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Monica L. Clouse, MPH¹, David Mannino, MD¹, and Philip R. Curd, MD, MSPH¹

Abstract

In 2006, a comprehensive wellness intervention, titled Wellness Works, was implemented in an incarcerated male population at a 200-bed facility in LaGrange, Kentucky. The purpose of this study was to determine health risk factors and benefits of program participation by analyzing data from a pre-/post-participation health risk assessment (HRA). In total, 448 inmates completed the pre- HRA and 177 (40%) completed the post- HRA. Among program completers, two of the six measured domains (smoking and depression) showed significant improvement at the post- HRA while the other domains (exercise, nutrition, stress, and dental hygiene) did not show significant changes. Overall, this study shows positive signs of improving the health of the incarcerated population with this wellness program, but also points to the need for a controlled study.

Keywords

prison-based wellness program, correctional health care, health risk assessment, substance abuse program

The number of inmates in the United States has increased dramatically in recent years (Centers for Disease Control and Prevention [CDC], 2001; Freudenberg, 2001). This growing prison population is disproportionately minority (Freudenberg, 2001; Sadler, Huff, & Harrigan, 2000) and is well recognized as having a higher prevalence of various health problems, such as substance abuse, infectious disease, mental health problems, chronic disease, and reproductive and sexual health problems, as compared to the general population (Freudenberg, 2001). High-risk health behaviors, lack of access to continuous medical care, lower educational levels, and low socioeconomic status before

¹ Department of Preventive Medicine and Environmental Health, University of Kentucky, Lexington, KY, USA

Corresponding Author:

Monica L. Clouse, MPH, Kentucky Department for Public Health, Cabinet for Health and Family Services, 275 E. Main St., HS2W-A, Frankfort, KY 40621, USA
Email: monica.clouse@ky.gov

incarceration contribute to this higher prevalence of disease among inmates (Curd, Winter, & Connell, 2007). In addition, the U.S. prison population is aging due to the aging of the general population and longer prison sentences, which increases the occurrence of costly chronic health conditions (Baillargeon, Black, Pulvino, & Dunn, 2000).

Chronic diseases are among the most prevalent, costly, and preventable of all health problems in the United States. More than 1.7 million people die each year due to chronic disease, and the medical cost of care for chronic diseases accounts for more than 75% of all medical expenditures in the United States (CDC, n.d.b). Mokdad, Marks, Stroup, and Gerberding (2004) estimated that three modifiable risk factors (physical inactivity, poor diet, and tobacco use) accounted for 35% of all deaths in the United States during 2000.

Health promotion involves issues related to individual lifestyle and the environment in which potential changes can be enforced (Sadler et al., 2000). Addressing health issues among inmates has the potential to meet individual needs as well as those of the community (Freudenberg, 2001; Sadler et al., 2000). Hammett (2001) sought to prove that correctional facilities are important settings for intervention because they allow for a population with a disproportionate burden of disease and a disproportionate effect of health risk behaviors to be efficiently reached. In addition, health interventions that target such vulnerable populations can benefit overall public health and save taxpayers money. Therefore, effective health interventions that target this underserved population are needed to reduce the disproportionate burden of disease in the prison population.

A comprehensive wellness intervention, titled Wellness Works, was developed and implemented in a male, adult, residential (200 bed), nonmedical, minimum security, behavioral substance abuse program (SAP) in LaGrange, Kentucky (Curd et al., 2007). The program, known as Roederer Therapeutic Community (RTC), is one of seven residential SAPs operated by the Kentucky Department of Corrections. RTC is the only corrections-associated SAP in which both prisoners and parolees reside in a single community. RTC is a 6-month program structured around five phases (orientation, freshman, sophomore, junior, and senior, with approximately 30 residents in each phase) that aims to furnish residents with information and programs that provide new methods of thinking and behaving (Curd et al., 2007).

Wellness Works was guided by a participatory model based on the PRECEDE/PROCEED planning model and the community-based participatory research concept, as well as several successful participatory work site wellness initiatives (Curd et al., 2007). This wellness program was based on the premise that one's responsibility for his health (and that of his family) is an appropriate concern for a recovering substance abuser and that taking action to improve health may reinforce the recovery process. The primary outcome of Wellness Works was to decrease disease risk factors among residents of the RTC (Curd et al., 2007).

