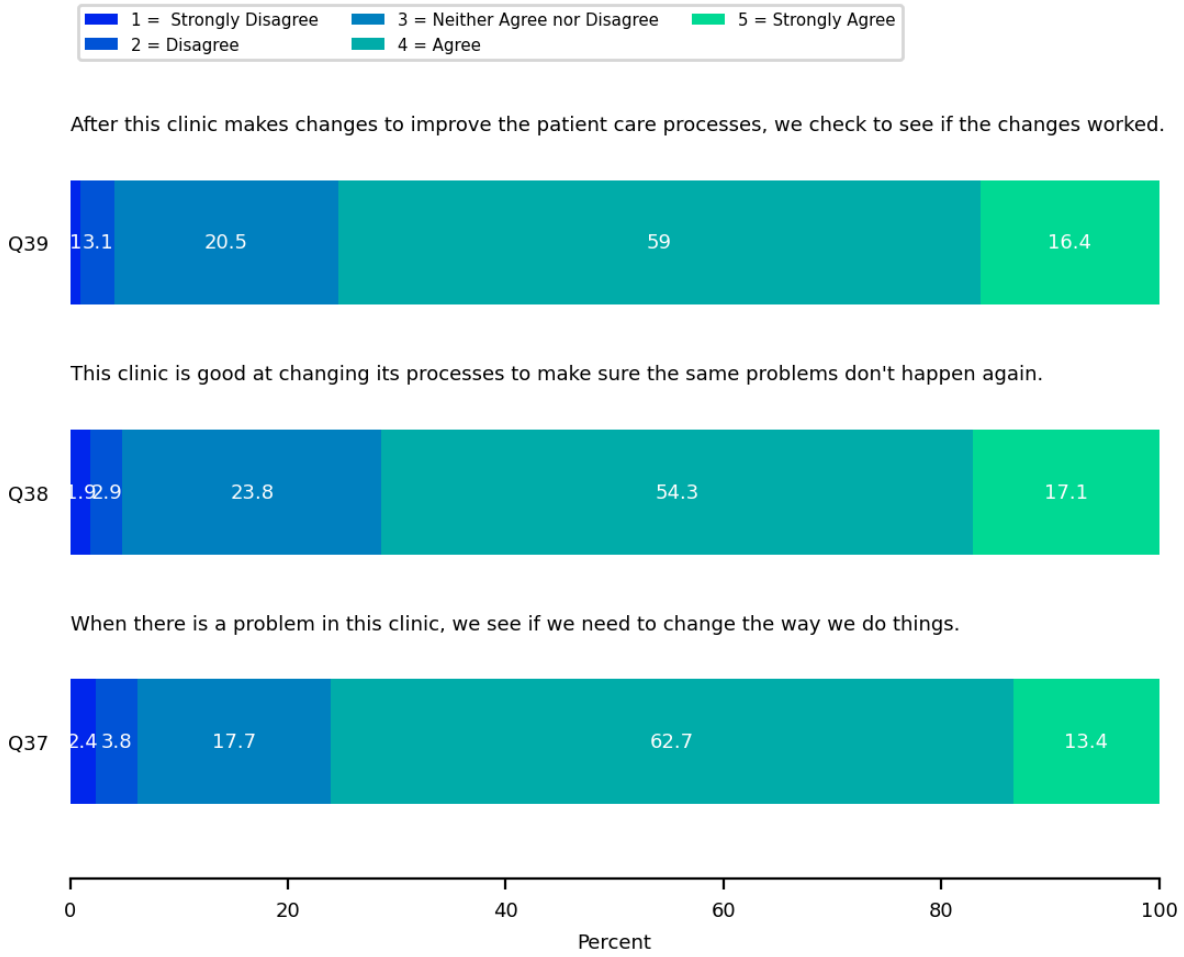
Results: According to the results, the average percent positive score is 69.0%, indicating that 69.0% of respondents either strongly agreed or agreed to strong office processes. The opportunities for improvement correspond to Q2 and Q3, with a significant fraction of participants Agreeing or Strongly Agreeing that the clinic is more disorganized than it should be (16.4%) and having workflow problems (23.8%). The alpha coefficient for the 4 items is 0.75 (0.69-0.80 CI), suggesting that the items have low internal consistency.

5. ORGANIZATIONAL LEARNING

Metric for Analysis. Combine scores as in previous outcomes. To generate the percent positive score, average the percent positive responses on items Q37 – Q39.

	Q37	Q38	Q39	Average
Percent positive score	76.1%	71.4%	75.4%	74.3%

Figure 13. *Impact Outcomes* with individual responses for organizational learning.



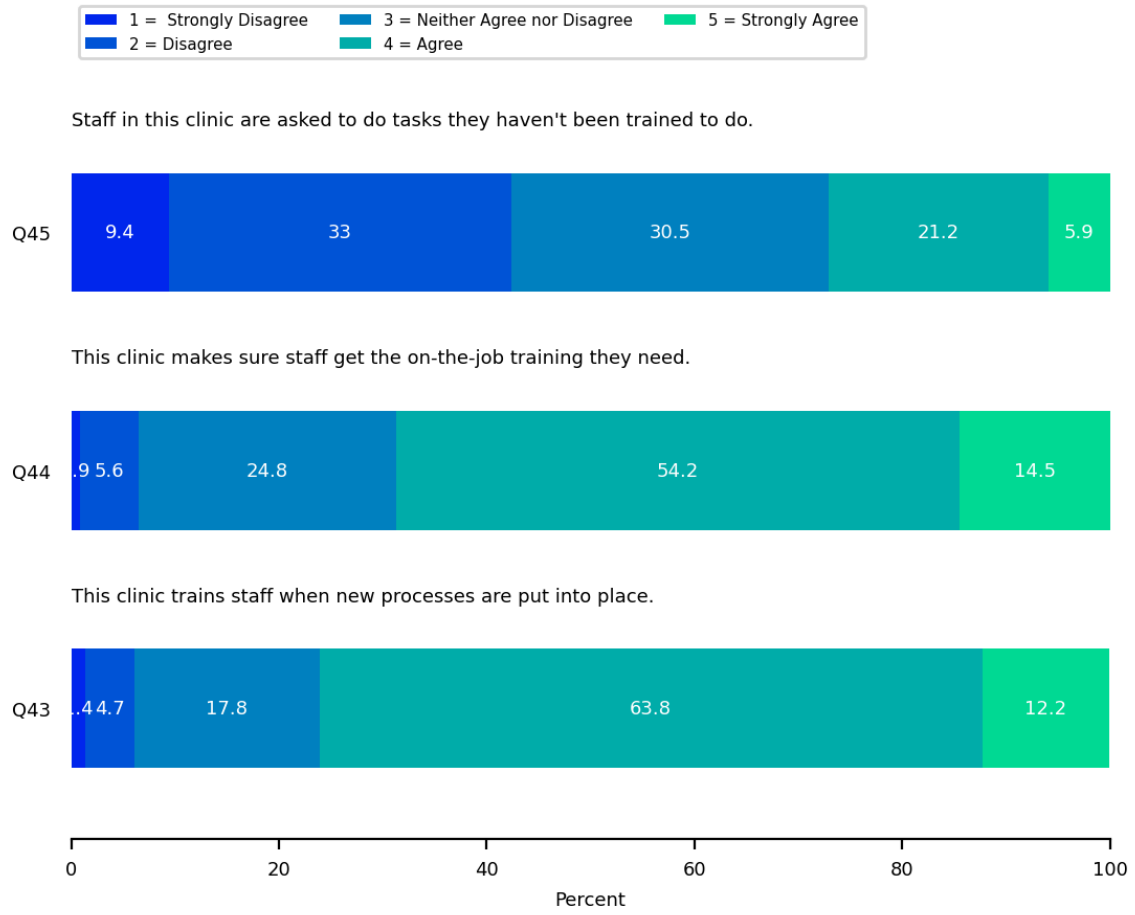
Results: According to the results, the average percent positive score is 74.3%, indicating that 74.3% of respondents either strongly agreed or agreed to strong organizational training. The alpha coefficient for the 3 items is 0.77 (0.72-0.82 CI), suggesting that the items have relatively high internal consistency.

6. STAFF TRAINING

Metric for Analysis. Combine scores as in previous outcomes. To generate the percent positive score, average the percent positive responses on items Q43 – Q45. We do not include negative or neutral responses in calculating this score.

	Q43	Q44	Q45	Average
Percent positive score	76.1%	68.7%	42.4%	62.4%

Figure 14. *Impact Outcomes* with individual responses for staff training.



Results: According to the results, the average percent positive score is 62.4%, indicating that 62.4% of respondents either strongly agreed or agreed to strong organizational training. An opportunity for improvement comes from insight that 27.1% of respondents Agree or Strongly Agree that they are asked to do tasks that they

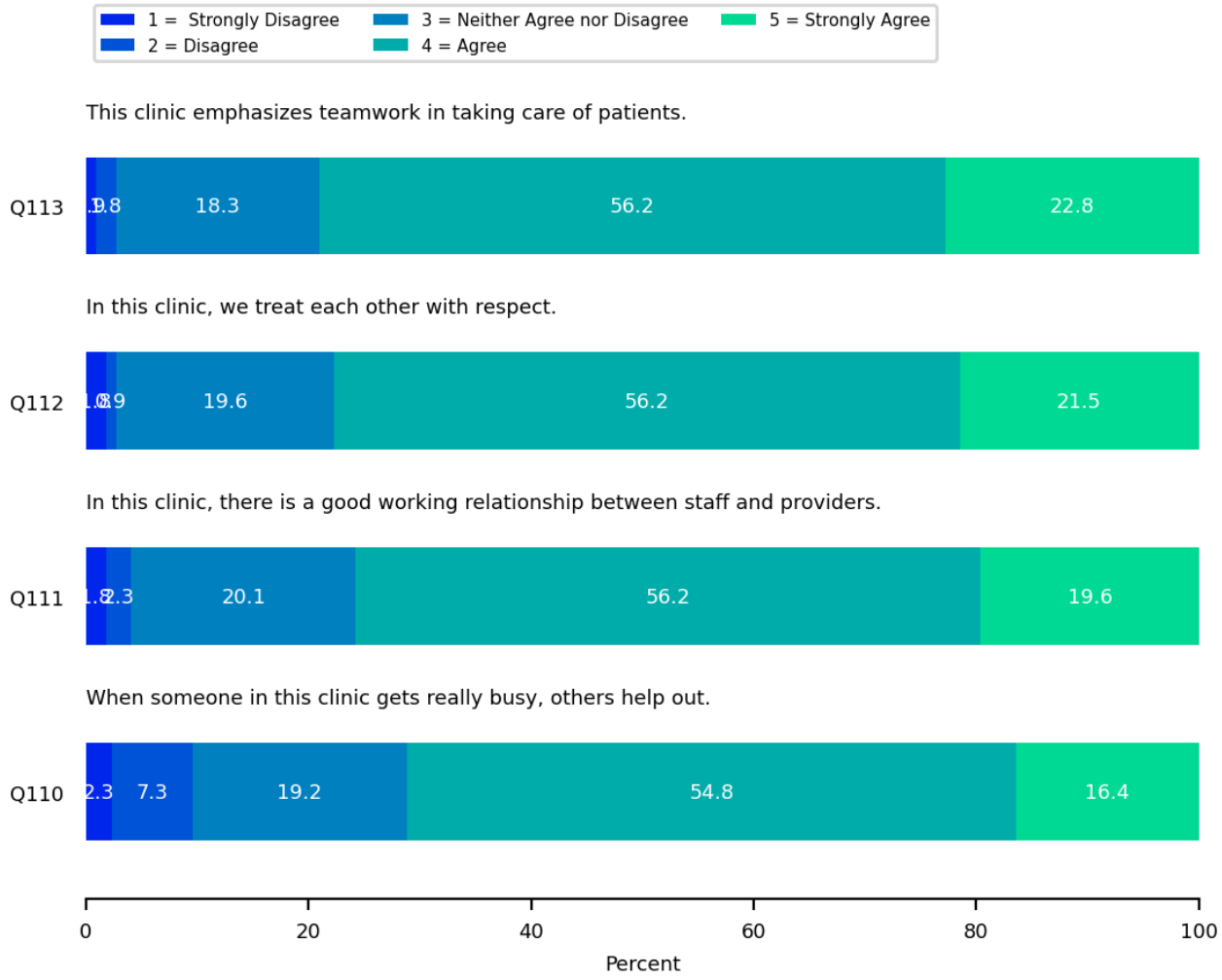
haven't been trained to do. The alpha coefficient for the 3 items is 0.48 (0.342-0.585 CI), suggesting that the items have relatively high internal consistency.

