



Behavioral Health &  
Wellness Program

University of Colorado Anschutz Medical Campus  
School of Medicine

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# DIMENSIONS: Well Body Toolkit for Healthcare Providers

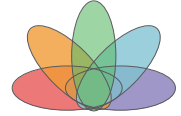
SUPPLEMENT

Priority Populations: Justice Involved



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The DIMENSIONS: Well Body Toolkit for Healthcare Providers Supplement,  
Priority Populations: Justice Involved was developed by the University of Colorado  
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## Why Focus on the Justice Involved Population?

The United States has more inmates per capita than any other nation in the world. In 2013, about 1 in 35 adult residents of the U.S. were on probation, parole, or incarcerated.<sup>1</sup>

The justice involved population has poorer overall health than the general population. For example, 74% of the prison population and 62% of the jail population are overweight, obese, or morbidly obese.<sup>2,3</sup> They have higher rates of both non-communicable diseases (illnesses that are not passed from person to person) and infectious diseases.<sup>4,5</sup> They are more likely to have cardiovascular disease and associated risk factors such as hypertension and diabetes, as well as asthma, arthritis, hepatitis, HIV, and cancer.<sup>6,7,8</sup> Once released, justice involved individuals are 3.5 times more likely to die prematurely than people who do not have a history of involvement in the justice system.<sup>9</sup>

At this time, the reasons justice involved individuals experience poorer health outcomes are unclear. However, there are many social and economic factors that contribute to both a higher risk of incarceration and health problems. These include poverty, minority status, behavioral health issues, unemployment, as well as limited access to healthy food, healthcare, and behavior management resources.<sup>10</sup> Given these factors, by the time individuals become involved in the justice system, their health is already poorer than that of the average American. Once incarcerated, it can be even more difficult for these individuals to maintain their health.<sup>11</sup>

### About This Toolkit

This supplemental toolkit provides guidance for healthcare professionals as well as correctional administrators and staff who want to improve health outcomes for incarcerated individuals through evidence-based interventions. Health and weight management interventions for this population are very similar to evidence-based strategies for the general population. However, there are factors unique to this population that are important to consider.

Since there are many different kinds of correctional settings, all with unique needs and availability of resources, this toolkit focuses on the health of incarcerated individuals as well as those individuals preparing for release into the community. Many of the assessment and treatment recommendations are applicable to individuals in community corrections, diversion, and re-entry programs.

This toolkit contains information about this population and ways to partner with individuals to help them reach their health goals. It is designed to be used in conjunction with the [DIMENSIONS: Well Body Toolkit for Healthcare Providers](#), which contains evidence-based information about assessment, skills building, and interventions to provide support and resources around health and weight management.

Through health behavior change programs, correctional institutions have the opportunity to support healthy lifestyles with benefits that extend well beyond a single individual. Studies show that as individuals in correctional settings improve their health, there are fewer problems with security and conduct as well as lower medical costs.<sup>12,13</sup>

Additionally, the broader community benefits from the release of individuals with health knowledge, positive health behaviors, fewer communicable diseases, self-efficacy, and a lower probability of recidivism.<sup>14,15,16,17,18</sup> Engagement in prevention and healthy behaviors also reduces the long-term cost of chronic disease and disability.<sup>19</sup> Rehabilitation of the justice involved population is possible and may be more likely with health education, programming, and services.<sup>20</sup>

### **Definition of Justice Involved**

The term “justice involved” will substitute for the customary terms (e.g., inmate, prisoner, parolee, etc.) to describe individuals who have been incarcerated or those participating in community corrections programs. The ways in which individuals or larger groups are labeled can have a profound impact on a reader’s subjective experience of objective data. This term makes an attempt to remove some of the inherent stigma associated with this population.



# Physical Health

## Overweight and Obesity

The majority of justice involved individuals are overweight, obese, or morbidly obese. In prison settings, this rate is an alarming 74% while jail settings are at 62%.<sup>21,22</sup> This is about twice the rate in the general population in the U.S., which is currently at 35%, or 78.6 million people.<sup>23,24</sup> However, these rates vary widely based on region, correctional system, and demographic factors.

Weight gain is common in prison, which is likely due to preexisting health problems as well as circumstances associated with being incarcerated.<sup>25</sup> Lack of space and time allotted for exercise, unsafe environments, limited dietary options, stress, overmedication, and a lack of education can all contribute to weight gain in this population.<sup>26,27,28</sup>

## Cardiovascular Disease

While around 3% of the U.S. population reports ever having had a heart attack, the rates for those in federal and state prisons are 4.5% and 5.7%, respectively.<sup>29</sup> It was also found that 27% of inmate deaths were due to heart disease.<sup>30</sup> Being obese or overweight are the most commonly cited major risk factors for cardiovascular problems, but tobacco use, diet, stress, and exercise are also contributing factors.<sup>31,32,33</sup>

**High blood pressure is the most common chronic condition found in the justice involved population. Asthma and arthritis are the second and third most common chronic conditions.<sup>34</sup>**

## Diabetes

The most recent statistics indicate that about 9% of justice involved individuals have been diagnosed with diabetes. This rate is equal to that of the general population in the U.S., however, it is almost twice the rate reported for justice involved individuals in 2004.<sup>35,36,37</sup>

The need for immediate and ongoing care for diabetes is necessary to reduce the risk of later complications such as heart attack, vision loss, renal failure, and amputation. Early identification and continuity of care is essential, both of which may be more difficult in a criminal justice context.<sup>38</sup>

## Respiratory Disease

Justice involved individuals have a higher incidence of asthma in all age groups.<sup>38</sup> This may be due to differences in health behaviors such as higher rates of smoking, as well as exposure to more environmental toxins, like indoor pollution. Also, there is some evidence that increased psychological stress may increase risk for asthma and other respiratory diseases.<sup>40</sup>

## Liver Disease

The incidence of hepatitis in the justice involved population is up to four times the national average.<sup>41</sup> Justice involved individuals also have high incidences of alcohol abuse and dependence, which can contribute to liver disease.<sup>42</sup> In one study, 59% of women and 36% of men involved in the justice system admitted to having a drinking problem. In addition to liver disease, excessive alcohol use can contribute to other health problems.<sup>43</sup>

# Contributing Factors

There are a number of factors that contribute to increased health risks and poorer overall health experienced by justice involved individuals.