The primary aim of this study was to evaluate pre- and post- health risk assessment (HRA) data collected from RTC residents to determine if Wellness Works might have been effective in reducing health risk factors in a community of residents of a correctional SAP. Secondary aims for this study were to determine what characteristics predicted completion of the program (as determined by completion of the follow-up questionnaire) and how baseline risk factors varied by inmate characteristics (such as length of incarceration or social ties).

Methodology

This study analyzes data from Wellness Works program participants who completed a pre- or post-HRA (actual assessment presented in Appendix A); the design and rationale for this comprehensive wellness intervention are reported elsewhere (Curd et al., 2007). Data were collected from all men as they entered the program and from each group of men just before completing the program 6 months later. The first baseline (pre-) HRA was administered at the end of January 2006 to almost all men in

the program at that time and the first post- HRA was administered May 23, 2006. The last baseline HRA was administered August 20, 2007, and the last post- HRA was administered January 2, 2008 (Curd et al., 2007). Of the 448 consenting individuals who completed the baseline HRA, 177 (39.5%) completed the follow-up HRA. To be included in the analysis, the participants must have completed both the pre- and post- HRAs.

This HRA was developed by the academic partners involved in the implementation of Wellness Works and was based on examples from other surveys, including the nationally coordinated Behavioral Risk Factor Surveillance Survey (BRFSS; CDC, n.d.a). The HRA serves two main purposes: (a) to help RTC residents identify areas in their life where they can improve their health and longevity and (b) to help the wellness committee understand how the wellness program can be better adapted to the needs of the residents. In addition, the HRA provides comparable data on prevalent risk factors in the program community.

Baseline HRA data reported demographic information such as age, race, inmate or parolee status, length of incarceration, and social ties. Exercise status, nutrition, stress, depression, and smoking status were rated as healthy, moderate risk, or high risk depending on how the participants responded to the questions. The way in which these health indicators were categorized as healthy, moderate health risk, or high health risk is presented in Table 1.

In addition, a series of health-related questions pertaining to physical health, mental health, activity limitation, amount of energy, and amount of rest were part of the initial and final assessment. These questions were similar to the ones used in the BRFSS and included the following:

- *Physical health.* Thinking about your physical health, which includes physical illness and injury, for how many days during the past 30 days was your physical health NOT good?
- *Mental health.* Thinking about your mental health, which includes stress, depression, and problems with emotions, for how many days during the past 30 days was your mental health NOT good?
- *Activity limitation.* If you have had any days during the past 30 days when your health was NOT good, how many days did lack of good health keep you from doing your usual activities, such as self-care, work, or recreation?
- *Energy.* During the past 30 days, for about how many days have you felt very healthy and full of energy?
- *Rest.* During the past 30 days, for about how many days have you felt you did NOT get enough rest or sleep?

The improvements in these measures were determined by subtracting the post- HRA from the pre-HRA, except for the energy measure, in which improvement was determined by subtracting the pre-HRA from the post- HRA due to the positive nature of the question. Altogether, these specific health indicators and questions provided a great deal of information pertaining to the overall health and health risk characteristics of the participants prior to the wellness intervention and after completion of the program.

SAS software Version 9.1 was used to perform all statistical analyses. Descriptive statistical analyses included *t* tests and chi-square tests to measure the statistical significance of the independent variables. Multivariate relationships were investigated using linear and logistic regression models. Logistic regression analysis was conducted to determine factors associated with completion of both pre- and post- HRAs, while adjusting for age, length of incarceration, race, strength of social ties, smoking status, and access to health care. Logistic regression analysis was also conducted to determine factors associated with the probability of excellent/very good health given the covariates (age, length of incarceration, race, strength of social ties, smoking status, and access to health care). Multiple linear regression analyses were conducted to determine if the change (pre- minus

Table 1. Categorization of Health Risk Assessment Health Indicators Into Healthy, Moderate Risk, and High Risk

	Healthy	Moderate Risk	High Risk
Exercise Other than work assignments, how often do you participate in moderate physical activities (such as running, calisthenics, gardening, or walking) for at least 30 minutes per day, or vigorous activity for at least 20 minutes per day?	4 or more days per week	2–3 days per week	Less than 2 days a week
Nutrition The best description of what I usually eat is . . .	At least 5 servings/day of vegetables and fruits. Most carbs are from high fiber, whole grain; no-fat dairy; lean meats; rarely eat fried foods	3–4 servings/day of vegetables and fruits. Some carbs are from fiber and whole grain; low-fat dairy; some fried foods	Less than 3 servings/day of vegetables and fruits. White bread and few whole grain foods, high-fat dairy and meats; much fried foods
Stress How well do you feel you are coping with your current stress load?	Very well	Have trouble coping at times	Often have trouble coping
Depression During the past 30 days, for about how many days have you felt sad, blue, or depressed?	0–3 days	4–15 days	More than 15 days
Smoking Do you smoke cigarettes every day, some days, or not at all?	Not at all	Some days	Every day

post-) in multiple health risk factors (exercise, nutrition, stress, depression, smoking status, and dental hygiene) were significantly different from zero.