7. TEAMWORK

Metric for Analysis. Combine scores as in previous outcomes. To generate the percent positive score, average the percent positive responses on items Q110 – Q113.

	Q110	Q111	Q112	Q113	Average
Percent positive score	71.2%	75.8%	77.6%	79.0%	75.9%

Figure 15. *Impact Outcomes* with individual responses for teamwork.



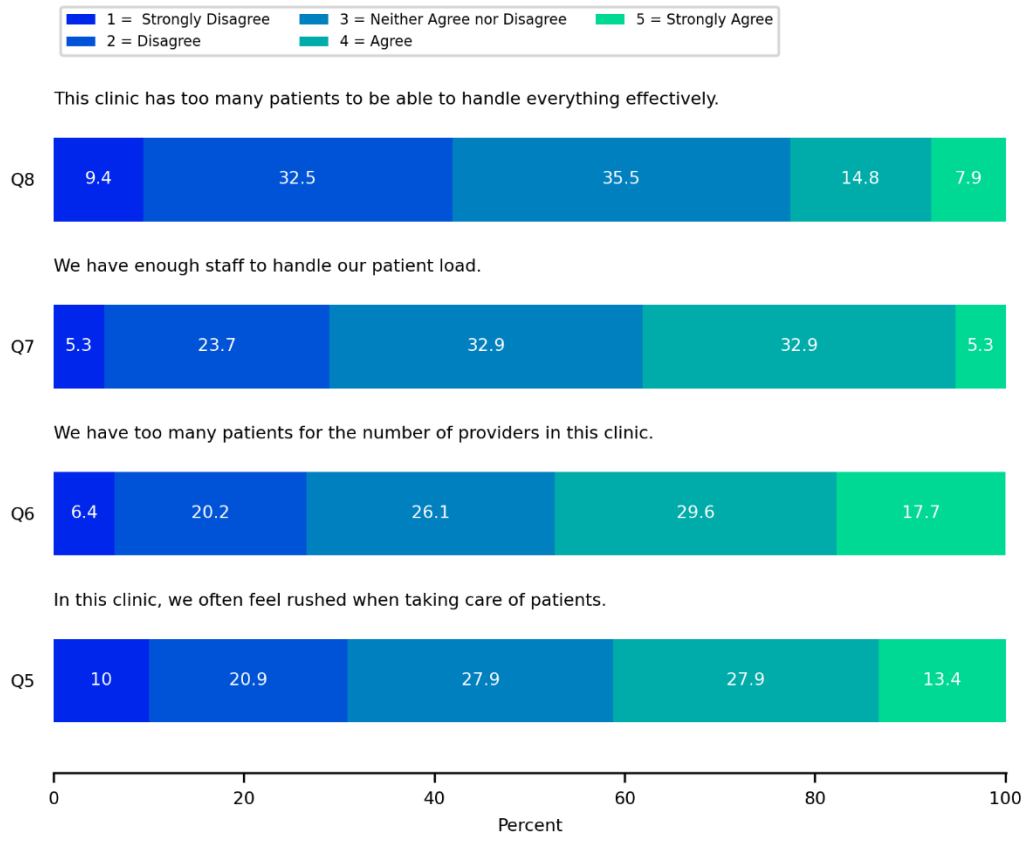
Results: According to the results, the average percent positive score is 75.9%, indicating that 75.9% of respondents either strongly agreed or agreed that the clinical setting has a strong teamwork. The alpha coefficient for the 4 items is 0.88 (0.85-0.90 CI), suggesting that the items have relatively high internal consistency.

8. WORK PRESSURE AND PACE

Metric for Analysis. Combine scores as in previous outcomes. To generate the percent positive score, average the percent positive responses on items Q5 – Q8.

	Q5	Q6	Q7	Q8	Average
Percent positive score	30.8%	26.6%	38.2%	41.9%	34.4%

Figure 16. *Impact Outcomes* with individual responses for work pressure and pace.



Results: Based on the findings, the average percentage of positive responses is 34.4%. This implies that 34.4% of the participants either agreed or strongly agreed that the workload and work pace at the clinic are unsuitable.

More specifically, 41.3% of the respondents feel rushed when attending to patients, 47.3% think that the number of patients is too high compared to the number of providers, 38.2% Agreed or Strongly Agreed that they have enough staff to handle patient load. The alpha coefficient for the four items is 0.79 (with a 0.74-0.83 confidence interval), indicating low internal consistency.

PHYSICIAN ADAPTABILITY OUTCOMES

1. PHYSICIAN ADAPTABILITY

Figure 17A. The *Adaptability of Physicians' Outcomes*. The median cultural competency score is 3.7 [IQR: 2-4], the minimum score is 1, and the maximum score is 5.

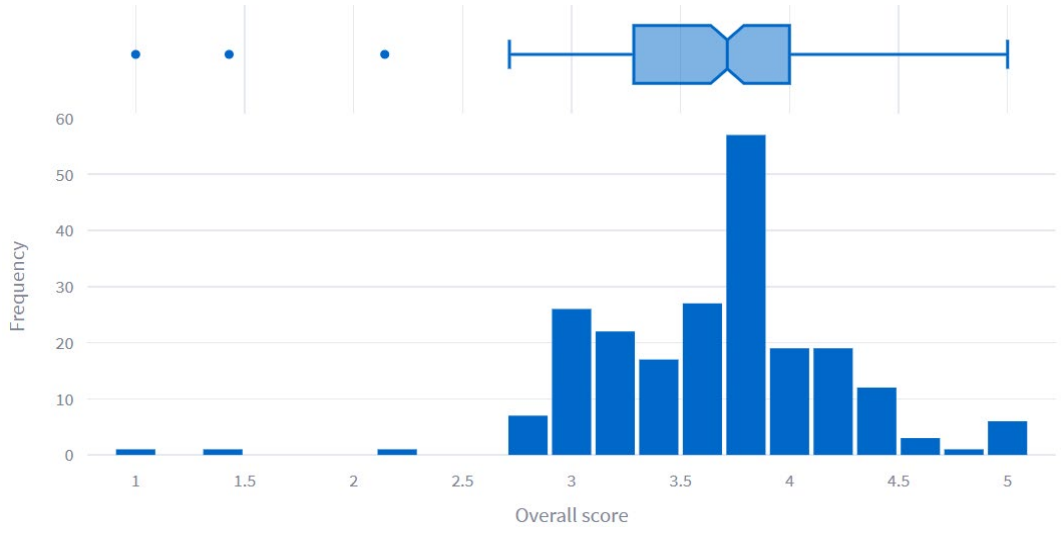
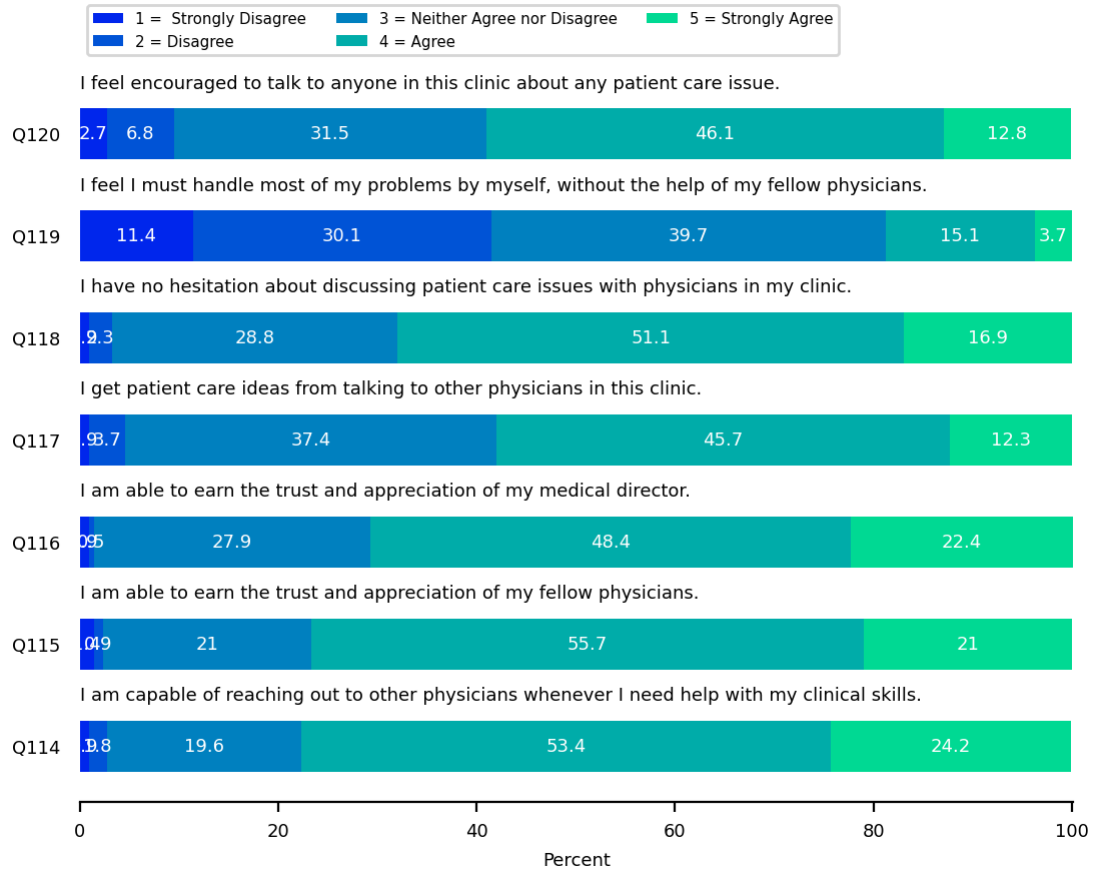


Figure 17B. *The Adaptability of Physicians' Outcomes* individual responses.



Results: The results indicate that there is a need to improve the staff's self-confidence in handling issues without depending on other physicians, as stated in Q119. Only 15.1% Agree and 3.7% Strongly Agree that they feel capable of dealing with problems independently.

2. PHYSICIAN CULTURE

Metric for Analysis. Q85-Q101: An overall score of cultural competence is obtained by summing the items (17 items with 5-point Likert scale) with higher scores indicating higher cultural competence. The scores can range from 33-85.

Figure 18A. The median cultural competency score is 62 [IQR: 56-68], the minimum score is 33, and the maximum score is 85. The alpha coefficient for the 17 items is 0.9 (0.88-0.92 CI), suggesting that the items have relatively high internal consistency.