## Environmental Factors

### *Access to Healthy Food*

There are often very few food choices available in correctional institutions, and individuals are routinely fed diets high in fat, salt, and complex carbohydrates.<sup>44,45</sup> Sodium intake is over twice the recommended level for both men and women.<sup>46</sup> These unhealthy diets are often supplemented by food sold in commissaries, which includes snacks that tend to be energy dense and are similarly high in saturated fat, salt, sugar, and carbohydrates.<sup>47</sup>

As correctional costs continue to skyrocket, many systems struggle to find ways to effectively manage their budgets. One way is by limiting food choices and serving cheaper, low cost meals. In some states, correctional institutions spend as little as \$1.13 per day, per individual.<sup>48</sup>

Though one of the primary roles of the Food and Drug Administration is to execute policies and mandates related to food consumption in the United States, correctional institution diet plans are not regulated or monitored.<sup>49</sup> Despite the fact that there are no federal regulations on the minimum standards for calorie intake in state prisons, officials are encouraged to follow guidelines put forth by the Food and Nutrition Board of the National Academies' Institute of Medicine.<sup>50</sup>

Since many justice involved individuals are from low-income neighborhoods, access to healthy food and education about healthy eating and nutrition are often limited before and after incarceration.

These issues, combined with other environmental factors, can promote weight gain and contribute to the development of weight-related medical conditions. However, discussions of feeding inmates “healthy food” may be politically unpopular and may be met with systemic resistance. There may be a feeling that individuals who are incarcerated do not have “the right” to make food choices.

### *Screening and Healthcare Access*

A vast majority of incarcerated individuals come from underserved populations where there is limited access to health screenings and preventive care in the community.<sup>51</sup> Moreover, when serving sentences, access to these resources is limited to what the jail, prison, or community corrections program can provide. For example, care for obesity-related risks and conditions is lacking, whereas screening and preventive care is often provided for other health conditions, including hepatitis C vaccinations and tuberculosis and syphilis testing.<sup>52</sup>

**According to a recent survey, just over half of incarcerated individuals stated that they were somewhat satisfied (43.8%) or very satisfied (12.6%) with their healthcare since admission, while the rest of those surveyed (43.6%) indicated they were not satisfied at all.<sup>53</sup>**

## *Movement Restriction*

Depending upon the setting, individuals may spend most of their daytime hours in cells and other indoor facilities – limiting access to direct sunlight and promoting a sedentary lifestyle. Especially when there are routine lockdowns, justice involved individuals may have little or no access to regular exercise.<sup>54</sup> And in some correctional institutions, individuals may be afraid to leave their cells due to fears of violence.<sup>55</sup> While physical activity is well documented as necessary to a healthy body, it is especially important in the management of diabetes and other weight-related illnesses. It also affects mental health. One study found a significant inverse relationship between exercise and hopelessness for incarcerated individuals.<sup>56</sup>

## *Hopelessness*

Learned helplessness, or the perceived absence of control over a situation and subsequent lack of effort, often affects this population.<sup>64</sup> Correctional settings have many features that can foster hopelessness, desperation, and depression. Some of these environmental conditions include lockdown, seclusion, and sensory deprivation.<sup>65</sup>

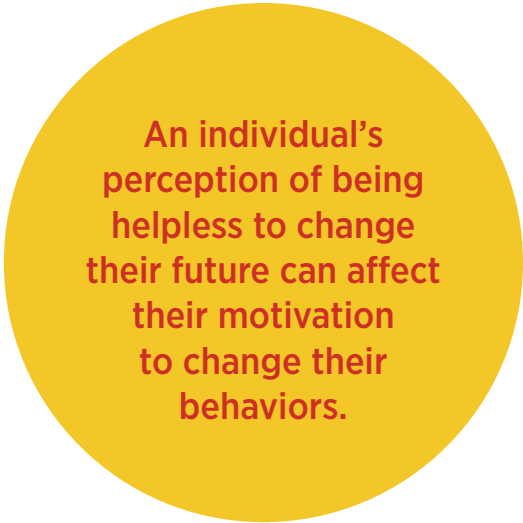
Even if signs of severe or chronic depression or suicidal ideation are absent, a justice involved individual may feel disempowered and unable to positively influence their future. An individual's perception of being helpless to change their future can in turn affect their motivation to change their behaviors.<sup>66</sup> This can create additional challenges to improving one's health.

## *Psychological Factors*

### *Stress of Incarceration*

Being involved in the criminal justice system is a stressful experience.<sup>57</sup> There are some obvious stress-inducing factors, such as confinement, overcrowding, behavioral health problems, violence and victimization, and isolation from family, friends and social support.<sup>58</sup> Other, less overt sources of stress can also be at play. For instance, fear of other inmates or prison staff, stigma, lack of control over one's environment, uncertainty, and identity issues can all affect overall psychological health, or even cause post-traumatic stress disorder (PTSD).<sup>59,60,61</sup>

Prolonged stress can negatively affect physical health as well as the body's ability to cope with future stressors.<sup>62</sup> It has even been suggested that stress associated with incarceration may permanently damage the body's ability to fight infection and disease.<sup>63</sup>



**An individual's perception of being helpless to change their future can affect their motivation to change their behaviors.**



## Special Populations: Mental Illness in the Criminal Justice System

*“Prisons and jails have become America’s ‘new asylums.’”*<sup>67</sup>

There are 10 times more people with serious mental illness incarcerated in correctional institutions than in state psychiatric hospitals.<sup>68</sup> Individuals with behavioral health conditions, including serious mental illness and/or substance abuse, make up more than half of the incarcerated population in the U.S.<sup>69</sup> In 2012, there were estimated to be 356,268 people with serious mental illness incarcerated in prisons and jails.<sup>70</sup>

People with serious mental illness generally have poorer physical health than people without a mental health diagnosis, and it often worsens with incarceration.<sup>71</sup> For instance, justice involved individuals with a serious mental illness are more likely to experience physical, sexual, and emotional abuse in correctional facilities.<sup>72,73</sup> This can compound difficulties this population already faces with overall health.<sup>74</sup>

Obesity is of particular concern in this population.<sup>75</sup> Strong correlations have been found between obesity and bipolar disorder and schizophrenia, as well as other mood and anxiety disorders.<sup>76</sup> In one study, over 70% of soon-to-be-released individuals with a mental health diagnosis were overweight or obese. This link may be due to factors related to incarceration but may also be attributed to the effects of psychotropic medications.<sup>77</sup>

**Medication management.** Lack of mental health providers, abuse of medications, scheduling issues, and inadequate funding can all contribute to an environment that makes assessment, treatment, and medication compliance difficult.<sup>78</sup>

**Continuity of care.** Effective and continuous mental health treatment is essential to positive patient outcomes. Since justice involved individuals often undergo many care transitions, it can be difficult for these individuals to receive the treatment they need.<sup>79</sup> Provider communication, record maintenance, record transfer, referrals, and follow-up can all improve the mental and physical health of justice involved individuals with a behavioral health condition.