Results

Of the 448 respondents who completed the pre- HRA, 177 (39.5%) completed the post- HRA. The mean age of the participants who completed both HRAs was 34.8 (± 8.7) years, while the mean age of those who completed only the pre- HRA was 33.7 (± 8.4) years. More than 80% of the individuals who completed both assessments had been incarcerated longer than 1 year. In addition, 67.5% of participants completing both assessments smoked every day and 49.7% had problems accessing

Table 2. Representation of Participants Who Completed Both the Pre- and the Post- HRA

	Completed Initial HRA N = 448	Completed Both HRAs N = 177	Percentage Completing Both HRAs by Characteristics
Mean Age	33.7 (± 8.4)	34.8 (± 8.7)	
Length of incarceration ^a			
< 1 year	53 (11.8%)	25 (14.1%)	47.2
1–3 years	258 (57.6%)	90 (50.9%)	34.9
> 3 years	125 (27.9%)	56 (31.6%)	44.8
Race			
White	295 (65.9%)	107 (60.5%)	36.3
Non-White	153 (34.2%)	70 (39.6%)	45.8
Social ties			
Strong	244 (54.5%)	98 (55.4%)	40.2
Average	159 (35.5%)	64 (36.2%)	40.3
Weak	45 (10.0%)	15 (8.5%)	33.3
Smoking status ^a			
Never smoke	104 (25.1%)	39 (23.5%)	37.5
Smoke sometimes	41 (9.9%)	15 (9.0%)	36.6
Smoke every day	270 (65.1%)	112 (67.5%)	41.5
Access to health care ^a			
No problem accessing care	219 (48.9%)	85 (48.0%)	38.8
Problem accessing care	223 (49.8%)	88 (49.7%)	39.5

Note. This table presents the frequency of characteristics by participants who only completed an HRA when first enrolled in the wellness program and by participants who also completed an HRA at program completion. The percentages by characteristics of the participants who completed both HRAs compared to those who only completed the pre- HRA are shown in the last column.

^a Due to missing responses, values may not add to total.

health care due to cost 12 months prior to incarceration. Study respondents were predominately White (Table 2).

Table 3 reveals the odds ratios (ORs) and 95% confidence intervals (CIs) for the probability of completing the post- HRA compared to those who just completed the pre- HRA. Age was found to be significantly associated with completion of the wellness program, while adjusting for all other variables in the model (1.03; CI [1.004, 1.05]). Length of incarceration, race, strength of social ties, smoking status, and access to health care were not found to be significantly associated with completion of the wellness program.

The number of baseline HRA respondents who reported their general health status as being excellent or very good was 178 (39.7%), while 272 (60.7%) reported their general health as being good, fair, or poor. Perceptions of general health as good, fair, or poor was reported by 48.2% of the non-White participants, as well as 73.3% of those individuals who indicated having weak social ties, 64.4% of those who reported smoking every day, and 68.3% of those who indicated problems accessing health care 12 months prior to incarceration. Length of incarceration, race, social ties, smoking status, and access to health care were all found to be statistically significant for general health status (Table 4).

Table 5 reveals the ORs and 95% CIs for the probability of experiencing excellent or very good health, controlling for the covariates in the model. Respondents of older age were at a decreased odds of reporting excellent or very good health compared to those who were younger (0.97; CI [0.9, 0.99]). Non-White respondents were at an increased odds of reporting excellent or very good health compared to those who were White (1.6; CI [1.01, 2.5]). Respondents who smoked every day

Table 3. Logistic Regression Model Determining Factors Associated With Completing Both Pre- and Post-Health Risk Assessments