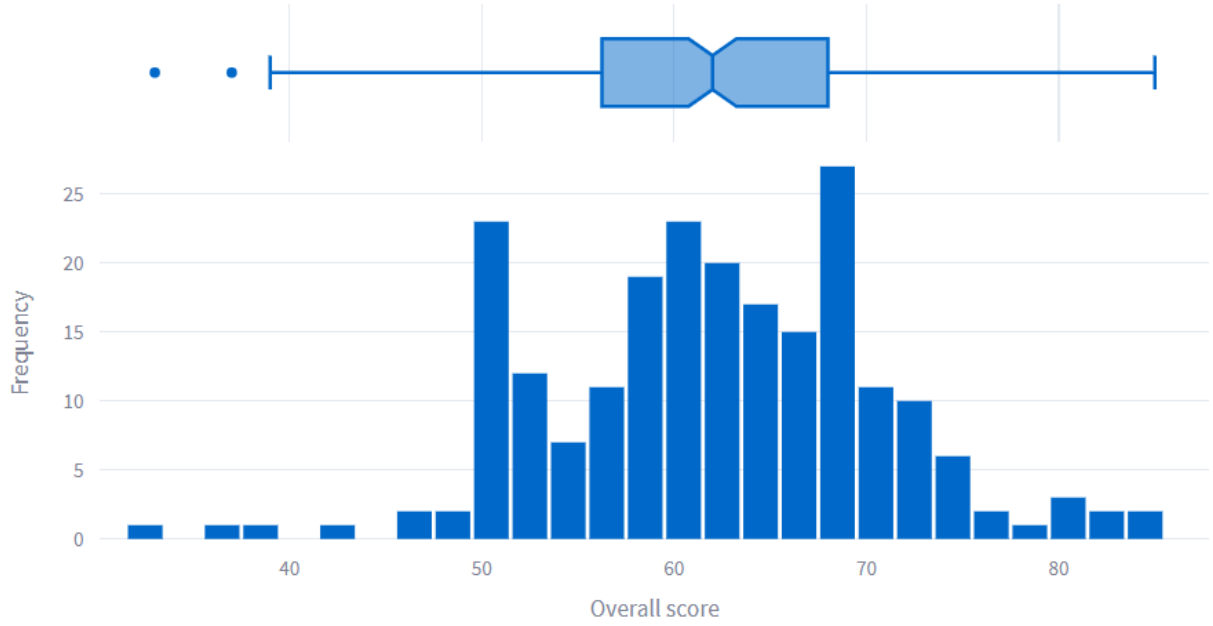
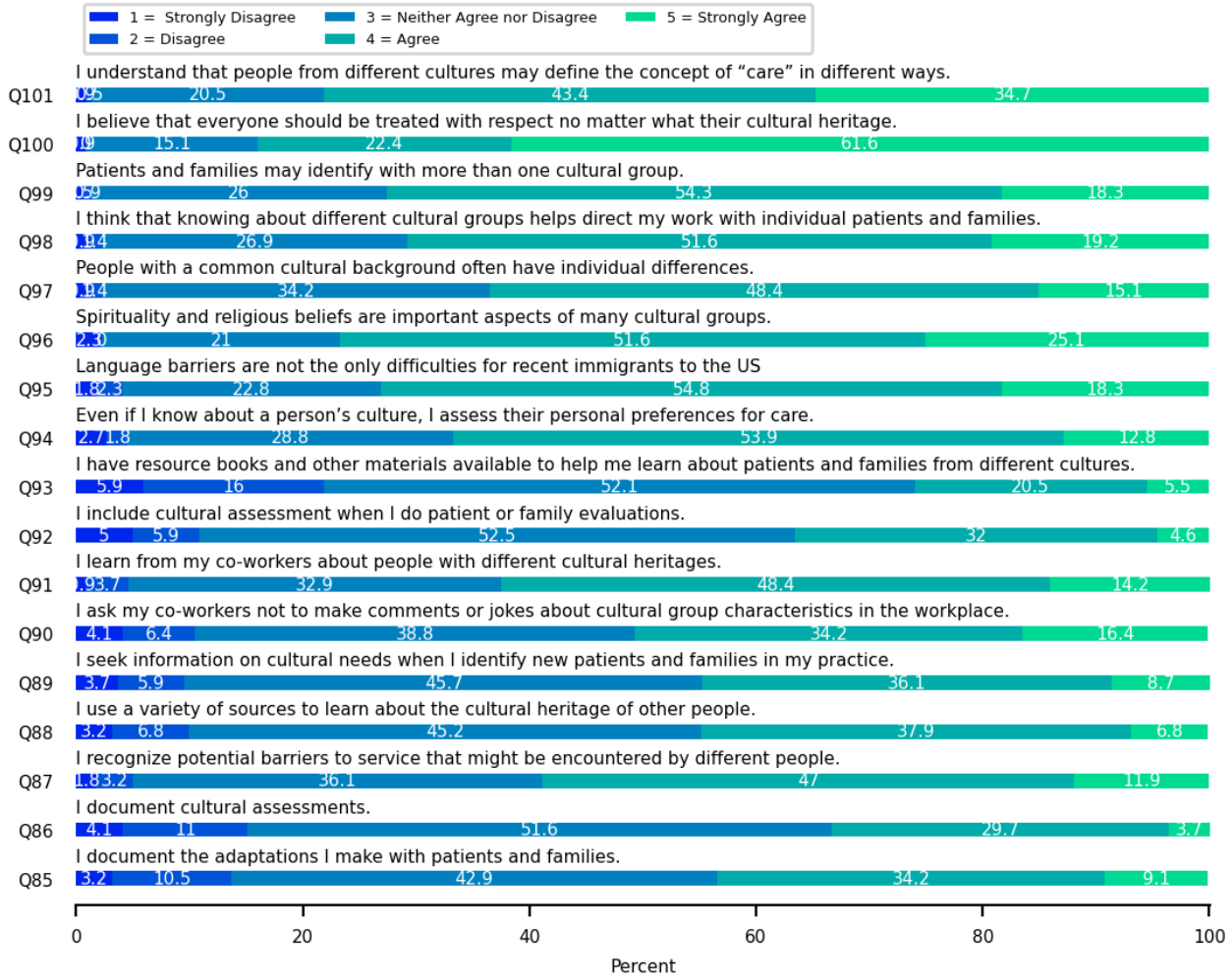


Figure 18B. *The adaptability of Physicians' Outcomes* with individual responses for Physician Culture.



Results: Evaluating the specific responses of staff corresponding to physician culture, there are three areas of potential opportunity (Q93, Q92, Q86). An overall of 21.9% of respondents reported concerns about having resource books and other materials available to help them learn about patients and families from different cultures [5.9% Strongly Disagree, 16.0% Disagree]. About 10.9% of participants reported challenges with including cultural assessment with patient or family evaluation assessments [5% Strongly Disagree, 5.9% Disagree].

3. PHYSICIAN SELF-ESTEEM

Metric for Analysis. Average the items Q114 – Q120 to generate one mean score.

Figure 19A. The median cultural competency score is 3.8 [IQR: 3.7-4.1], the minimum score is 2.5, and the maximum score is 5. The alpha coefficient for the 8 items is 0.77 (0.72-0.812 CI), suggesting that the items have relatively high internal consistency.

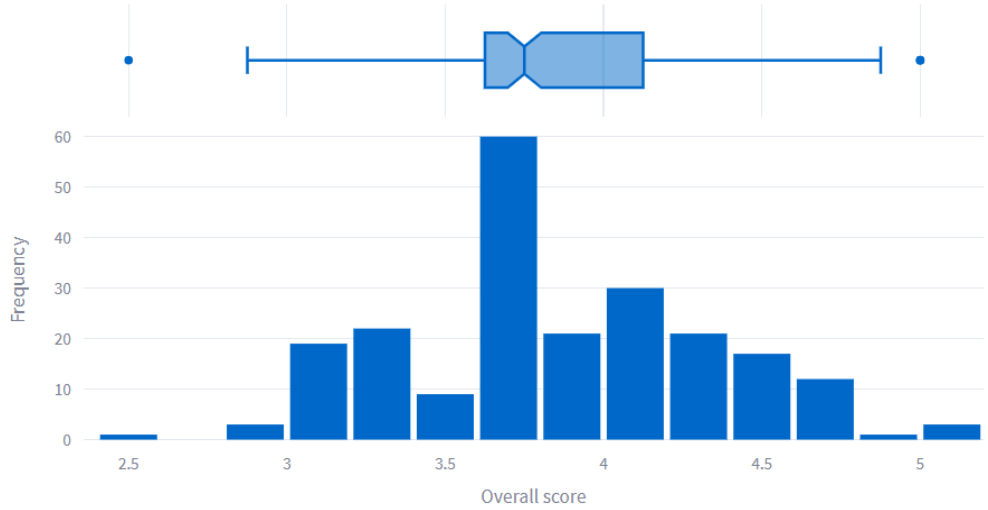
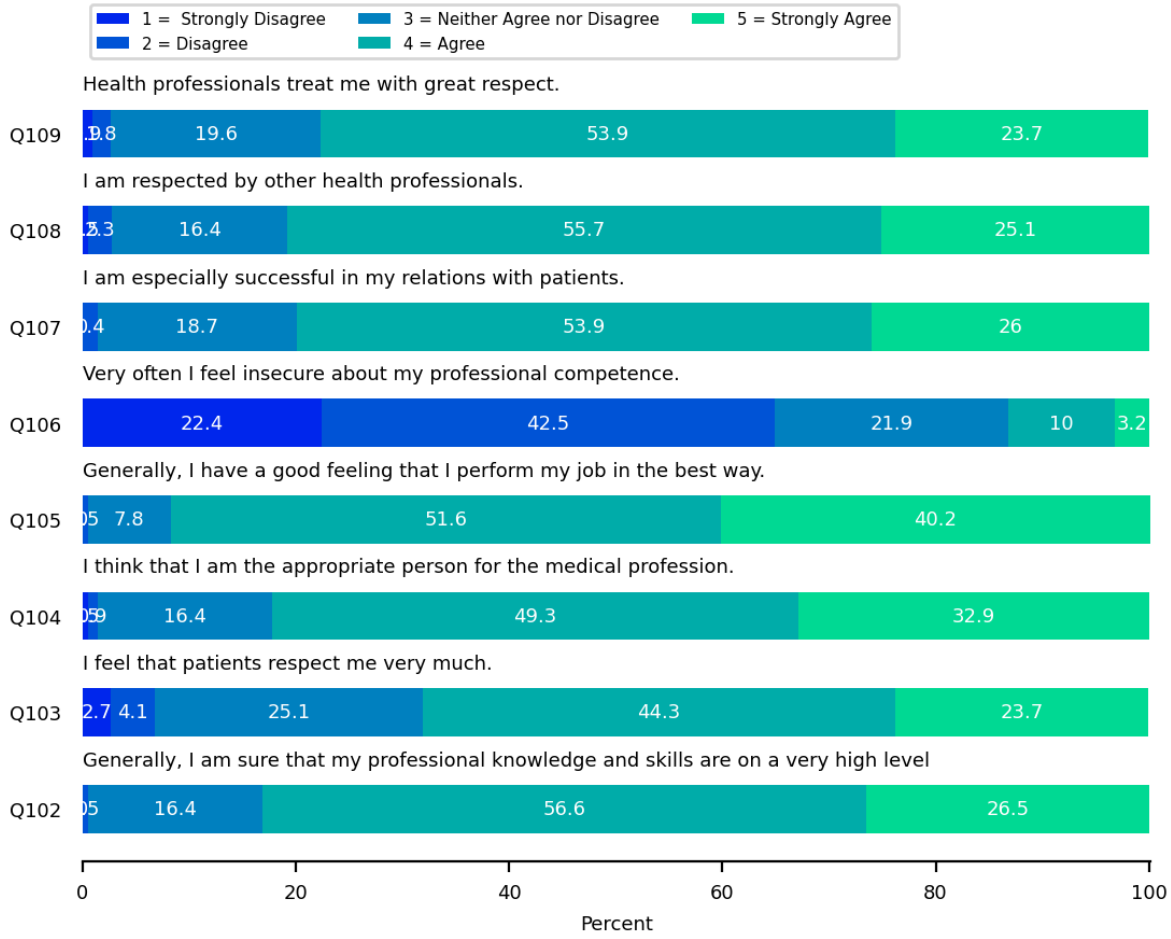


Figure 19B. *The Adaptability of Physicians' Outcomes* with individual responses for Physician Esteem.



