

Health Risk Assessment 2021 Summary Report
Wellness Committee
Norwalk Community College
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Authors

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Executive Summary

This report will provide a summary of outcomes for the seventh Annual Health Risk Assessment (HRA) that was conducted at Norwalk Community College (NCC) during the spring 2022 semester. This year's HRA captured data pertaining to the initial repopulation of campus following COVID-19 related shutdowns from the previous 18 months. During the year, there was a mixture of work settings for our employees that consisted of telework, hybrid (mixture of telework and in-person), and traditional work settings. The primary aims of the HRA were to identify risk factors associated with our employees and to use the outcomes to steer the Wellness Committee (WC) programming regarding campus repopulation in the upcoming academic year.

Funding Information

No funding was provided.

Background and Purpose

The WC is a standing committee at NCC that reports to college governance and administration. This committee has representation of members across multiple departments and divisions of the college, as well as student representation. The 2022 HRA is the seventh consecutive annual survey administered by the WC to measure employee health and identify potential risk factors that can be addressed via our Workplace Wellness Program (WWP). The WC's WWP has three major areas of focus: 1) Health Behavior Modification, 2) Physical Activity Promotion, and 3) Nutrition Education.

Industry standards indicate that annual HRA reporting is an essential function of any WWP and can be used to provide evidence for current and future programming to target the specific needs of the population surveyed. The target population of our campus includes employees, defined as full/part-time faculty/staff, NCC Foundation (NCCF) Members, sub-contracted vendors (i.e., security, cleaning, etc.), and students. The specific questionnaire used for the WC's annual HRA is specifically validated for working adults, which resulted in students not being included in this year's analysis. Although excluded from the HRA, students were not excluded from any WC programming offered virtually or in person.

The **specific aims** of the 2022 HRA were to: 1) identify risk factors and current health conditions of NCC employees, 2) summarize current behaviors associated with physical activity, nutrition, and health promotion, and 3) use findings of this study to steer future programming for the WC.

Implementation and Procedures

Design and Approval

The Chair of the WC appointed an ad hoc sub-committee to manage the administration of the 2022 HRA. The sub-committee determined that the University of Michigan's Health Management Research Center's Health Risk Assessment, which was used for the previous year, would be used again with minor revisions. Revisions included additional options to identify "Gender" and if respondents have received their COVID-19 booster vaccination. Total survey questions remained at 49. A full copy of the 2022 HRA questionnaire is available upon request (pgallo@norwalk.edu).

Procedures

It was determined that the 2022 HRA was exempt from NCC Institutional Review Board approval. The survey was administered on a voluntary basis and all self-reported information was anonymous and kept confidential. Although not necessary, it was recommended that each participant have a copy of their most recent laboratory results to help answer some of the questions. The data collection period was Monday March 28th through Monday April 18th.

Data Analysis

Following data collection, data was aggregated into a spreadsheet that would be used for analysis and generation of descriptive statistics. Only those questions pertaining to health-related components of fitness, diet, nutrition, and lifestyle habits (i.e., stress tolerance) were selected for analysis. These specific questions provide information about risk factors linked to cardiovascular, metabolic, renal, and orthopedic disease, which contribute to increased rates of mortality in the United States. Due to a low number of part time faculty and no part time staff who responded, data was categorized into three groups: 1) fulltime and part time faculty, 2) fulltime staff (including one subcontractor), and 3) total respondents.

Results

Completion Rate

Thirty-three participants completed the 2022 HRA, including 16 faculty (56% fulltime; 44% part time) and 17 fulltime staff. Gender was self-reported as 58% female and 42% male with an average age of 47 (\pm 13) years. This sample represents 5.5% of all college employees according to employment data from the 2020 employment records for NCC. A total of 48% (n=14) of all participants reported completing the 2021 HRA, with 14% unable to recall if they completed the previous year's survey.

Completion Rate in Comparison to 2021

In comparison to the 2021 HRA, there was a 27% (n=9) increase in participants this year. Increases were noted for both total staff (+6 participants) and faculty (+4 participants). There was also an increase in male participants (42% vs. 25%) and a decrease in female participants (58% vs. 71%) when comparing the 2021 HRA to the 2022 HRA. These changes demonstrate a more equal comparison between the faculty and staff groups as compared to previous years.

Participant Demographics

Results from Tables 1 and 2 provide participant characteristics and specifics regarding cardiometabolic risk (blood pressure, body mass index [BMI], waist circumference, height, and weight). All demographic variables are reported as means (\pm SD) for faculty, staff, and the total sample (Table 1). Categorical variables in Table 2 are reported as proportions for self-reported gender and race/origin.