Independent Variables	Completion of Program OR [95% CI] ^a
Age (years)	1.03 [1.004, 1.05] ^b
Length of incarceration	
< 1 year	1.3 [0.6, 2.6]
1–3 years	0.7 [0.4, 1.1]
> 3 years	Reference
Race	
Non-White	1.4 [0.9, 2.1]
White	Reference
Social ties	
Strong	1.2 [0.6, 2.6]
Average	1.3 [0.6, 2.8]
Weak	Reference
Smoking status	
Smoke every day (high risk)	1.2 [0.8, 2.0]
Smoke some days (moderate risk)	0.99 [0.5, 2.2]
Never smoke (healthy)	Reference
Access to health care	
No problem accessing care	1.1 [0.7, 1.7]
Problem accessing care	Reference
Max-rescaled R ²	.053

Note. Models are adjusted for age, length of incarceration, race, strength of social ties, smoking status, and access to health care.

^a Adjusted for other variables in the model. ^b Statistically significant ($p < .05$).

Table 4. Characteristics of Baseline HRA Respondents by General Health Status

	Excellent/Very Good Health N = 178	Good/Fair/Poor Health N = 272	p
Mean age ^a	32.5 (± 8.1)	34.2 (± 8.6)	
Length of incarceration ^a			< .0001
< 1 year	20 (37.7%)	33 (62.3%)	
1–3 years	109 (42.3%)	149 (57.8%)	
> 3 years	43 (34.1%)	83 (65.9%)	
Race ^a			< .0001
White	106 (32.2%)	190 (57.8%)	
Non-White	72 (42.4%)	82 (48.2%)	
Social ties ^a			< .0001
Strong	109 (44.3%)	137 (55.7%)	
Average	57 (35.9%)	102 (64.2%)	
Weak	12 (26.7%)	33 (73.3%)	
Smoking status ^a			< .0001
Never smoke	53 (50.0%)	53 (50.0%)	
Smoke sometimes	18 (43.9%)	23 (56.1%)	
Smoke every day	96 (35.6%)	174 (64.4%)	
Access to health care ^a			< .0001
No problem accessing care	106 (48.2%)	114 (51.8%)	
Problem accessing care	71 (31.7%)	153 (68.3%)	

^a There are 52 missing responses for all variables in Table 4.

Table 5. Logistic Regression Model Determining Factors Associated With Excellent/Very Good Health Status

Independent Variables	Excellent/Very Good Health OR [95% CI] ^a
Age (years)	0.97 [0.9, 0.99] ^b
Length of incarceration	
< 1 year	0.7 [0.3, 1.5]
1–3 years	1.4 [0.9, 2.3]
> 3 years	Reference
Race	
Non-White	1.6 [1.01, 2.5] ^b
White	Reference
Social ties	
Strong	1.9 [0.9, 4.1]
Average	1.4 [0.6, 3.1]
Weak	Reference
Smoker status	
Smoke every day (high risk)	0.6 [0.3, 0.9] ^b
Smoke some days (moderate risk)	0.9 [0.4, 1.9]
Never smoke (healthy)	Reference
Access to health care	
No problem accessing care	1.9 [1.2, 2.9] ^b
Problem accessing care	Reference
Max-rescaled R^2	.12

Note. Models are adjusted for age, length of incarceration, race, strength of social ties, smoking status, and access to health care.

^a Adjusted for other variables in the model. ^b Statistically significant ($p < .05$).

Table 6. Multivariable Model Results for Selected Health Factor Differences

Dependent (y) Variables	Intercept Estimate [95% CI]	p	R^2
Exercise difference	−0.9 [−1.9, 0.1]	.09	.08
Nutrition difference	−0.4 [−1.1, 0.34]	.30	.10
Stress difference	0.8 [−0.04, 1.6]	.05	.09
Depression difference ^a	1.4 [0.6, 2.18]	< .01	.24
Smoking difference ^a	1.3 [0.4, 2.16]	< .01	.12
Dental difference	0.3 [−0.64, 1.2]	.50	.04

Note. Depicts the y-intercept estimate of the change (pre- minus post-) of various health risk factors while controlling for age, length of incarceration, race, strength of social ties, smoking status, and access to health care.

^aStatistically significant ($p < .05$).

had 40% (0.6; CI [0.3, 0.9]) lower odds of indicating excellent or very good health compared to those who never smoked. The odds in favor of experiencing excellent or good health for respondents who indicated having no problem accessing health care because of cost 12 months prior to incarceration was 1.9 (CI [1.2, 2.9]) times that of individuals who reported problems accessing care. Although not statistically significant, respondents who perceived their social ties as strong were at an increased odds of reporting excellent or very good health compared to those who perceived their social ties as weak (1.9; CI [0.9, 4.1]).