Please see the [DIMENSIONS: Well Body Toolkit for Healthcare Providers Supplement, Priority Populations: Behavioral Health](#) for more specific information on nutrition and weight management issues for the behavioral health population.

In 44 of the 50 states and the District of Columbia, prisons or jails hold more individuals with serious mental illness than the largest remaining state psychiatric hospital.<sup>80</sup>

## Social Factors

### *Social Determinants of Health*

It is well known that race/ethnicity is an important social determinant. For example, nearly 40% of individuals currently incarcerated in the U.S. are African-American, despite the fact that African-Americans only constitute approximately 12 - 13% of the general population.<sup>81</sup> Additionally, African-Americans as a group generally score lower on many indicators of population health. This includes life expectancy, infant mortality, and other chronic diseases or conditions that lead to lower quality of life or premature death.<sup>82</sup>

In a 2011 study conducted by the Centers for Disease Control and Prevention (CDC), poor economic circumstances were linked to an increased risk for morbidity, mortality, unhealthy behaviors, reduced access to healthcare and poor quality of care.<sup>83</sup> There also appears to be a link between pre-incarceration poverty and involvement in the justice system.

Individuals with low educational achievement also experience poorer health outcomes relative to same age counterparts. This demographic sub-group is overrepresented in the justice involved population with an estimated 40% of individuals in state prisons having less than a high school diploma.<sup>84</sup>

### *Stigma*

There is a very real and often damaging stigma associated with being a known “criminal.” There is an enduring belief held by many people that justice involved individuals do not deserve the same rights and privileges as those in the broader community. This perception can affect access to healthcare, policy decisions, and allocation of resources.<sup>85</sup> Upon release, stigma can also negatively affect an individual’s ability to secure housing and employment, which may increase stress, affect healthy decision-making, and risk of recidivism.<sup>86</sup>

### *Allocation of Resources*

Although the U.S. spends more on healthcare than any other country, correctional systems have limited budgets and often short supplies of human and other resources to allocate to healthcare. There has been unprecedented growth in the correctional system, which makes it challenging for these institutions to operate at maximum efficiency and to provide basic healthcare services.<sup>87</sup>

### *Continuity of Care*

As incarceration is often a “revolving door,” it can feed into a cycle of economic disadvantage, social stigma, and emotional stress that can all contribute to negative health outcomes.<sup>88,89</sup> One study found that after release, nearly 77% of former inmates were rearrested within a 5-year period.<sup>90</sup>

Moreover, those in the criminal justice system go through a number of transitions, seeing many different providers. Important health information and data can be lost in this process, as can any established rapport and trust between provider and patient. As a result, treatment plans and patient progress may not be maintained. For example, there is low adherence to HIV/AIDS medication regimens after release from prison, regardless of the adherence level while incarcerated.<sup>91</sup>



**LINK:** Visit this link for the detailed paper, “A Continuity of Care Model for the Justice-Involved Population.”

This paper explores an innovative continuity of care model that serves as the foundation for addressing the justice involved population’s specific health needs.

<http://www.bhwellness.org/fact-sheets-reports/A%20Continuity%20of%20Care%20Model%20for%20JI%20Population%20FINAL.pdf>

## Special Populations: Women's Health in the Criminal Justice System

According to the American College of Obstetricians and Gynecologists (ACOG), women who are incarcerated are “among the most vulnerable in our society.”<sup>92</sup> In fact, the average health of incarcerated women is worse than that of both incarcerated men and women who are not incarcerated.<sup>93</sup> Also, women entering corrections are often survivors of physical and/or sexual abuse, and cases of abuse by other incarcerated individuals or prison employees are not rare.<sup>94</sup>

In the last 20 years, the population of incarcerated women has grown by 120%—far exceeding that of men at 75%—and continues to rise.<sup>95,96</sup> Resources available to meet this growth are limited.<sup>97</sup> Since correctional settings are traditionally male-dominated environments, the health needs of women are often overlooked.<sup>98</sup> Given these unique health needs, it is important to consider their specific health concerns within the criminal justice system.

**Weight and health.** Women who are incarcerated are more likely to be obese and/or gain weight while in prison.<sup>99</sup> There is evidence to suggest that they are usually served meals that are designed for males, which contributes to weight gain and cardiovascular disease.<sup>100</sup>

**Pregnancy.** Pregnancies among women who are incarcerated are often unplanned and very high-risk.<sup>101</sup> There are high rates of documented miscarriages in jails and prisons around the country.<sup>102</sup> Some factors that compromise the health of both mother and infant include lack of prenatal care, poor nutrition, violence, mental illness, drug and alcohol abuse, and HIV infection.<sup>103,104,105</sup>

**Mental Illness.** Among prisoners in federal facilities, almost 50% more women than men have been diagnosed with mental health conditions.<sup>106</sup> Additionally, women who are incarcerated have a much higher rate of psychiatric disorders than the general population.<sup>107</sup>

**Cancer.** Women in the justice system have been found to suffer from cervical cancer at a rate up to 7 times the general population.<sup>108</sup> While Pap smear tests are routinely performed in the general population, it is not usually offered in jails and prisons.<sup>109</sup>

**Sexual Health.** One study found that up to half of women who are justice involved have at least one sexually transmitted infection.<sup>110</sup> In correctional settings, women have higher rates of HIV/AIDS than men.<sup>111</sup>

**Geographical Displacement.** Since there are fewer female prisons overall, women are more likely to be housed further from their communities, thus isolating them geographically from their families as well as their legal and community resources.<sup>112</sup>

For more information about maintaining a well body for women who are pregnant or postpartum, see the [DIMENSIONS: Well Body Toolkit for Healthcare Providers Supplement, Priority Populations: Pregnant and Postpartum](#).