Results: Based on the results, it appears that some physicians may experience feelings of insecurity about their professional competency (Q106). A total of 10% Agree and 3.2% Strongly Agree with this sentiment. Additionally, 4.1% of participants reported not feeling respected by their patients (Q103).

ADDITIONAL QUESTIONS ADDED BY CRHD

1. Impact of COVID-19 and the Future of Healthcare System

Over the past year, has your clinic experienced any of the following as a result of COVID-19 (QCOVID)?

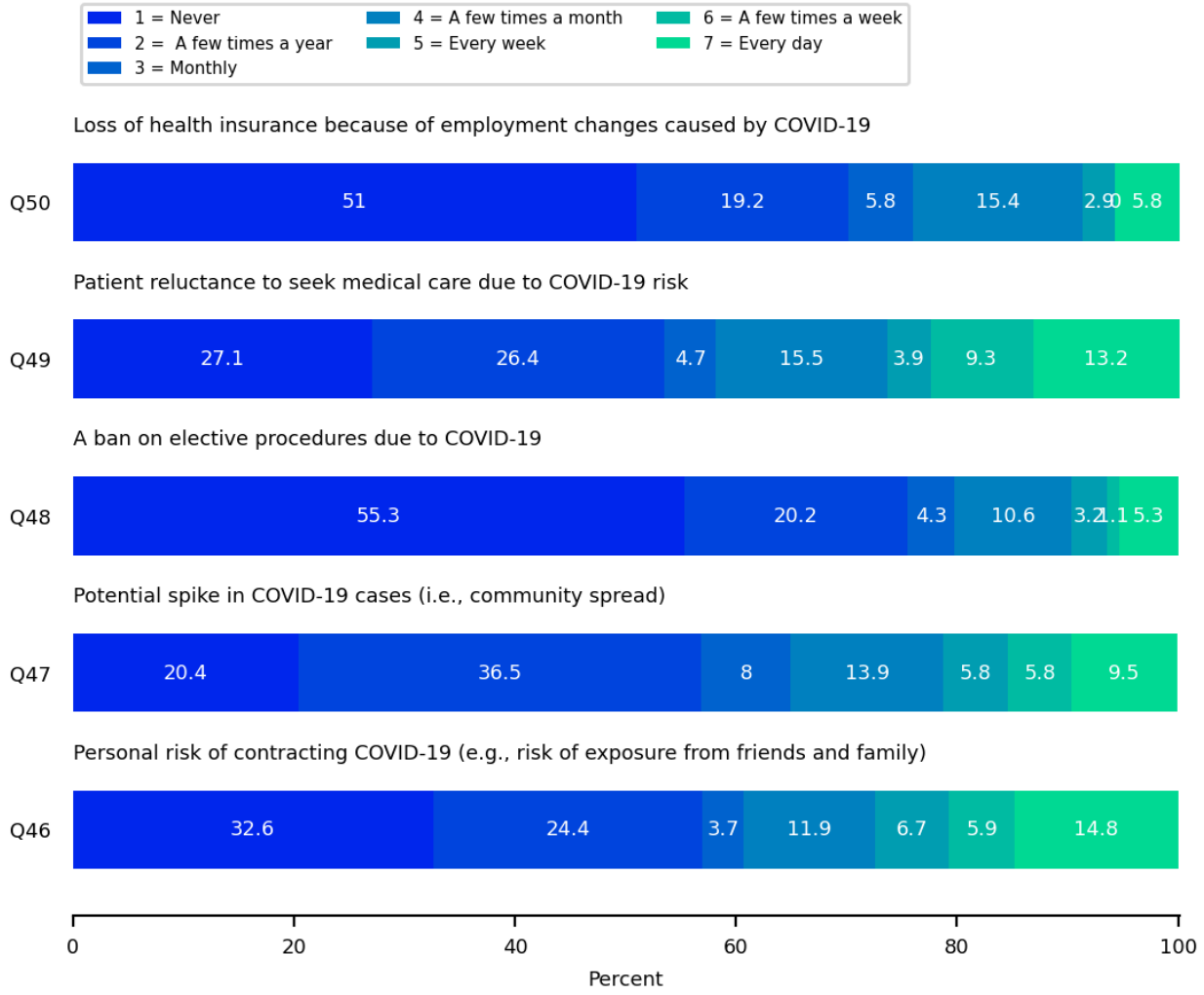
Table 3. Impact of COVID-19 and the Future of Healthcare System.

Response	N	Percent
Moved staff from direct patient care roles to…COVID-19 testing roles	98	44.7
Moved staff from direct patient care roles to...COVID-19 vaccination roles	78	35.6
Switched to primarily telehealth practice	65	29.7
Increased clinic services	61	27.9
Reduced staff	61	27.9
Increased staff	53	24.2
Added drive-thru clinic visit to practice	14	6.4
The clinic site was closed and consolidated with other sites	12	5.5
Moved staff from direct patient care roles to...research roles	10	4.6
Reduced clinic services	10	4.6
Reduced clinic hours	9	4.1
Closed clinic for more than 3 business days (no patient contacts)	4	1.8
Reduced staff salaries	4	1.8

Results: Reported impacts on clinical activities include staff being redirected from direct patient care to COVID-19 testing (44.7%) and vaccination roles (35.6%). COVID-19 has also led to significant changes such as increased telehealth practice (29.7%), expansion of clinic services, and staff reductions (27.9%).

Impact of COVID-19 on Physician's Practices and Patients

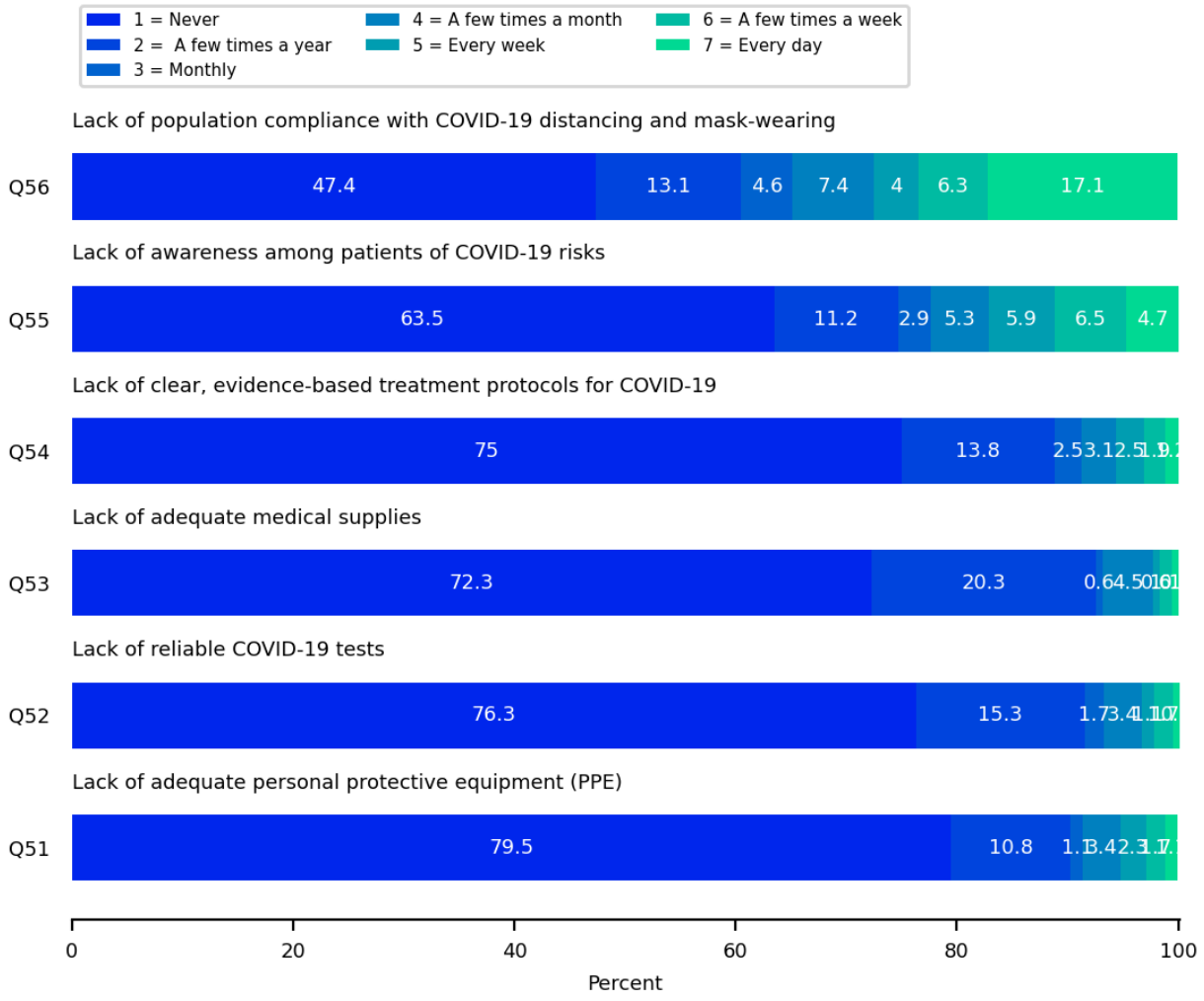
Figure 20. Impact of COVID-19 on Physicians' Practices and Patients.



Results: A considerable number of participants indicated that they face a personal risk of contracting COVID-19 *a few times a month* (11.9%). Additionally, 15.3% expressed concerns about a potential spike in COVID-19 cases (Strongly Agree 9.5% and Agree 5.8%), 6.4% reported a ban on elective procedures due to COVID-19, 22.5% mentioned patient reluctance to seek medical care due to COVID-19, and 5.8% reported losing their insurance due to employment changes caused by COVID-19. The alpha coefficient for the 5 items is 0.87 (0.84-0.90 CI), suggesting that the items have relatively high internal consistency.

3. Impact of COVID-19 on Physician's Wellbeing

Figure 21. Impact of COVID-19 on Physician's Well-Being.



Results: 7.4% of participants indicated a lack of population compliance with COVID-19 distancing and mask-wearing (Q56) a few times a month. Additionally, 5.3% and 4.5% reported a lack of awareness among patients of COVID-19 risks (Q55), and lack of adequate supplies (Q53) a few times a month, respectively. The alpha coefficient for the 6 items is 0.95 (0.93-0.96 CI), suggesting that the items have relatively high internal consistency.

4. Joy in Work - Experienced meaningfulness of the Work (Institute for Healthcare Improvement)

Metric for Analysis. Average the items Q121 - Q124 to generate one mean score.

Figure 22A. The median cultural competency score is 3.0 [IQR: 2.75-3.3], the minimum score is 2, and the maximum score is 5.