Table 6 represents the intercept estimates from the multiple linear regression analyses for the changes from pre- to post- HRA for exercise status, nutrition, stress, depression, smoking status, and dental hygiene, while adjusting for the covariates of age, length of incarceration, race, strength of social ties, smoking status, and access to health care. The y-intercepts that were found to be

Figure 1. Overall effect of Wellness Works based on selected health risk assessment health factors ($N = 155$). This depicts the number of inmates who reported an improvement, worsening, or no change in their reported health risk factors before and after the wellness program. Only smoking status and depression were statistically significant.

statistically different from zero included depression difference (1.4; CI [0.6, 2.18]; $p = .0005$) and smoking difference (1.3; CI [0.4, 2.16]; $p = .005$).

The number of inmates who reported an improvement, worsening, or no change for specific health risk factors after the intervention is presented in Figure 1. The only health risk factors found to be statistically significant at $p < .05$ were depression and smoking status.

Figure 2 represents the mean change in days of the pre- minus the post- HRA for various health risk factors. The average number of days (in the past 30 days) of experiencing poor physical health was found to improve significantly by nearly 2 days. Respondents experienced, on average, 2 fewer days of poor physical health. The other health factors (energy, mental health, disability, and rest) revealed some improvement but were not significant.

Discussion

The inmate characteristics and health risk factors of RTC residents based on an HRA given before and after completion of a wellness program were examined to determine if there were any associations between completing the intervention and changes in HRA responses. In addition, HRA data were used to assess which inmate characteristics contributed to completion of the 6-month wellness program.

Being of an older age was significantly associated with completion of the wellness program. The inmate characteristics of length of incarceration, race, strength of social ties, smoking status, and access to health care were not significantly associated with completion of the program. These results provide evidence that inmate characteristics did not differ between those who were enrolled in Wellness Works and those who completed the follow-up assessment. This suggests that inmates who completed the program were not dramatically different (at least with regard to these measures) from those who started the program. They may have, however, differed with regard to unmeasured factors, such as individual behaviors, beliefs, and upbringing.

Figure 2. The unadjusted mean change (pre- minus post-) of selected health factors. This depicts the difference between the number of days of feeling full of energy, experiencing poor physical health, experiencing poor mental health, experiencing daily activity limitations, and not getting enough rest after the intervention as compared to before the intervention. Energy is displayed as post- minus pre- due to the positive nature of the question, where a higher number of days represented a better outcome. Horizontal bars represent unadjusted mean change in number of days and vertical bars represent 95% confidence limits.

Additionally, respondents who were younger, non-White, never smoked, and had no problems accessing health care 12 months prior to incarceration had greater odds of reporting very good or excellent health compared to respondents who were older, White, smoked every day, and had problems accessing health care, respectively. With the exception of race, which may be interrelated with rural/urban residency in this sample, these results were anticipated. Several studies reveal that young age, never smoking (Toh et al., 2006), having access to health care, and higher socioeconomic status (Osler et al., 2009) are indicators of better health (Adams, Dey, & Vickerie, 2007). Access to health care, in this study, may also be an indicator of socioeconomic status. The inmate characteristics of length of incarceration and strength of social ties were not significantly associated with participants reporting very good or excellent health.

The wellness program showed some evidence of reducing depression and smoking for individuals who completed the entire program. These improvements may be a result of participants realizing (due to the intervention) how much room they had for improvement in these modifiable health risk behaviors. However, improvements in exercise and nutrition were not evident. These results may be attributable to environmental factors associated with correctional facilities. Diet and exercise may be difficult health factors to alter in prison systems due to strict rules and regulations. It may be that inmate wellness programs and interventions are beneficial for improving health behaviors through education but institutional policy changes are needed to improve environmental health factors of correctional facilities.

The wellness intervention was associated with an increase in perceived number of days of feeling full of energy and a decrease in the perceived number of days of experiencing poor physical health, poor mental health, daily activity limitations, and not getting enough rest. However, the only significant change found among these health factors was that of poor physical health.