## Assessment and Planning

Whether the individual you are treating has an identified risk factor or chronic disease diagnosis or not, it is important to address their health and health behaviors, including nutrition and weight management. Be aware that justice involved individuals, depending upon their prior access to healthcare, may need more education and information to understand the importance of preventive interventions, how their choices today can affect their future health, and why it matters.

Having a clear understanding of the overall health needs of the justice involved population as well as an individual's unique needs will help healthcare providers to offer support in a culturally competent and effective manner.

### The Role of the Healthcare Provider

Since justice involved individuals often are not in a position to advocate for their health needs, it is important for healthcare providers to act as their advocate for education, interventions, and policies within the justice system. Your knowledge, experience, and skills are invaluable resources for this population—a population that experiences significant health disparities. Working on a systems level as well as an individual level will help to remove barriers to health that persist within correctional settings.

Begin the process of addressing an individual's well body needs by using some key approaches:

- Ask permission to discuss weight and other health concerns;
- Be open to explore an individual's motivation;
- Listen for what matters most to them;
- Guide them towards contemplation of change;
- Approach the individual with genuine respect, interest, and empathy;
- Listen for statements that suggest readiness to change;
- Strategize ways to maintain a well body within a system with restrictions;
- Explore new policies and programs to support health;
- Plan for transition to the community;
- Engage with correctional staff to support health goals during incarceration and re-entry.

Review the Assessment and Planning for Change section of the [DIMENSIONS: Well Body Toolkit for Healthcare Providers](#) for additional information and strategies to support change.



## Tips for Talking about Health & Wellness—The 5A's

The best way for providers to discuss health promotion and wellness in correctional settings is to use the “5A's” model. Although the 5A's model has not been specifically adapted for use with the justice involved population, it is a model familiar to many providers and can help to start the conversation.

- Start by **ASK**ing about their interest in maintaining a healthy weight or other well body goals
- **ADVISE** the individual to commit to making positive change in their health behaviors
- **ASSIST** by providing health education and information
- **ASSESS** their readiness and potential barriers to change
- **ARRANGE** follow-up as needed, including access to resources



## Strategies to Support Health & Wellness in Correctional Settings

**Educate yourself.** Though research has outlined several chronic health conditions that are vastly overrepresented in the criminal justice population, familiarize yourself with the chronic medical conditions that are present in your population. Many correctional systems collect health data on individuals at intake. Understanding the specifics of your population can help tailor interventions and obtain buy-in from other professionals and the individuals you serve.

**Educate others.** Whether providing education to a justice involved individual or to colleagues within your correctional setting, it is important to help others to understand the effects poor health can have on an individual, the correctional system, and the broader community.

**Build a case for wellness programming.** The research literature indicates that healthcare costs in correctional settings are skyrocketing while the population's health is declining. Find data and resources in your state or county correctional system to help staff and administrators understand the need for wellness interventions.

**Understand state and county policies.** Throughout program implementation, it is vital to understand the food service policies, budgetary guidelines, exercise initiatives, and other policies that may be relevant to health conditions for individuals that are incarcerated.

**Engage leadership.** With any health-related initiative or program, individuals in leadership positions within the facility should play a role throughout the process. This may include wardens, state agency representatives (e.g., state department of corrections), medical or psychiatric directors, or other leaders that can assist with getting the program up and running.

**Be innovative.** When considering implementing a program within a correctional setting, providers must consider time and resource constraints. Within many facilities, there is very little space (e.g., rooms to run groups) and individuals who are incarcerated may already be required to attend multiple groups or sessions per day. Work with other professionals, correctional staff, and individuals within the population to figure out the most efficient and effective way to implement programming.

**Empower, empower, EMPOWER.** Frequently, individuals within this population may feel that they have little to no control over food choices, exercise options, or other health behaviors – making it easy to give up on health promotion efforts. Help individuals think of ways they do have control over their health – even while incarcerated. For example, individuals can choose to drink water or tea (as opposed to soda or sugary fruit drinks), to exercise during sessions with certain providers or choose healthier options from the commissary. Support the individual to create ways to maintain their well body and empower them to make the choice to live healthy.

**Plan for re-entry and identify support services in your community.** If these resources are offered prior to release, individuals can receive support to maintain their healthy behaviors in their community. Correctional health providers can utilize resources (e.g., local public health department, federally qualified health center, etc.) to locate community programs and connect individuals as a part of the re-entry planning process. Additionally, the healthy behaviors and coping strategies developed within the correctional setting can translate and support successful transition into the community. These skills are key not only to maintaining a well body, but improved functioning overall.

# Treatment

The most effective well body interventions for justice involved populations are specifically developed to address their unique needs, which may vary based on region, risk level, and setting; these circumstances must be considered and integrated into programs and policies. There are many health behaviors that may be addressed within justice involved populations. Some key behaviors to focus on include nutrition and weight management, physical activity, stress management, tobacco and other substance use, healthy coping skills, and chronic disease management, among others.

## Key qualities for well body treatment for the justice involved populations include:

**Early Intervention** – Engage in prevention strategies and treatment before minor health problems become serious chronic conditions. Early interventions are easier to implement and, if successful, are likely to improve long-term health. When an individual is incarcerated, there is a window of opportunity to provide healthcare, education, and treatment that individuals may not have had access to before. As individuals learn to practice and integrate healthy habits into their daily routine in a correctional setting, they are more likely to translate these behaviors into their post-release activities.

**Motivational Assessment** – Explore an individual's readiness to change their health behaviors. Identify their unique motivations for change as well as any ambivalence to change. Examine their perceived benefits of continuing their current health behaviors and reasons they may want to make different choices. Justice involved individuals are more receptive when they are respectfully asked to share their perspective and opinions. This approach works better than telling them what they should do differently and why. Be aware of and sensitive to different familial and community health beliefs and practices. Factor this information into your motivational intervention.

**Education** – Since many justice involved individuals may not have had adequate access to health education and information, many are open and interested to learn. Helping individuals to understand basic health information as well as increase their awareness of the social justice issues involved in health disparities can increase motivation and engagement. Education can facilitate feelings of empowerment and a perception of control in settings where people may otherwise believe they have no control over their experience.