Average systolic blood pressure for all participants was 123/76 mmHg, which is classified as "elevated" or pre-hypertensive according to the American Heart Association's 2018 hypertension guidelines. This finding is consistent with results from the previous two HRA reports. When comparing blood pressure between faculty and staff, there are no differences (Table 1). The percentage of total participants who self-reported currently having, taking medication for, or receiving medical treatment for hypertension totaled 33% (n=11). An additional 11 (33%) of participants indicated that they "did not know" their blood pressure. Similarly, a total of 18 (52%) participants indicated that they "do not know" or "have not had a blood test in the past 5 years" regarding total cholesterol levels, with an additional 5 participants indicating they currently have or are taking medication for hypercholesterolemia. Average BMI (28 kg·m⁻²) for the total sample falls into the upper range of the "overweight" category. When comparing the groups, the average BMI for staff is 31 kg·m⁻² indicating that this group exceeds the clinical threshold for obesity. This finding is consistent with the 2020 HRA results.

Self-Reported Chronic Disease/Conditions Risk

Data was pooled and analyzed as the total participants reporting frequency of chronic diseases/conditions that they “currently have,” “are currently medicated for,” and “are currently under medical care.” In order of highest to lowest frequencies, the results indicate that NCC employees self-reported depression (33%), allergies (30%), back pain (24%), hypercholesterolemia (25%), sleep disorder (21%), thyroid disease (21%), hypertension (18%), and arthritis (15%) as the most chronic diseases/conditions. These findings are very similar to the results of the 2021 HRA Summary Report, with the exception of significant increases in depression, sleep disorder, and thyroid disease.

Anxiety, Depression, and Stress

In comparison to previous HRA findings, anxiety, depression, and stress management continue to be an area of health that impacts our employees at NCC. A total of 48% (n=16) individuals reported feeling tense, anxious, or depressed “often” or “sometimes.” A total of 23 participants (70%) indicated that stress has negatively impacted their health over the past 12 months of employment and 48% (n=16) of the sample indicated that stress has impacted their concentration while at work.

Physical Activity

A total of 67% (n=22) participants reported engaging in aerobic exercise at vigorous intensity at least 3-5 days a week for at least 20 minutes per session, which is aligned with the minimum Physical Activity Recommendations for this intensity zone. For moderate exercise, a total of 33% (n=11) of individuals engage in 5 or more days of moderate intensity for at least 10 minutes in duration. These exercise volumes (intensity · duration) do not meet minimal physical activity recommendations for moderate intensity aerobic exercise and the survey does not allow for determination of maximum amount of time spent in a moderate intensity zone. For resistance training (weightlifting or body weight exercise) 61% (n=20) of participants complete this form of exercise at least 2 days per week, which exceeds the minimum recommendations. There were no differences in physical activity between the faculty and staff groups, although there were more staff (n=4) that reported not engaging in any physical activity when compared to the faculty group (n=1). The results of physical activity for the 2021 HRA indicated that staff was much less active when compared to faculty, which does not align with this year’s results.

Nutrition

A total of 73% (n=24) individuals reported eating 3-4 or 5-6 servings a day of high fiber grains, fruits, and vegetables. This is an increase of ~20% from last year’s HRA. When comparing the faculty to staff group, faculty eat 17% more fiber. When asked about the number of food servings per day containing high amounts of saturated fat or cholesterol, 21% (n=7) of participants indicated that they ingest 3-4 servings per day, which is half the amount reported the year prior. Twenty-two (67%) participants reported eating foods that are higher in sodium, which could correlate with the higher levels of blood pressure seen in this sample.

COVID-19 Vaccination and Pandemic Related Inactivity

A total of 91% (n=30) of all respondents indicated that they have been fully vaccinated and/or boosted for COVID-19, which represents 81% of the faculty group and 100% of the staff group. As expected, the number of vaccinated employees has increased since the previous year’s reports.

Participants indicated that COVID-19 has negatively impacted their physical activity levels in the past year by “a lot” (33%) or “some” (36%). A total of 9% of participants reported “hardly any” decreases in physical activity (21%) or an increase in physical activity (6%) since the start of the pandemic.

Participation in Workplace Wellness Programming (WWP) and reported areas of improvement

Figure 1 indicates the areas of interest that respondents would like to improve on over the course of the next six months. The top two areas of health improvement, in rank order, include increasing physical activity and losing weight. Figure 2 provides an overview of how valuable the WWP is to this sample of participants. A total of 21 participants (64%) indicated that the WWP has value to them, and they are interested in participating in associated programming. The remainder of the respondents stated that although interested in WWP, they are currently unsure (24%) or not interested (12%) in participating in programming at this time.