This study has several important limitations. The most important one relates to the lack of a control population that would have taken the HRA twice, with no exposure to the intervention. In general, inmates receive more and better health care while in prison than they did prior to incarceration. Therefore, longer duration in prison (and longer duration of health care) may account for inmates perceiving their health as excellent or good. The incarceration environment is relatively controlled

with regard to nutrition, exercise, and smoking, which makes it difficult to assess such factors. Furthermore, drug accessibility and use is highly limited in prison. This reduction in drug use may account for a decrease in perceived depression. It is difficult to conclude, without the use of a control population, whether the findings of this study are a result of the wellness intervention or the change in environment from not incarcerated to incarcerated.

A second key limitation relates to our measure of program “completion,” which consisted of participants doing a follow-up survey. It is possible that some finished the program without doing the second survey and that some did the second survey with minimal involvement in the program.

Another study limitation is the presence of bias due to self-reporting measures and that various health risk factors (i.e., smoking status, stress, depression, etc.) were not independently validated. Additionally, recall bias may limit the study results because self-reported data are subject to problems associated with accurate memory recall and limitations of knowing how truthful respondents were. Healthy participant bias may also be a factor. Healthier individuals and those who are concerned about their health may be more likely to participate in health/wellness programs and thus are probably more likely to complete the programs. This type of selection bias may limit the external validity of the study because the participation group may not be representative of the source population. That is, those who completed the program may have been more cooperative than those who did not.

Furthermore, RTC went smoke-free in the summer of 2007. This change in the smoking policy during the intervention may alter some of the findings, but we did not have data available to identify study subjects who completed the program totally before or totally after this policy change. Finally, when dealing with the incarcerated population, the Hawthorne Effect (behavior or performance change following any new or increased attention) may play a major role in how these individuals interact with researchers and respond to questions.

The HRA was based in large part on questions available from the BRFSS but has not been independently validated in incarcerated populations, which may present unique challenges for population-based surveys. In addition, our characterization of health risks (Table 1), while reasonable, has not been independently validated. It is hoped that the study design used to interpret these findings, looking at the change from one survey to the next, would diminish any major bias in these instruments as each person would serve as his own control.

The reliability or repeatability of the HRA to yield similar results is a bit more challenging since this was a preliminary study. Wellness programs are rare in correctional settings and not much is known about their effectiveness across different settings (Curd et al., 2007). Therefore, more rigorous data collection and repeating this study with a control population will provide better insight on the reliability of the HRA.

Conclusions

Overall, the results of this study show positive signs of improving the health of the incarcerated population. However, some of the results are not clear-cut and many additional factors, in particular, the lack of a control population, should be taken into consideration when interpreting the findings. Nevertheless, this study provides some preliminary evidence that inmate wellness programs and/or intervention may be beneficial in improving specific inmate health factors.

Appendix A

Health Risk Assessment for Roederer Therapeutic Community

Instructions

This health risk assessment is an educational tool that is part of the Wellness Program of Roederer Therapeutic Community—*Wellness Works*. It serves two purposes.

- Help you identify areas in your life where you can improve your health and your chances of having a longer life
- Help the Wellness Committee understand how the Wellness Program can be better adapted to the needs of the residents of the Community

Please read every question in this health risk assessment carefully. To each question provide the answer that is most accurate. Your answers will be held in strict confidence as a part of your Department of Corrections medical record. Answers that identify you as an individual will not be shared with program staff or corrections staff.

Once you have completed this assessment, you will be given suggestions on how you can maintain or improve your health.

About You

Name _____	Number _____
Today's date _____	Your birth date _____

1. Gender (Check one)
☐ Male ☐ Female
2. Are you . . . ? (Check one)
☐ An inmate
☐ A parolee (1/2 Way Back)

3. If a parolee, when were you last incarcerated? (Check one)
☐ Within the last 6 months
☐ More than 6 months ago
☐ Not Applicable
4. Over the last 5 years, you have been incarcerated a total of how many years? (Check one)
☐ Less than 1 year
☐ 1-3 years
☐ More than 3 years

5. Are you either Hispanic or Latino? (Check one)
☐ Yes
☐ No

6. Which one of the following groups best represents your race? (Check one)
☐ White
☐ American Indian
☐ Asian
☐ Other
- ☐ Black/African American
☐ Native Hawaiian/Pacific Islander
☐ Alaska Native

7. In general, how good is your health? (Check one)
☐ Excellent ☐ Very good ☐ Good ☐ Fair ☐ Poor

8. How strong are your social ties with family/friends? (Check one)
☐ Strong ☐ Average ☐ Weak

Modifiable Lifestyles

In response to the questions on the left side of this page, put a check over the one statement in the column on the right that most closely describes your activities or feelings.