**Skills Building** – Assist individuals to build the skills they need to make healthy decisions. Some of these skills may include impulse control, boundary setting, stress management, and healthy habits. Developing positive coping skills and practicing healthy decision-making support an individual's ability to handle stressful situations, mediate the effect of negative moods, and facilitate prosocial relationships.

**Peer-led Programs** – Several studies have shown peer programming to be successful in improving health in this population. Peer education programs targeting HIV, hepatitis C, literacy, and parenting have all shown favorable outcomes for justice involved individuals. There is also evidence that the peer support role can be beneficial for the individual providing the support. This includes improved self-esteem, knowledge, relationships, self-awareness, perspective, sense of purpose, skills to support good health, and healthy decision-making.<sup>113</sup>

**Policy Interventions** – Work with state corrections and facility leaders to develop policies that support the health and wellness of justice involved individuals. These may be policies around providing healthy food, opportunities for physical activity, health screens, and other wellness programming. Implement policies that support rehabilitation and transition into the community, including pre-release and re-entry.



**LINK:** Review the Treatment section of the [DIMENSIONS: Well Body Toolkit for Healthcare Providers](#) for additional strategies and interventions.

## The Affordable Care Act and Medicaid Expansion

The Affordable Care Act (ACA) expanded eligibility for Medicaid coverage to many individuals who were previously excluded (such as non-disabled adults without dependents). This means that in states that have elected to implement expanded coverage, many justice involved individuals who did not previously qualify for Medicaid may now have the opportunity to obtain healthcare coverage when transitioning back into the community. Additionally, the creation of health insurance “marketplaces” increases the ability of justice involved individuals in all states to obtain coverage. Benefitting not only justice involved individuals, but also corrections systems, states, and communities, it is essential to educate those transitioning from incarceration about these programs and assist with obtaining coverage.

### For more information:

Health Coverage and Care for the Adult Criminal Justice-Involved Population:  
<http://kff.org/uninsured/issue-brief/health-coverage-and-care-for-the-adult-criminal-justice-involved-population/>

The Affordable Care Act and Criminal Justice: Intersections and Implications:  
[https://www.bja.gov/Publications/ACA-CJ\\_WhitePaper.pdf](https://www.bja.gov/Publications/ACA-CJ_WhitePaper.pdf)



## Maintaining a Well Body

With adequate provider, programmatic, peer, and policy support, many justice involved individuals can make the choice to change their health behaviors. They may actively engage in their healthcare, including preventive care and medication adherence. They can also choose health behaviors that help maintain a healthy weight. However, if they are housed within a correctional setting or are released into a community that does not provide this support, the individual may struggle to maintain their health. As such, it is important for the individual to possess the knowledge, skills, and motivation they can take with them wherever they go.

**LEARN** Offer opportunities for justice involved individuals to be informed. Provide education about specific health conditions, including risk, prevention, and management. Educate individuals about healthy habits that can facilitate wellness. Whether or not the individual is able to practice these behaviors in their current setting, this knowledge will be useful to them in the future.

**EMPOWER** Inspire individuals to take an active role in their health. While they may feel helpless or a lack of control in certain areas of their life, there are many choices that are available to them. Switching focus from things they cannot change to things they can change can be empowering. Support them to make a positive choice for health.

**ACT** Support the practice of healthy behaviors until they become a habit. When faced with a decision, the easiest choice is the behavior that feels most familiar, almost automatic. The more healthy behaviors justice involved individuals can practice, the greater their skill set when facing a challenge or under duress.

**ENVISION** Help individuals to develop an identity that includes health and well-being. Support justice involved individuals to develop a sense of self that includes a healthy weight and good nutrition. Explore their values and goals, highlighting the discrepancy between their unhealthy behaviors, and the life they want to live.

**LISTEN** Encourage individuals to listen to their emotional and physical signs and symptoms. As they become aware, they have the opportunity to take steps to engage in healthy coping strategies and decision-making.

**CONNECT** Assist individuals in accessing resources available within their community and/or correctional setting. The more individuals can be aware of the healthcare resources available to them, the more likely they will benefit from these services. Remove barriers to access by facilitating transitions pre-release. Connect individuals with re-entry programs. Encourage the use of peer support in correctional and re-entry settings.

## Resources

The following chart outlines some key resources available to healthcare providers who want to improve health outcomes for justice involved individuals.

Name of Program	Description and Resources
<b>Wellness Recovery Action Plan (WRAP)</b>	<p>WRAP is used in mental health settings and is now being successfully implemented in the criminal justice setting. A WRAP is a self-designed plan for helping individuals to feel better when they are not feeling well, to increase personal responsibility, and to improve overall quality of life.</p> <p><a href="http://www.mentalhealthrecovery.com/WRAPintheCriminalJusticeSystem.php">http://www.mentalhealthrecovery.com/WRAPintheCriminalJusticeSystem.php</a></p>
<b>National Commission on Correctional Health Care</b>	<p>This website offers best practices for correctional healthcare and provides recommended healthcare standards, position statements, guidance on disease management, and other resources.</p> <p><a href="http://www.ncchc.org/standards-guidelines">http://www.ncchc.org/standards-guidelines</a></p>
<b>DIMENSIONS: Well Body Toolkits for Healthcare Providers</b>	<p>Designed for a broad range of healthcare providers, these toolkits contain information on the importance of maintaining a healthy weight, developing skills for engaging individuals in weight management conversations, low burden means of assessing change related to increasing healthy behaviors, and evidence-based treatment options.</p> <p><a href="https://www.bhwellness.org/resources/toolkits/well-body/">https://www.bhwellness.org/resources/toolkits/well-body/</a></p>
<b>Health in Prisons: A WHO Guide to the Essentials in Prison Health</b>	<p>The health of prisoners is a worldwide concern. The World Health Organization partners with multiple countries, systems, and organizations to design innovative approaches to reduce public health risks in correctional institutions. This guide provides the steps prisons systems should take to promote the health of prisoners and staff.</p> <p><a href="http://www.euro.who.int/__data/assets/pdf_file/0009/99018/E90174.pdf">http://www.euro.who.int/__data/assets/pdf_file/0009/99018/E90174.pdf</a></p>