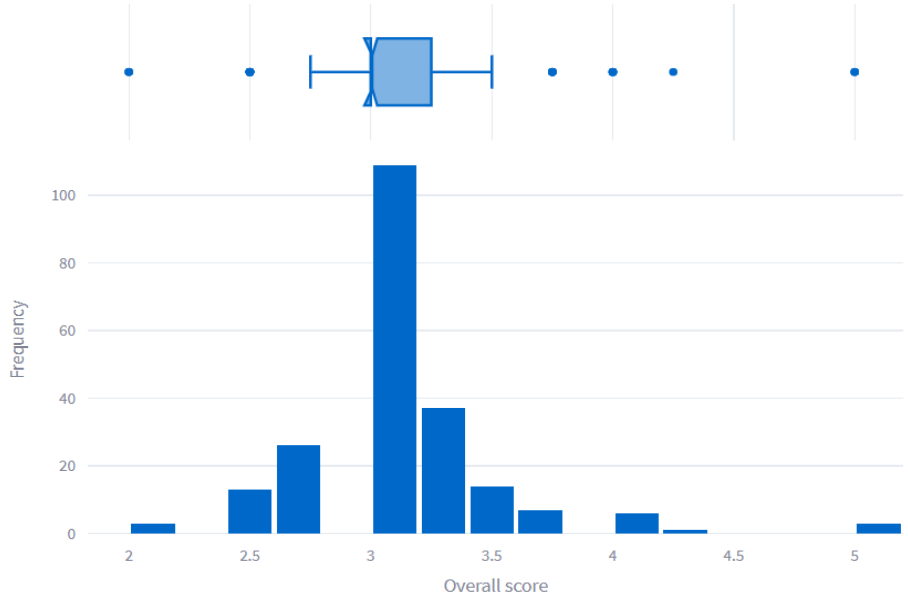
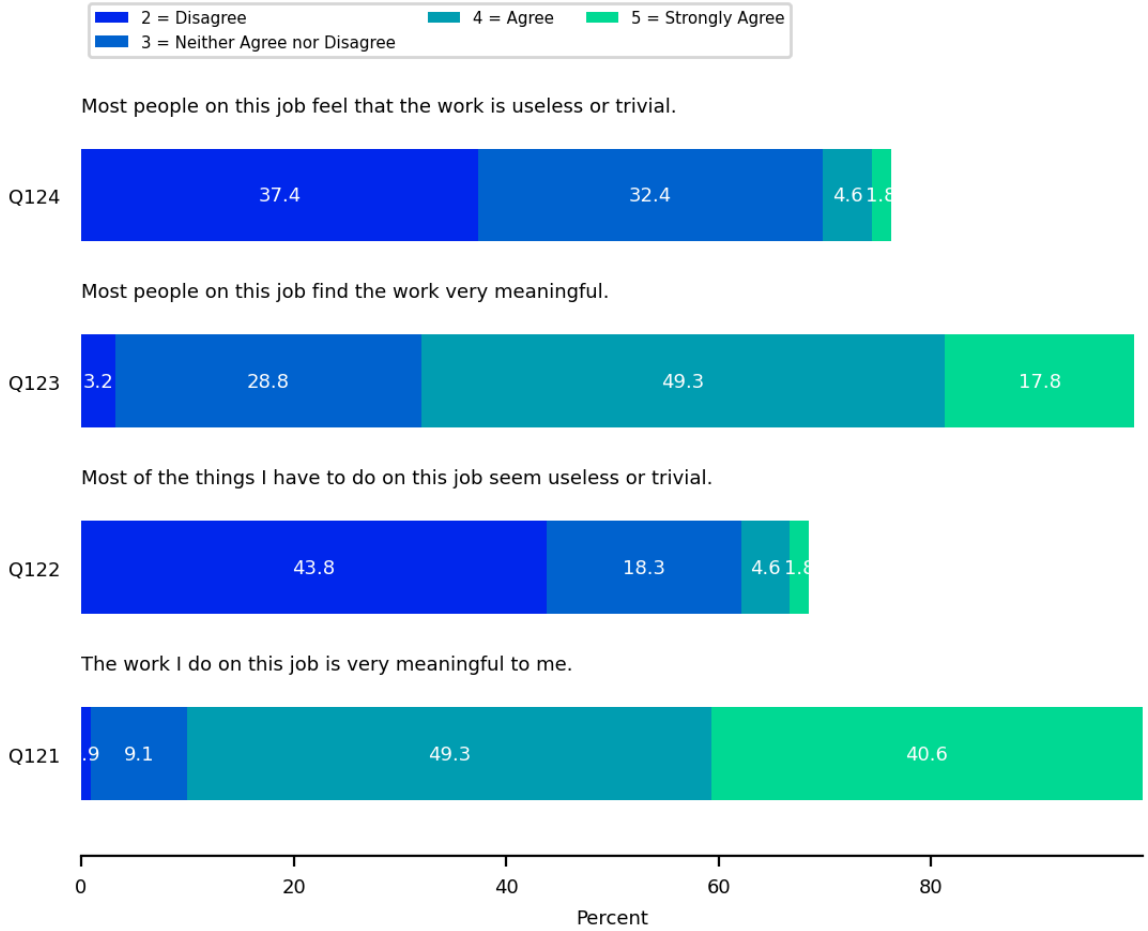


Figure 22B. Joy in work and meaningfulness in the experiences in the clinical setting.



Results: The survey results indicate that most participants feel a deep sense of purpose in their work. For instance, 89.9% of participants reported Agreeing or Strongly Agreeing with the statement that their work is meaningful to them (Q121). Moreover, 67.1% Agreed or Strongly Agreed that most people in their job find their work meaningful (Q123).

5. Joy in Work – General Satisfaction (Institute for Healthcare Improvement)

Metric for Analysis. Average the items Q125 - Q129 to generate one mean score.

Figure 23A. The median cultural competency score is 3.4 [IQR: 3.2-3.5], the minimum score is 1.5, and the maximum score is 5.

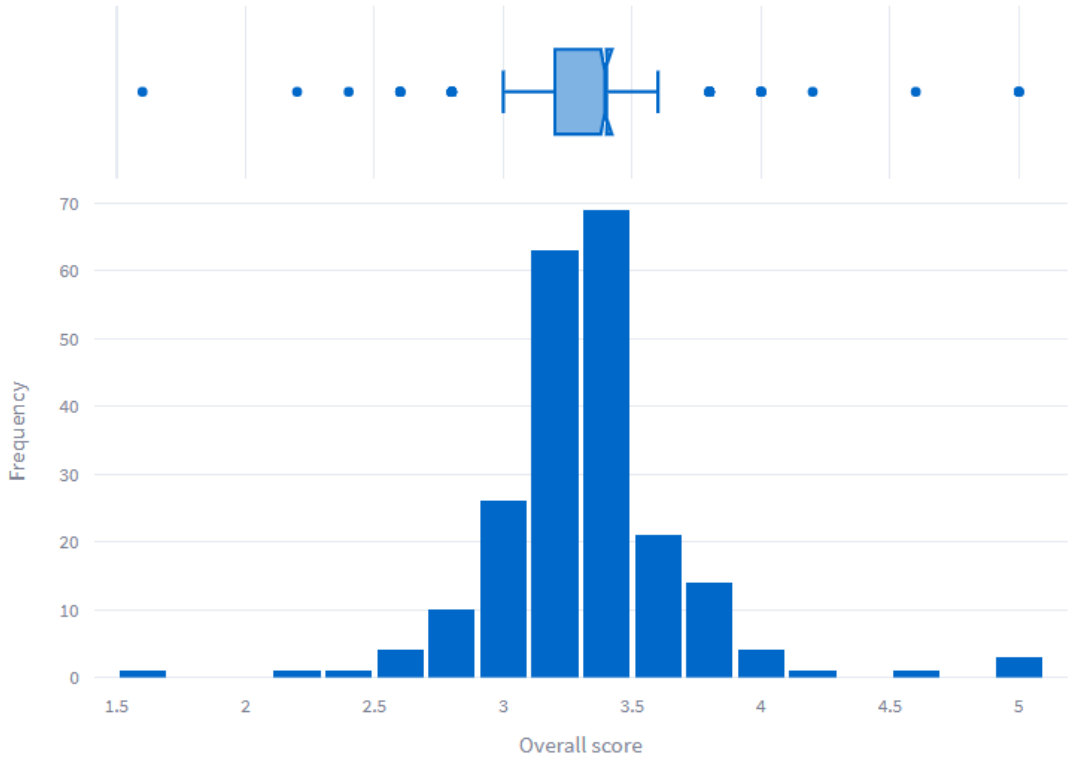
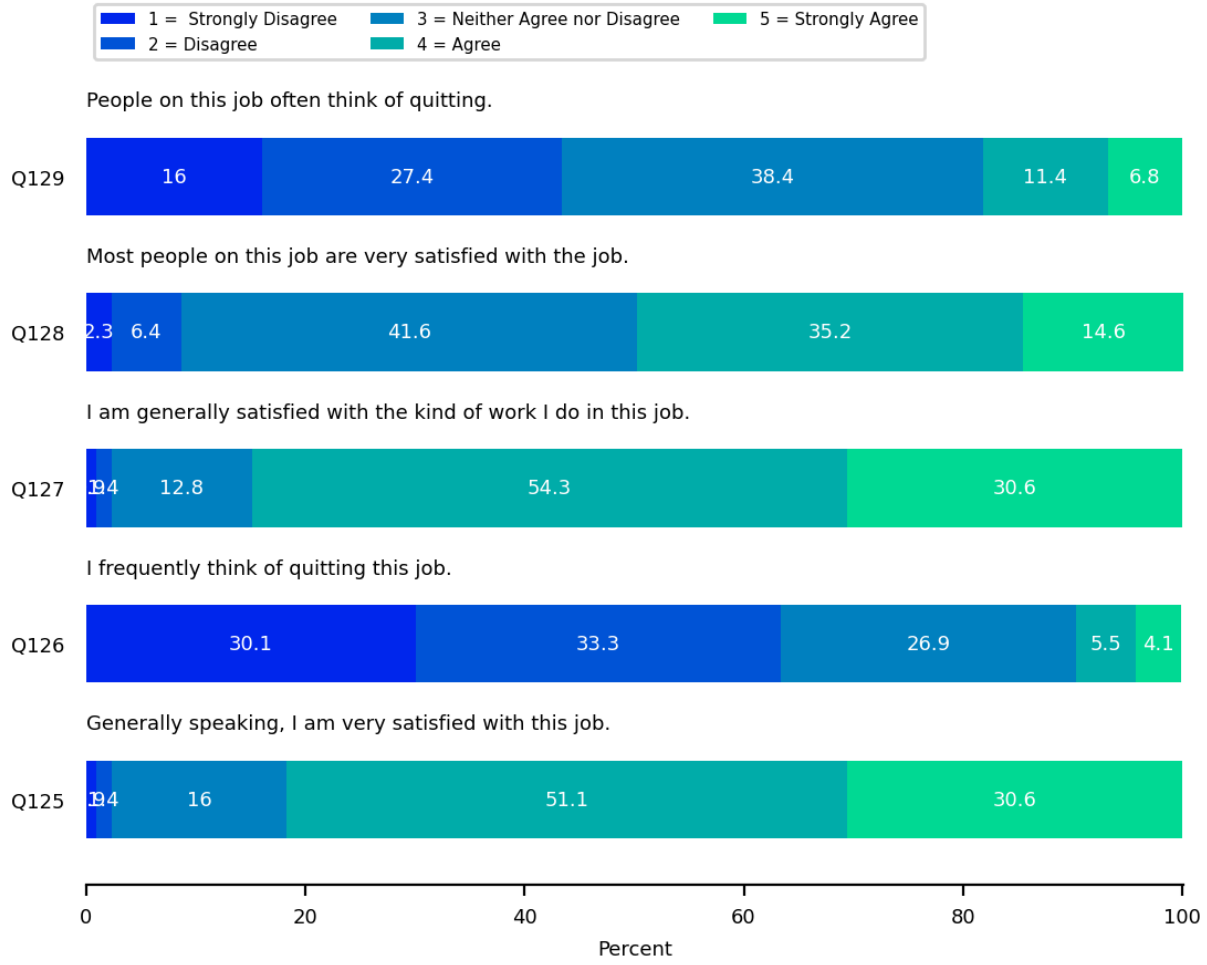


Figure 23B. Joy in work, general satisfaction.