Discussion

The findings of this report provide a reasonable sample of NCC employees to infer common chronic conditions and risk factors associated with the larger employee population on campus. It also provides perspective on behaviors associated with health, physical activity, diet, and mental health, while providing insight for future programming over the upcoming academic year.

The chief chronic conditions that are currently being managed by our employees include depression, allergies, back pain, arthritis, sleep disorder, thyroid disease, hypertension, hypercholesterolemia, and overweightness. The results of the survey demonstrate that this group of individuals meet the physical activity guidelines for vigorous aerobic exercise and resistance training. On the contrary, this group does not meet the recommendations for moderate intensity aerobic exercise. Although not significantly different, the staff group does report higher sedentarism and rates of obesity when compared to the faculty group. As NCC continues with their campus repopulation, COVID-19 continues to negatively impact our employees by reducing total physical activity time per week. This year's HRA demonstrated that higher amounts of fiber and lower amounts of fatty foods are being consumed on average with no difference between the faculty and staff groups. Although this sample is classified as having "elevated" blood pressure, daily intake of sodium is above general recommendations and efforts to reduce sodium intake are recommended.

Consistent with previous HRAs, anxiety, depression and stress continue to negatively impact our employee population, which may reduce the ability to concentrate while on the job. There also seems to be sleep disturbances associated with this year's sample, which is a novel finding. Sleep is strongly linked correlated with stress, anxiety and depression and it is possible that both these factors are inter-related with our employee population. COVID-19 related sequela is a mental health concern that employees continue to manage and deal with as our campus repopulation is not fully completed and the rise of new variants add additional stress to the everyday work routine.

As demonstrated in Figures 1 and 2, our employee population is contemplating areas of improvement for their health and wellbeing and do find the WWP to be of value to them. Although the results of this survey mirror epidemiologic data nationally with regard to prevalence and occurrence of chronic diseases and conditions, these results should be carefully considered due to a smaller sample size.

In conclusion, the findings of this HRA demonstrate a need for and the importance of sustainable WWP to assist with the health and wellbeing of working adults. Well-rounded programming is essential and should continue to focus on the three major areas of our workplace wellness programming, which includes 1) Health Promotion, 2) Physical Activity, and 3) Nutrition. A summary of future programming is listed in the next session.

Summary of Future Programming

The findings of this summary report suggest that the NCC Wellness Committee should focus on the following areas for the 2022-2023 academic year:

1. Stress, anxiety, and depression programming and promotion of established services and resources for mental health counseling.
2. Seminars, screenings, and workshops to address the management of hypertension, hypercholesterolemia, back pain, allergies, arthritis, sleep disorders, and thyroid disease.
3. Programming for weight management and improved physical activity.
4. Focus programming on reduction of sodium for dietary intake and when preparing meals. Include programming to help promote higher fiber intake and lower fat ingestion.

Furthermore, future programming should align the findings of this report with the areas of interest for programming as determined by the 2022 WC Interest Survey.

Acknowledgments

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Justin Davis, Director of Culinary Arts, Wellness Committee Chair

Mary Jo McGonagle, Instructor, P-Tech Norwalk, Wellness Committee Chair-Elect

Cathy Hara, Program Assistant, Nursing and Allied Health

John Lupulio, Information Technology Technician 1

References

Available upon request.

Table 1: Participant Characteristics

Faculty	Participants (n)	Age (years)	Weight (pounds)	Height (inches)	BMI (kg·m⁻²)	Waist Circumference (inches)	Systolic Blood Pressure (mmHg)	Diastolic Blood Pressure (mmHg)
Total Faculty	16	52 (±14)	167 (±8)	66 (±3)	26 (±5)	32 (±5)	122 (±7)	76 (±6)
Total Staff	17	44 (±11)	168 (±10)	66 (±4)	31 (±6)	34 (±5)	124 (±9)	75 (±14)
Total Participants	33	47 (±13)	167 (±9)	66 (±4)	28 (±6)	33 (±5)	123 (±8)	76 (±10)

Reported as mean averages (±standard deviation).