## Resources

Name of Program	Description and Resources
<b>Health Promoting Prisons: A Shared Approach</b>	<p>The United Kingdom Department of Health published a report aimed at those working with justice involved individuals and who have a role in promoting health education in prisons.</p> <p><a href="http://webarchive.nationalarchives.gov.uk/+www.dh.gov.uk/en/Publicationsandstatistics/Publications/PublicationsPolicyAndGuidance/DH_4006230">http://webarchive.nationalarchives.gov.uk/+www.dh.gov.uk/en/Publicationsandstatistics/Publications/PublicationsPolicyAndGuidance/DH_4006230</a></p>
<b>Health Coverage and Care for the Adult Criminal Justice-Involved Population</b>	<p>This website provides an overview of how the Affordable Care Act coverage expansions provide new opportunities to increase health coverage for this population.</p> <p><a href="http://kff.org/uninsured/issue-brief/health-coverage-and-care-for-the-adult-criminal-justice-involved-population/">http://kff.org/uninsured/issue-brief/health-coverage-and-care-for-the-adult-criminal-justice-involved-population/</a></p>
<b>Health Care for Pregnant and Postpartum Incarcerated Women and Adolescent Females</b>	<p>The American College of Obstetricians and Gynecologists (ACOG) issued a committee opinion detailing the special health needs of pregnant incarcerated women and issues surrounding the use of restraints during pregnancy.</p> <p><a href="http://www.acog.org/Resources-And-Publications/Committee-Opinions/Committee-on-Health-Care-for-Underserved-Women/Health-Care-for-Pregnant-and-Postpartum-Incarcerated-Women-and-Adolescent-Females">http://www.acog.org/Resources-And-Publications/Committee-Opinions/Committee-on-Health-Care-for-Underserved-Women/Health-Care-for-Pregnant-and-Postpartum-Incarcerated-Women-and-Adolescent-Females</a></p>
<b>Diet-Vitamin Program for Jail Inmates</b>	<p>This report looks at the results of an 8-week intervention at a county jail that included diet education, vitamin supplements, and the availability of a high protein evening snack.</p> <p><a href="http://orthomolecular.org/library/jom/1975/pdf/1975-v04n03-p212.pdf">http://orthomolecular.org/library/jom/1975/pdf/1975-v04n03-p212.pdf</a></p>

## End Notes

- <sup>1</sup> Glaze, L. E., & Kaeble, D. (2014). *Correctional populations in the United States, 2013* [Report NCJ 248479]. Washington, DC: U.S. Department of Justice, Office of Justice Programs, Bureau of Justice Statistics. Retrieved from <http://www.bjs.gov/content/pub/pdf/cpus13.pdf>
- <sup>2</sup> Maruschak, L. M., Berzofsky, M., & Unangst, J. (2015). *Medical problems of state and federal prisoners and jail inmates, 2011-12* [Report No. NCJ 248491]. Washington, DC: U.S. Department of Justice, Office of Justice Programs, Bureau of Justice Statistics.
- <sup>3</sup> Wolff, N., Shi, J., Fabrikant, N., & Schumann, B. E. (2012). Obesity and weight-related medical problems of incarcerated persons with and without mental disorders. *Journal of Correctional Health Care*, 18(3), 219-232.
- <sup>4</sup> Wilper, A. P., Woolhandler, S., Boyd, J. W., Lasser, K. E., McCormick, D., Bor, D. H., & Himmelstein, D. U. (2009). The health and health care of US prisoners: Results of a nationwide survey. *American Journal of Public Health*, 99(4), 666-672.
- <sup>5</sup> Herbert, K., Plugge, E., Foster, C., & Doll, H. (2012). Prevalence of risk factors for non-communicable diseases in prison populations worldwide: A systematic review. *The Lancet*, 379(9830), 1975-1982.
- <sup>6</sup> Binswanger, I. A., Krueger, P. M., & Steiner, J. F. (2009). Prevalence of chronic medical conditions among prison inmates in the USA compared with the general population. *Journal of Epidemiological and Community Health*, 63(11), 912-919.
- <sup>7</sup> Glaser, J. B., & Greifinger, R. B. (1993). Correctional health care: A public health opportunity. *Annals of Internal Medicine*, 118(2), 139-145.
- <sup>8</sup> Wilper, A. P., Woolhandler, S., Boyd, J. W., Lasser, K. E., McCormick, D., Bor, D. H., & Himmelstein, D. U. (2009). The health and health care of US prisoners: Results of a nationwide survey. *American Journal of Public Health*, 99(4), 666-672.
- <sup>9</sup> Binswanger, I. A., Stern, M. F., Deyo, R. A., Heagerty, P. J., Cheadle, A., Elmore, J. G., & Koepsell, T. D. (2007). Release from prison—a high risk of death for former inmates. *New England Journal of Medicine*, 356(2), 157-165.
- <sup>10</sup> Wallace, D., & Papachristos, A. V. (2014). Recidivism and the availability of health care organizations. *Justice Quarterly*, 31(3), 588-608.
- <sup>11</sup> De Viggiani, N. (2007). Unhealthy prisons: Exploring structural determinants of prison health. *Sociology of Health & Illness*, 29(1), 115-135.
- <sup>12</sup> Benton, D. (2007). The impact of diet on anti-social, violent and criminal behaviour. *Neuroscience & Biobehavioral Reviews*, 31(5), 752-774.
- <sup>13</sup> Leddy, M. A., Schulkin, J., & Power, M. L. (2009). Consequences of high incarceration rate and high obesity prevalence on the prison system. *Journal of Correctional Health Care*, 15(4), 318-327.
- <sup>14</sup> Kim, J. Y., Rich, J., Zierler, S., Lourie, K., Vigilante, K., Normandie, L., ... & Flanigan, T. P. (1997). Successful community follow-up and reduced recidivism in HIV positive women prisoners. *Journal of Correctional Health Care*, 4(1), 5-17.
- <sup>15</sup> Glaser, J. B., & Greifinger, R. B. (1993). Correctional health care: A public health opportunity. *Annals of Internal Medicine*, 118(2), 139-145.
- <sup>16</sup> Hammett, T. M., Roberts, C., & Kennedy, S. (2001). Health-related issues in prisoner reentry. *Crime & Delinquency*, 47(3), 390-409.
- <sup>17</sup> Conklin, T. J., Lincoln, T., & Tuthill, R. W. (2000). Self-reported health and prior health behaviors of newly admitted correctional inmates. *American Journal of Public Health*, 90(12), 1939.
- <sup>18</sup> Freudenberg, N. (2001). Jails, prisons, and the health of urban populations: A review of the impact of the correctional system on community health. *Journal of Urban Health*, 78(2), 214-235.
- <sup>19</sup> Leddy, M. A., Schulkin, J., & Power, M. L. (2009). Consequences of high incarceration rate and high obesity prevalence on the prison system. *Journal of Correctional Health Care*, 15(4), 318-327.
- <sup>20</sup> Andrews, D. A., & Bonta, J. (2010). Rehabilitating criminal justice policy and practice. *Psychology, Public Policy, and Law*, 16(1), 39.
- <sup>21</sup> Maruschak, L. M., Berzofsky, M., & Unangst, J. (2015). *Medical problems of state and federal prisoners and jail inmates, 2011-12* [Report No. NCJ 248491]. Washington, DC: U.S. Department of Justice, Office of Justice Programs, Bureau of Justice Statistics.
- <sup>22</sup> Wolff, N., Shi, J., Fabrikant, N., & Schumann, B. E. (2012). Obesity and weight-related medical problems of incarcerated persons with and without mental disorders. *Journal of Correctional Health Care*, 18(3), 219-232.
- <sup>23</sup> Ogden, C. L., Carroll, M. D., Kit, B. K., & Flegal, K. M. (2014). Prevalence of childhood and adult obesity in the United States, 2011-2012. *Journal of the American Medical Association*, 311(8):806-814.