Results: There are two areas that have the potential to enhance overall job satisfaction. A considerable proportion of the respondents (11.4%) Agreed, while 6.8% Strongly Agreed, that they often feel like quitting their job. Furthermore, 6.4% Disagreed, and 2.3% Strongly Disagreed, that the majority of people are highly satisfied with their current job. The alpha coefficient for the 5 items is -0.23 (-0.511-0.008 CI), suggesting that the items have low internal consistency.

6. Physician Well-being, Psychological Distress

Metric for Analysis. Q142-Q147: An overall score of cultural competence is obtained by summing the items (6 items with 5-point Likert scale) with higher scores indicating higher cultural competence. The scores can range from 0-24.

Figure 24A. The median cultural competency score is 2.0 [IQR: 0-5], the minimum score is 0, and the maximum score is 24.

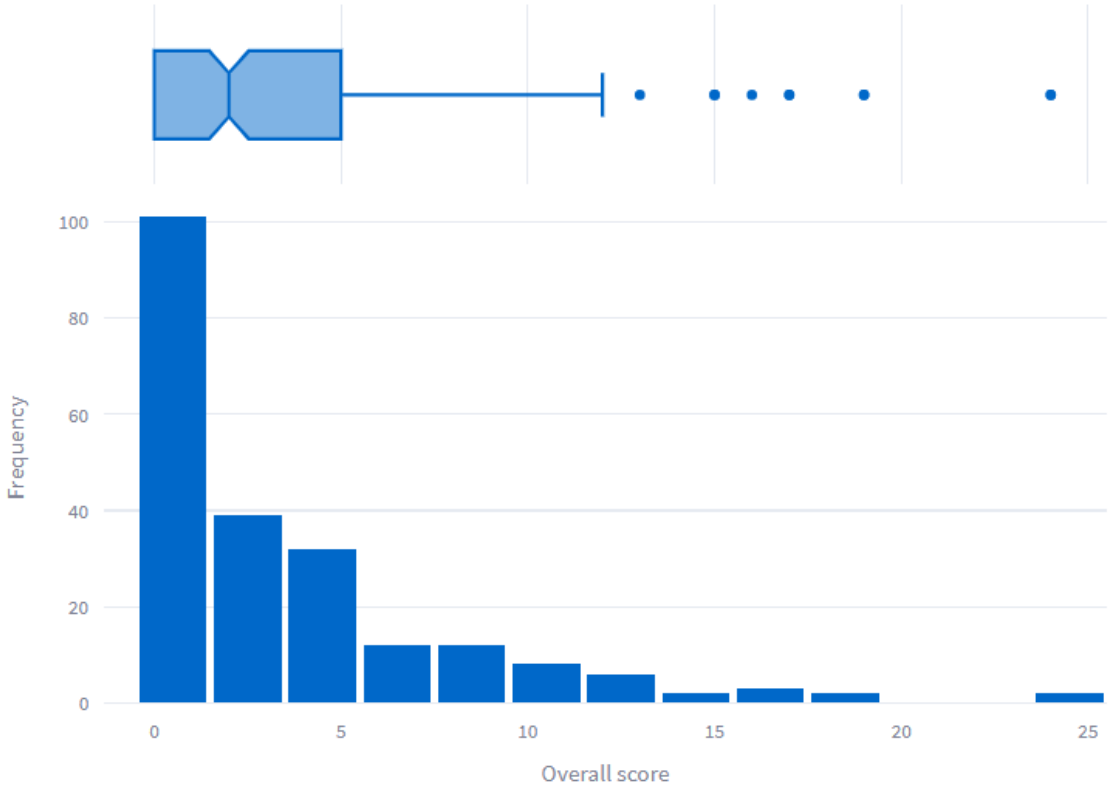
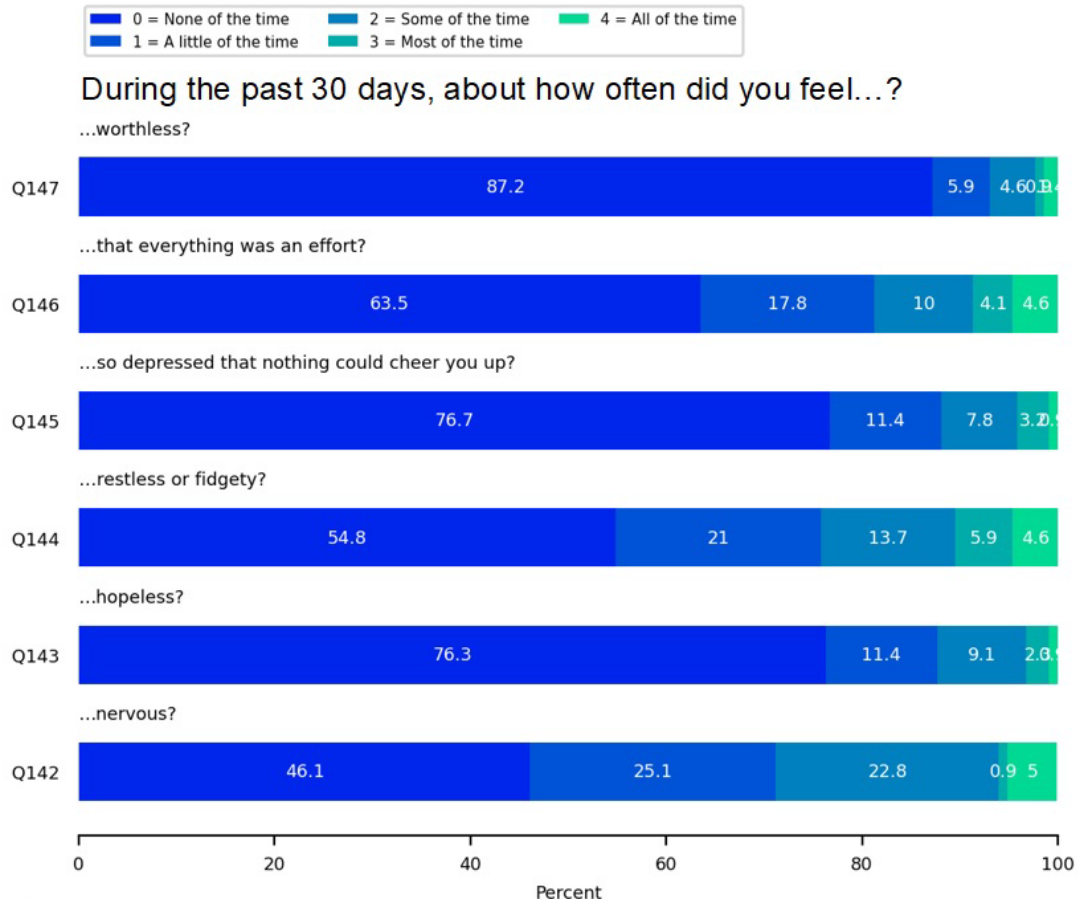


Figure 24B. Physician Well-being, Psychological Distress



Results: There are two areas of concern regarding well-being and psychological distress. Out of the participants, 10.5% reported feeling restless or fidgety (Q144) Most or All of the time, while 8.7% stated that everything felt like an effort (Q146) most or all of the time. The alpha coefficient for the 6 items is 0.88 (0.85-0.90 CI), suggesting that the items have relatively high internal consistency.

7. Risk of Burnout – Depersonalization (Institute for Healthcare Improvement)

Metric for Analysis. Average the items Q133 - Q135 to generate one mean score.

Figure 25A. The data is very limited in providing variability given that the majority of participants reported an overall score of 1.

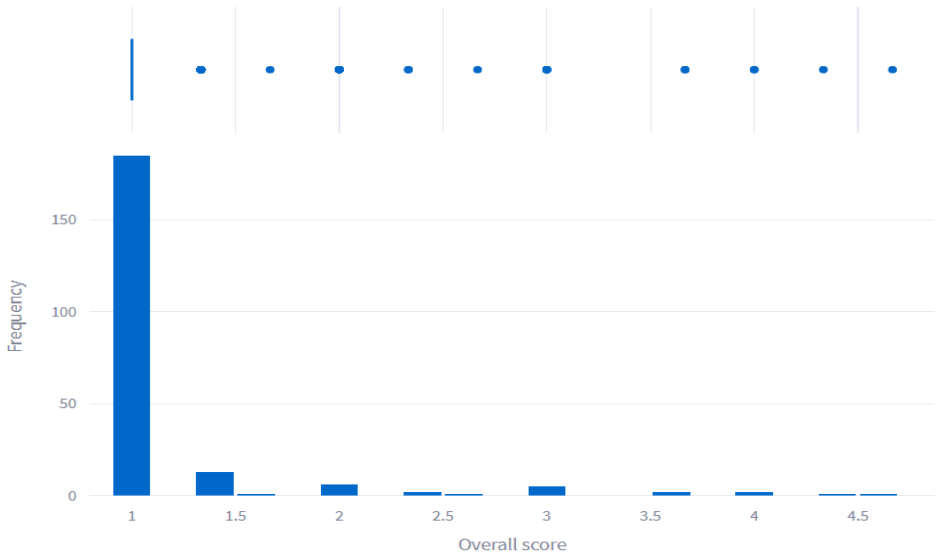
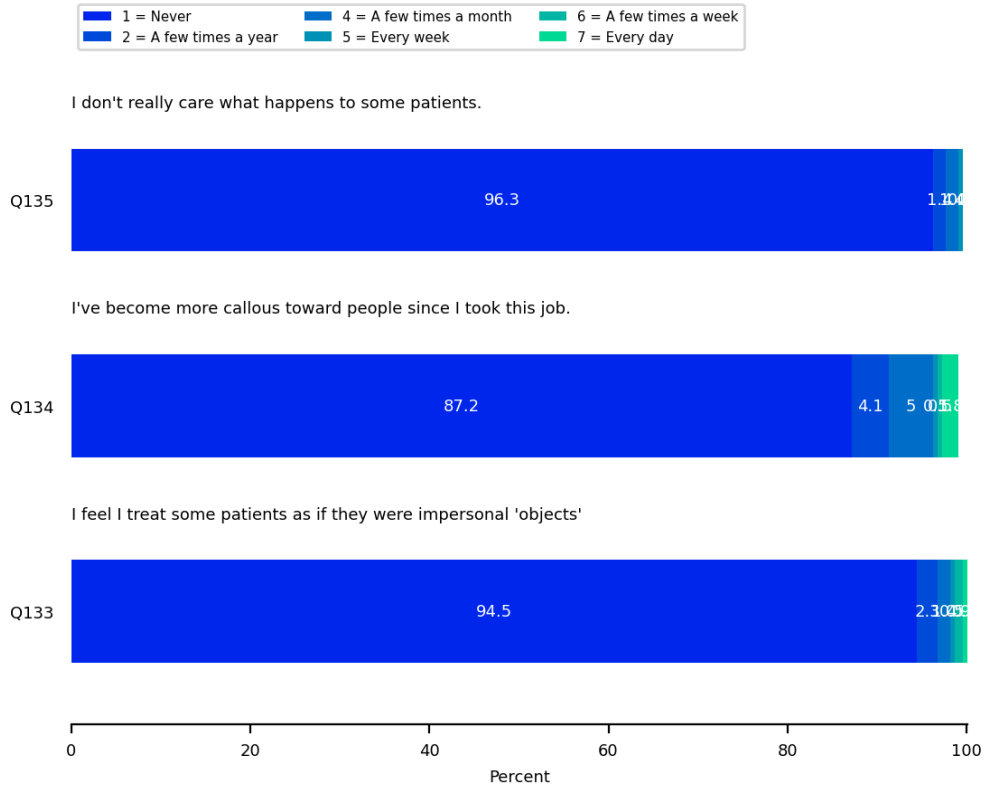


Figure 25B. Risk of burnout, depersonalization.