	Healthy	Moderate Risk	High Risk
Exercise. Other than work assignments, how often do you participate in moderate physical activities (such as running, calisthenics, gardening, or walking) for at least 30 minutes per day, <u>or</u> vigorous activity for at least 20 minutes per day?	4 or more days per week	2–3 days per week	Less than 2 days a week
Nutrition. The best description of what I usually eat is . . .	At least 5 servings/day of vegetables and fruits. Most carbs are from high fiber, whole grain; no-fat dairy; lean meats; rarely eat fried foods	3–4 servings/day of vegetables and fruits. Some carbs are from fiber and whole grain; low-fat dairy; some fried foods	Less than 3 servings/day of vegetables and fruits. White bread and few whole grain foods, high-fat dairy and meats; much fried foods
Stress. How well do you feel you are coping with your current stress load?	Very well	Have trouble coping at times	Often have trouble coping
Depression. During the past 30 days, for about how many days have you felt sad, blue, or depressed?	0–3	4–15	More than 15
Smoking. Do you smoke cigarettes every day, some days, or not at all?	Not at all	Some days	Every day
Stopping smoking. During the past 12 months . . .	I have not smoked cigarettes at all	I have smoked but have quit for more than one day	I have smoked every day
Sexual intercourse. With how many people did you have sexual intercourse in the 12 months before you were incarcerated?	0–1	2–3	More than 3
Seat belt. When not incarcerated, I use a seat belt while riding in a vehicle . . .	Almost all the time	Some of the time	Never
Dental. How long has it been since you had your teeth cleaned by a dentist or dental hygienist?	Within the past year (any time less than 12 months ago)	Within the past 2 years (1 year, but less than 2 years ago)	More than 2 years ago

Other Health-Related Questions

	Put your response to each question in this column ↓
1. During the past 30 days, for about how many days have you felt very healthy and full of energy? (If none, write in "0")	Number of days_____
2. Thinking about your physical health, which includes physical illness and injury, for how many days during the past 30 days was your physical health not good? (If none, write in "0")	Number of days_____
3. Thinking about your mental health, which includes stress, depression, and problems with emotions, for how many days during the past 30 days was your mental health not good? (If none, write "0")	Number of days_____
4. If you have had any days during the past 30 days when your health was not good, how many days did lack of good health keep you from doing your usual activities, such as self-care, work, or recreation? (If none, write in "0", or check Not Applicable)	Number of days_____ ☐ Not Applicable
5. During the past 30 days, for about how many days have you felt you did not get enough rest or sleep? (If none, write in "0")	Number of days_____
6. Have you smoked at least 100 cigarettes (5 packs) in your entire life? (Check one)	☐ Yes ☐ No
7. Do you currently smoke any tobacco products other than cigarettes, such as cigars or pipes? (Check one)	☐ Yes ☐ No
8. Do you currently use chewing tobacco and/or snuff? (Check one)	☐ Every day ☐ Some days ☐ Not at all
9. Was a condom used the last time you had sexual intercourse? (Check one)	☐ Yes ☐ No ☐ Unsure ☐ Not Applicable
10. For the last 12 months that you were not incarcerated, how many new sex partners (sex for the first time with that person) did you have? (Check the box that represents your best estimate.)	☐ Only 1 ☐ 2-5 ☐ More than 5 ☐ None
11. Do you have any kind of health care coverage, including health insurance, prepaid plans (such as HMOs) or government plans such as Medicare, Medicaid, or Veterans health care? (Check one)	☐ Yes ☐ No ☐ Unsure
12. When not incarcerated, do you have one or more persons who you think of as your personal doctor(s) or health care provider(s)? (Check one)	☐ Yes (only one person) ☐ Yes (more than one person) ☐ No ☐ Unsure
13. For the last 12 months that you were not incarcerated, was there a time when you wanted to see a doctor, but could not because of cost? (Check one)	☐ Yes ☐ No ☐ Unsure
14. Comments (You may write here any comments you have about <i>Wellness Works</i> or this questionnaire):	

Declaration of Conflicting Interests

The authors disclosed no conflicts of interest with respect to the authorship and/or publication of this article. For information about *JCHC*'s disclosure policy, please see the Self-Study Exam.

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