- <sup>24</sup> Clarke, J. G., & Waring, M. E. (2012). Overweight, obesity, and weight change among incarcerated women. *Journal of Correctional Health Care*, 18(4).
- <sup>25</sup> Leddy, M. A., Schulkin, J., & Power, M. L. (2009). Consequences of high incarceration rate and high obesity prevalence on the prison system. *Journal of Correctional Health Care*, 15(4), 318-327.
- <sup>26</sup> Block, J. P., He, Y., Zaslavsky, A. M., Ding, L., & Ayanian, J. Z. (2009). Psychosocial stress and change in weight among US adults. *American Journal of Epidemiology*, 170(2), 181-192.
- <sup>27</sup> Massie, J. A. (2000). *Changes in weight experienced by female inmates in the Federal Bureau of Prisons*. Unpublished master's thesis, Uniformed Services University of the Health Sciences, Bethesda, Maryland.
- <sup>28</sup> Masand, P. S. (2000). Weight gain associated with psychotropic drugs. *Expert Opinion on Pharmacotherapy*, 1(3), 377-389.
- <sup>29</sup> Wilper, A. P., Woolhandler, S., Boyd, J. W., Lasser, K. E., McCormick, D., Bor, D. H., & Himmelstein, D. U. (2009). The health and health care of US prisoners: Results of a nationwide survey. *American Journal of Public Health*, 99(4), 666-672.
- <sup>30</sup> Binswanger, I. A., Stern, M. F., Deyo, R. A., Heagerty, P. J., Cheadle, A., Elmore, J. G., & Koepsell, T. D. (2007). Release from prison—a high risk of death for former inmates. *New England Journal of Medicine*, 356(2), 157-165.
- <sup>31</sup> Ambrose, J. A., & Barua, R. S. (2004). The pathophysiology of cigarette smoking and cardiovascular disease: an update. *Journal of the American College of Cardiology*, 43(10), 1731-1737.
- <sup>32</sup> Myers, J. (2003). Exercise and cardiovascular health. *Circulation*, 107(1), e2-e5.
- <sup>33</sup> Kromhout, D. (2000). Diet and cardiovascular diseases. *The Journal of Nutrition, Health & Aging*, 5(3), 144-149.
- <sup>34</sup> Maruschak, L. M., Berzofsky, M., & Unangst, J. (2015). *Medical problems of state and federal prisoners and jail inmates, 2011-12* [Report No. NCJ 248491]. Washington, DC: U.S. Department of Justice, Office of Justice Programs, Bureau of Justice Statistics.
- <sup>35</sup> Maruschak, L. M., Berzofsky, M., & Unangst, J. (2015). *Medical problems of state and federal prisoners and jail inmates, 2011-12* [Report No. NCJ 248491]. Washington, DC: U.S. Department of Justice, Office of Justice Programs, Bureau of Justice Statistics.
- <sup>36</sup> Binswanger, I. A., Krueger, P. M., & Steiner, J. F. (2009). Prevalence of chronic medical conditions among prison inmates in the USA compared with the general population. *Journal of Epidemiological and Community Health*, 63(11), 912-919.
- <sup>37</sup> Wilper, A. P., Woolhandler, S., Boyd, J. W., Lasser, K. E., McCormick, D., Bor, D. H., & Himmelstein, D. U. (2009). The health and health care of US prisoners: Results of a nationwide survey. *American Journal of Public Health*, 99(4), 666-672.
- <sup>38</sup> American Diabetes Association. (2012). Diabetes management in correctional institutions. *Diabetes Care*, 35(Supplement 1), S87-S93.
- <sup>39</sup> Binswanger, I. A., Krueger, P. M., & Steiner, J. F. (2009). Prevalence of chronic medical conditions among prison inmates in the USA compared with the general population. *Journal of Epidemiological and Community Health*, 63(11), 912-919.
- <sup>40</sup> Wright, R. J., & Fisher, E. B. (2003). Putting asthma into context: Community influences on risk, behavior, and intervention. In I. Kawachi & L. F. Berkman (Eds.), *Neighborhoods and Health* (pp. 233-264). New York, NY: Oxford University Press.
- <sup>41</sup> Binswanger, I. A., Krueger, P. M., & Steiner, J. F. (2009). Prevalence of chronic medical conditions among prison inmates in the USA compared with the general population. *Journal of Epidemiological and Community Health*, 63(11), 912-919.
- <sup>42</sup> Compton, W. M., Dawson, D., Duffy, S. Q., & Grant, B. F. (2014). The effect of inmate populations on estimates of DSM-IV alcohol and drug use disorders in the United States. *American Journal of Psychiatry*, 167(4), 473-474.
- <sup>43</sup> Becker, U., Deis, A., Sorensen, T. I., Gronbaek, M., Borch Johnsen, K., Muller, C. F., ... & Jensen, G. (1996). Prediction of risk of liver disease by alcohol intake, sex, and age: A prospective population study. *Hepatology*, 23(5), 1025-1029.
- <sup>44</sup> Wolff, N., Shi, J., Fabrikant, N., & Schumann, B. E. (2012). Obesity and weight-related medical problems of incarcerated persons with and without mental disorders. *Journal of Correctional Health Care*, 18(3), 219-232.
- <sup>45</sup> Herbert, K., Plugge, E., Foster, C., & Doll, H. (2012). Prevalence of risk factors for non-communicable diseases in prison populations worldwide: A systematic review. *The Lancet*, 379(9830), 1975-1982.
- <sup>46</sup> Herbert, K., Plugge, E., Foster, C., & Doll, H. (2012). Prevalence of risk factors for non-communicable diseases in prison populations worldwide: A systematic review. *The Lancet*, 379(9830), 1975-1982.
- <sup>47</sup> Herbert, K., Plugge, E., Foster, C., & Doll, H. (2012). Prevalence of risk factors for non-communicable diseases in prison populations worldwide: A systematic review. *The Lancet*, 379(9830), 1975-1982.
- <sup>48</sup> Collins, S. A., & Thompson, S. H. (2012). What are we feeding our inmates? *Journal of Correctional Health Care*, 18(3), 210-218.