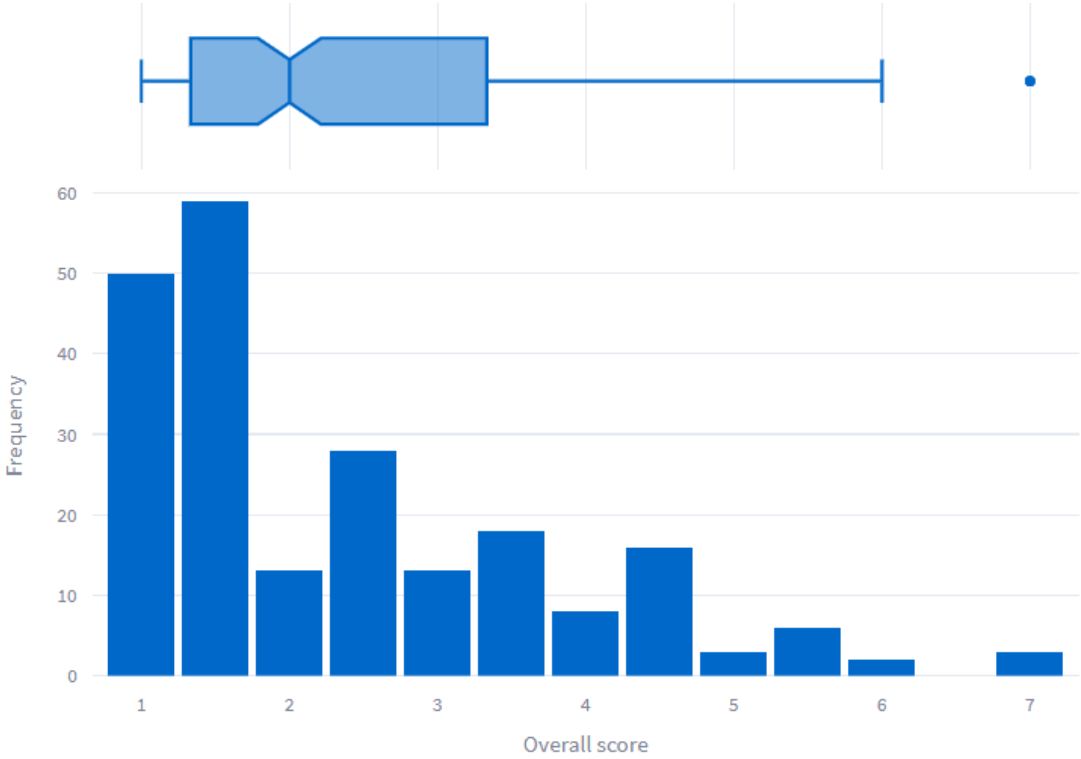


Results: A considerable percentage of respondents identified very low levels of burn out and depersonalization. Most of the respondents (96.3%) stated that they have never developed an indifferent attitude toward patients, nor do they feel they have become more callous since starting their job (87.2%). A large percentage of participants (94.5%) have never treated patients as impersonal objects. The alpha coefficient for the three items is 0.59 (0.49-0.68 CI), indicating that the items have poor internal consistency.

8. Risk of Burnout – Emotional Exhaustion (Institute for Healthcare Improvement)

Metric for Analysis. Average the items Q130 - Q132 to generate one mean score.

Figure 26A. The median emotional exhaustion score is 2.0 [IQR: 1.3-3.3], the minimum score is 1, and the maximum score is 7.



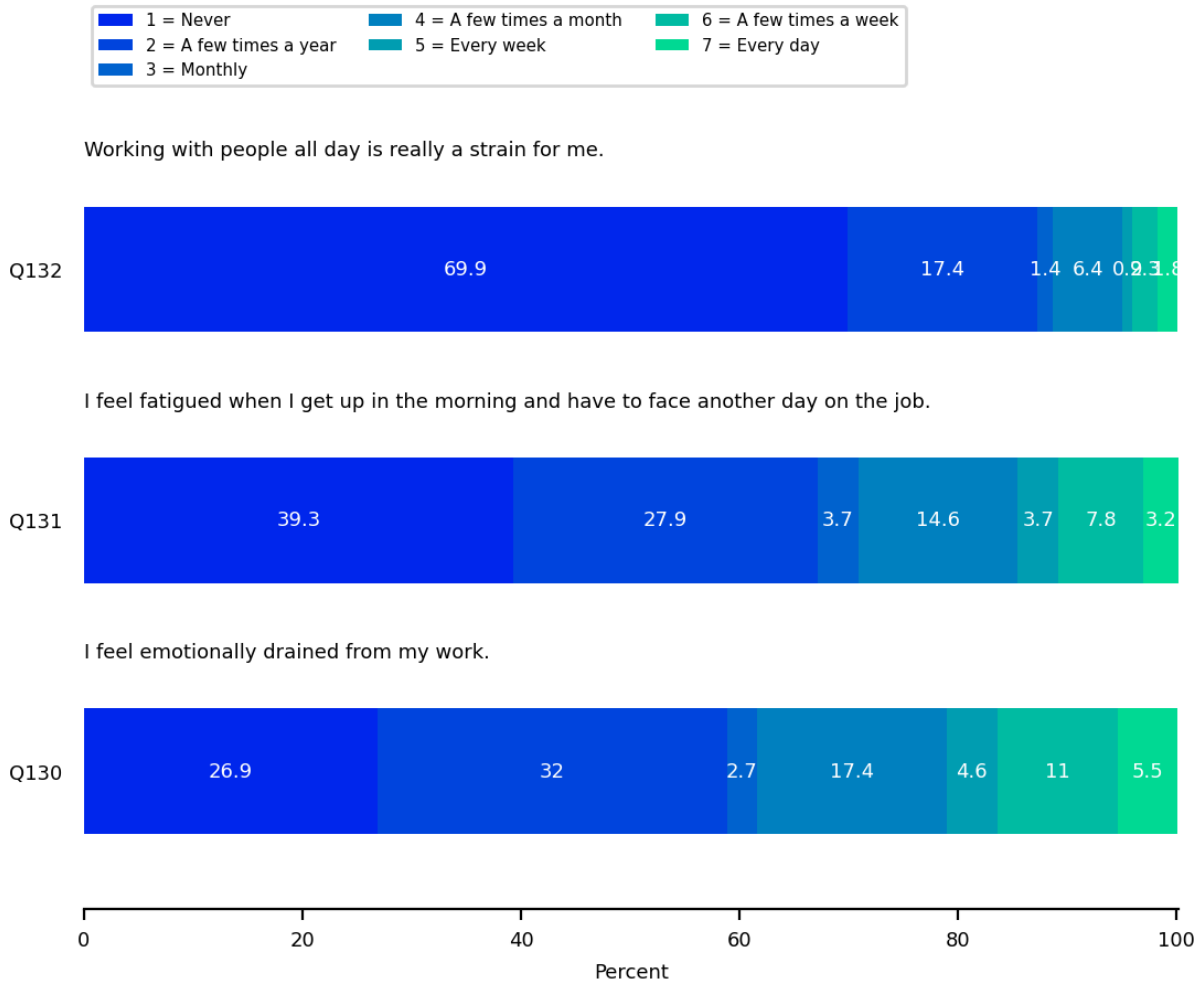


Figure 26B. A large majority of respondents (73.2%) feel emotionally drained from their work. Additionally, 60.9% of respondents feel fatigued when they wake up for work, and 30.1% find it stressful to work with people all day, with some frequency. A small percentage of respondents (5.5%, 3.2%, and 1.8%) reported feeling emotionally exhausted every day for each respective question. The alpha coefficient for all three questions is 0.78 (0.72-0.83), indicating that the questions are consistent with each other.

9. Risk of Burnout- Involvement (Institute for Healthcare Improvement)

Metric for Analysis. Average the items Q139 - Q141 to generate one mean score.

Figure 27A. The median burnout involvement score is 3.0 [IQR: 1.3-4.3], the minimum score is 1, and the maximum score is 7.