Table 2: Categorical data for Participant Demographics

Faculty (n=16)	Variable	Participants (n)	Percentage (%)
Gender	Female	10	63%
	Male	6	37%
Race/origin	Black	1	6%
	Hispanic	4	25%
	White	7	44%
	Prefer not to Answer	4	25%
Staff (n=17)			
Gender	Female	9	53%
	Male	8	47%
Race/origin	Black	3	17%
	Hispanic	1	6%
	White	12	71%
	Prefer not to Answer	1	6%
Total (n=33)			
Gender	Female	19	58%
	Male	14	42%
Race/origin	Black	4	12%
	Hispanic	5	15%
	White	19	58%
	Prefer not to Answer	5	15%

Figure 1: In the next 6 months, are you planning to make any changes to keep yourself healthy or improve your health?

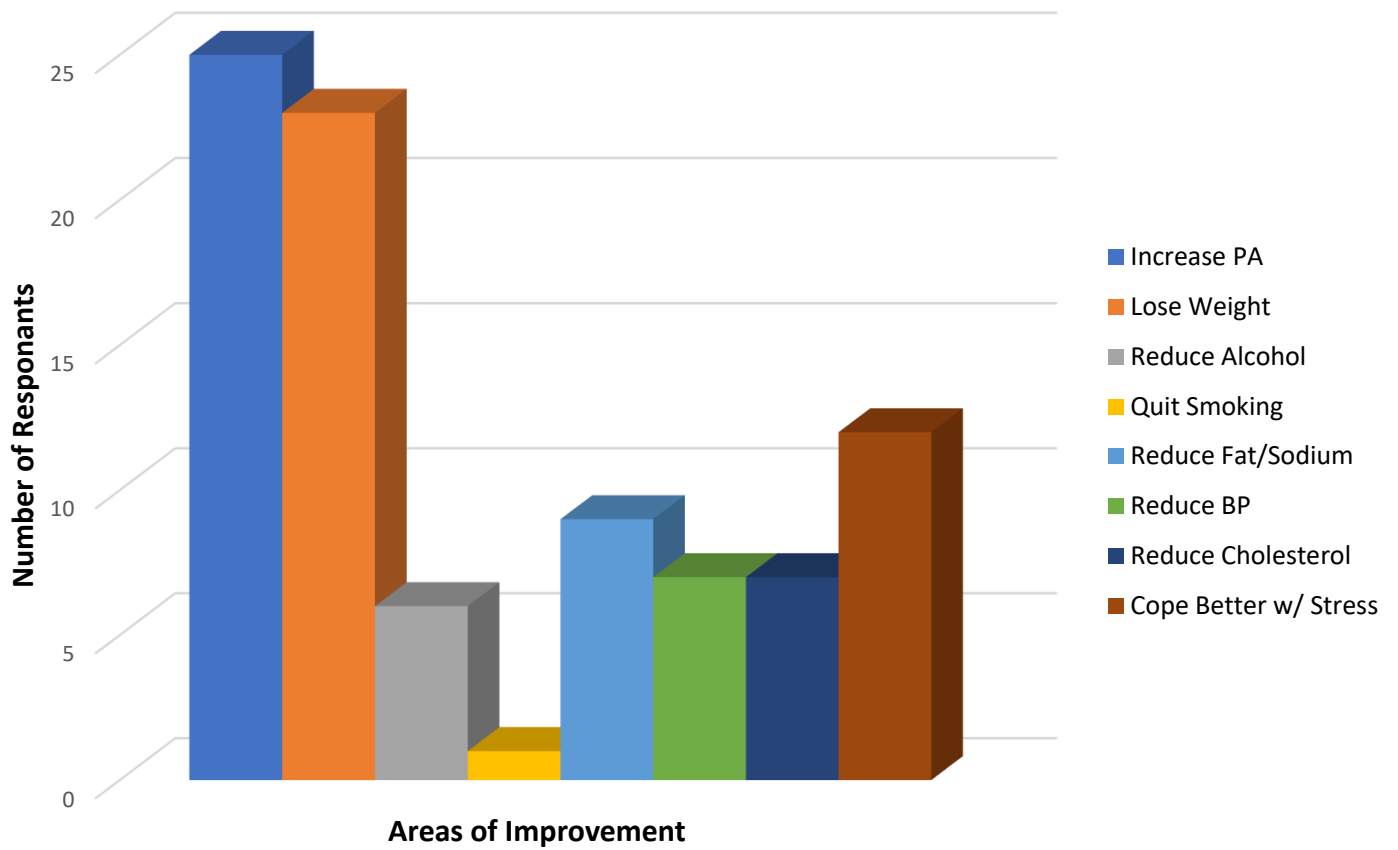


Figure 2: In the next 6 months, would you participate in a program that would help you enhance your overall health?