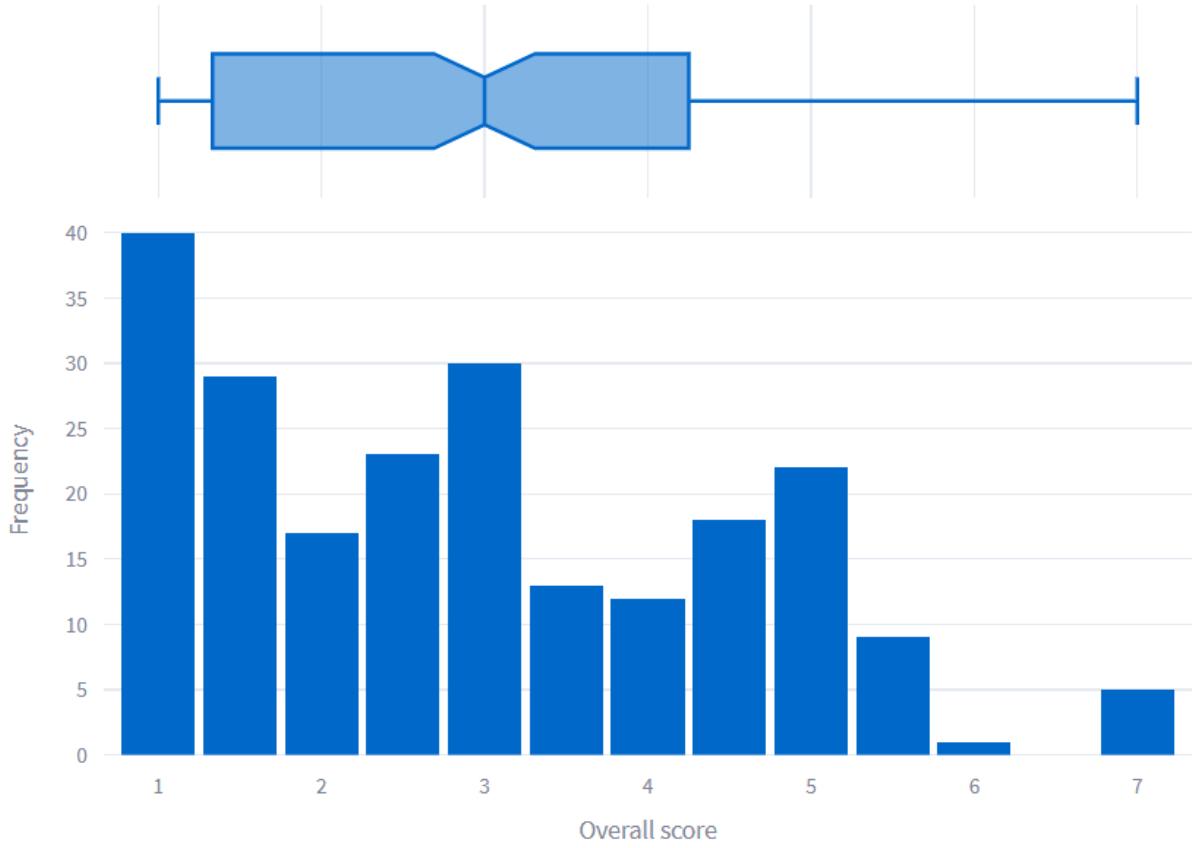
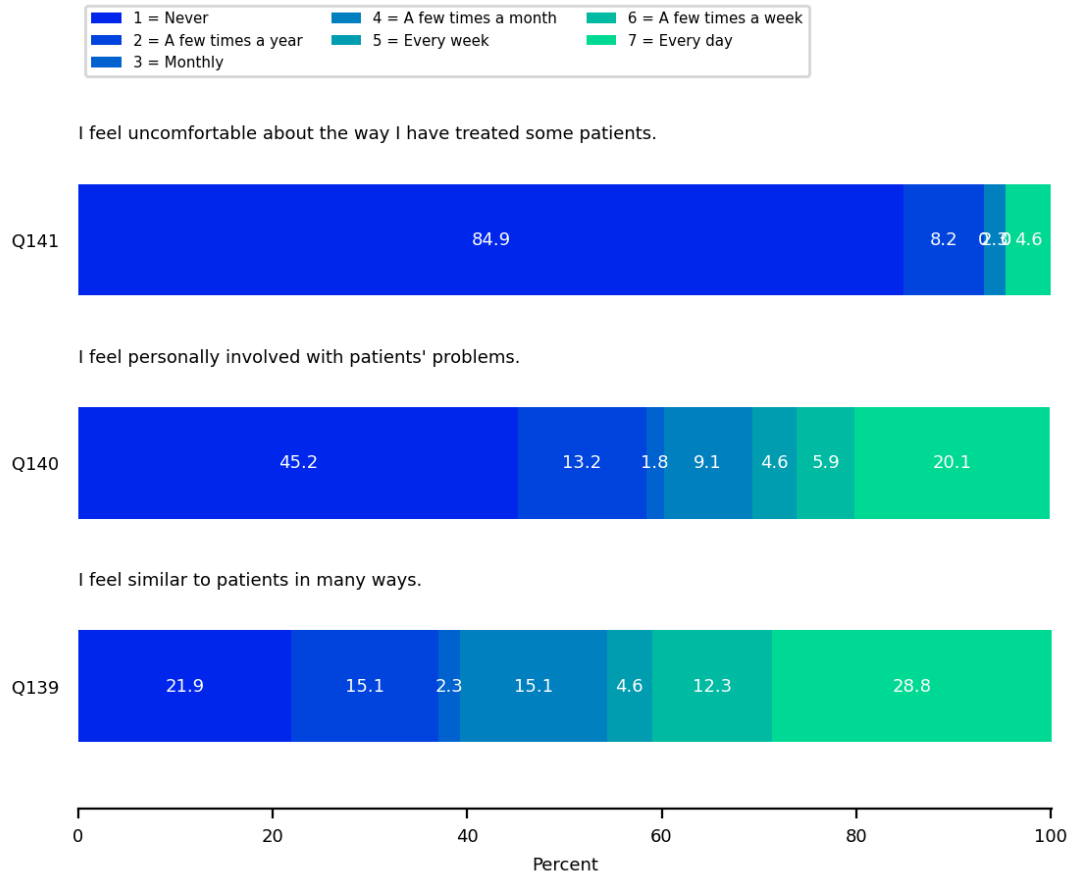


Figure 27B. Risk of Burnout- Involvement.



Results: A considerable proportion of participants (78.2%) experience feelings similar to those of patients quite often, with 28.8% feeling this way on a daily basis. Moreover, 54.7% of the respondents expressed a sense of personal involvement in their patients' problems to some extent, while 20.1% feel this way every day. Lastly, 15.1% of the participants sometimes feel uneasy about their approach toward certain patients, and 4.6% feel this discomfort daily. The alpha coefficient for the 3 items is 0.58 (0.47-0.67 CI), suggesting that the items have low internal consistency.

10. Risk of Burnout - Personal Accomplishment (Institute for Healthcare Improvement)

Metric for Analysis. Average the items Q136 - Q138 to generate one mean score.

Figure 28A. The median cultural competency score is 5.0 [IQR: 3.3-7.0], the minimum score is 1, and the maximum score is 7.

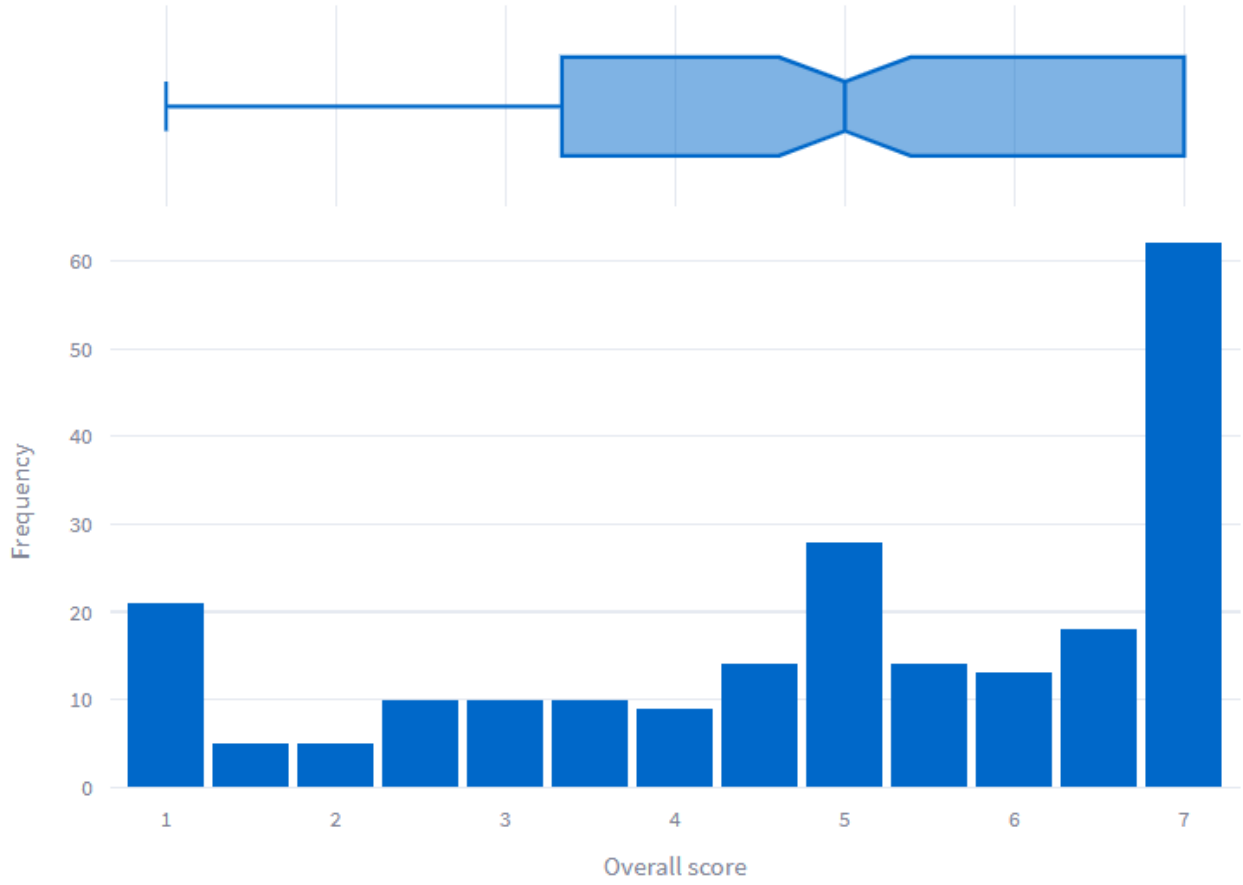
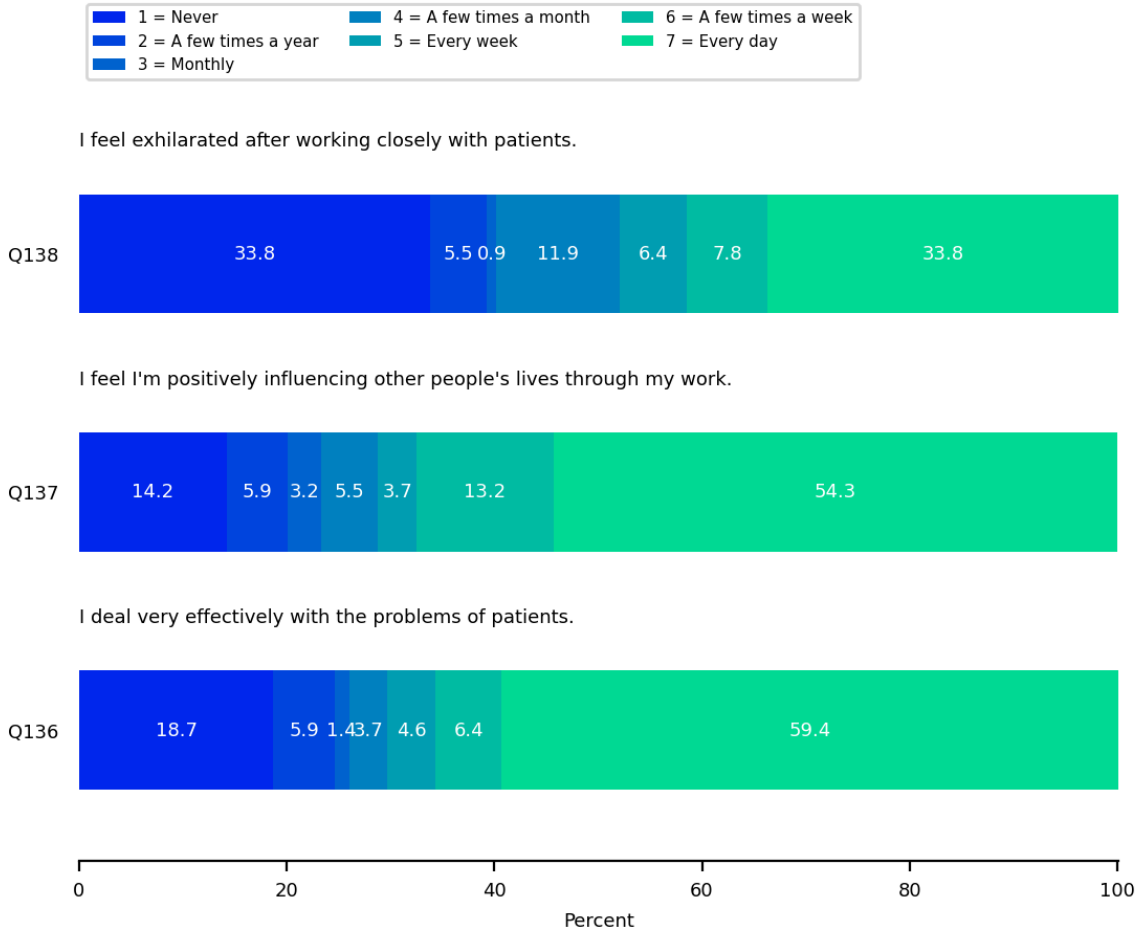


Figure 28B. Risk of Burnout – Personal Accomplishment.



Results: A considerable proportion of respondents admitted to never being able to handle their patients' problems effectively (18.7%), never experiencing the satisfaction of positively impacting someone's life through their work (14.2%), and never feeling invigorated after working closely with their patients (33.8%). The alpha coefficient for the three items is 0.76 (0.70-0.81 CI), indicating that the items possess a relatively high level of internal consistency.