- <sup>49</sup> Collins, S. A., & Thompson, S. H. (2012). What are we feeding our inmates? *Journal of Correctional Health Care*, 18(3), 210-218.
- <sup>50</sup> McCaffrey, S. (2009). State cutting prison meals to save money. Truthout. Retrieved from <http://truth-out.org/archive/component/k2/item/84444:states-cutting-prison-meals-to-save-money>
- <sup>51</sup> Hammett, T. M., Roberts, C., & Kennedy, S. (2001). Health-related issues in prisoner reentry. *Crime & Delinquency*, 47(3), 390-409.
- <sup>52</sup> Leddy, M. A., Schulkin, J., & Power, M. L. (2009). Consequences of high incarceration rate and high obesity prevalence on the prison system. *Journal of Correctional Health Care*, 15(4), 318-327.
- <sup>53</sup> Maruschak, L. M., Berzofsky, M., & Unangst, J. (2015). *Medical problems of state and federal prisoners and jail inmates, 2011-12* [Report No. NCJ 248491]. Washington, DC: U.S. Department of Justice, Office of Justice Programs, Bureau of Justice Statistics.
- <sup>54</sup> Leddy, M. A., Schulkin, J., & Power, M. L. (2009). Consequences of high incarceration rate and high obesity prevalence on the prison system. *Journal of Correctional Health Care*, 15(4), 318-327.
- <sup>55</sup> Wolff, N., Shi, J., Fabrikant, N., & Schumann, B. E. (2012). Obesity and weight-related medical problems of incarcerated persons with and without mental disorders. *Journal of Correctional Health Care*, 18(3), 219-232.
- <sup>56</sup> Cashin, A., Potter, E., & Butler, T. (2008). The relationship between exercise and hopelessness in prison. *Journal of Psychiatric and Mental Health Nursing*, 15(1), 66-71.
- <sup>57</sup> Massoglia, M. (2008). Incarceration as exposure: The prison, infectious disease, and other stress-related illnesses. *Journal of Health and Social Behavior*, 49(1), 56-71.
- <sup>58</sup> Choudhry, K., & Evans, N. (2014). Beyond equivalence of care in prison pharmacy. *International Journal of Pharmacy Practice*, 22(5), 363-365.
- <sup>59</sup> Liebling, A., & Maruna, S. (Eds.). (2013). *The effects of imprisonment*. Devon, UK: Willan Publishing.
- <sup>60</sup> Chapman, A. L., Specht, M. W., & Cellucci, T. (2005). Factors associated with suicide attempts in female inmates: The hegemony of hopelessness. *Suicide and Life-Threatening Behavior*, 35(5), 558-569.
- <sup>61</sup> Hammett, T. M., Roberts, C., & Kennedy, S. (2001). Health-related issues in prisoner reentry. *Crime & Delinquency*, 47(3), 390-409.
- <sup>62</sup> Fremont, A., & Bird, C. E. (2000). Social and psychological factors, physiological processes, and physical health. In C. E. Bird, P. Conrad, & A. M. Fremont (Eds.) *Handbook of Medical Sociology*. New Jersey: Prentice Hall.
- <sup>63</sup> Massoglia, M. (2008). Incarceration as exposure: The prison, infectious disease, and other stress-related illnesses. *Journal of Health and Social Behavior*, 49(1), 56-71.
- <sup>64</sup> Seligman, M. E. (1975). *Helplessness: On depression, development, and death*. San Francisco: W. H. Freeman.
- <sup>65</sup> Bonner, R. L. (2006). Stressful segregation housing and psychosocial vulnerability in prison suicide ideators. *Suicide and Life-Threatening Behavior*, 36(2), 250-254.
- <sup>66</sup> Andrews, D. A., & Bonta, J. (2010). Rehabilitating criminal justice policy and practice. *Psychology, Public Policy, and Law*, 16(1), 39.
- <sup>67</sup> Torrey, E. F., Zdanowicz, M. T., Kennard, A. D., Lamb, H. R., Eslinger, D. F., Biasotti, M. C., & Fuller, D. A. (2014). The Treatment of Persons with Mental Illness in Prisons and Jails: A State Survey. *Treatment Advocacy Center*. Retrieved from <http://www.tacreports.org/storage/documents/treatment-behind-bars/treatment-behind-bars-abridged.pdf>
- <sup>68</sup> Torrey, E. F., Zdanowicz, M. T., Kennard, A. D., Lamb, H. R., Eslinger, D. F., Biasotti, M. C., & Fuller, D. A. (2014). The Treatment of Persons with Mental Illness in Prisons and Jails: A State Survey. *Treatment Advocacy Center*. Retrieved from <http://www.tacreports.org/storage/documents/treatment-behind-bars/treatment-behind-bars-abridged.pdf>
- <sup>69</sup> Doris, J., & Glaze, L. E. (2006). Mental health problems of prison and jail inmates [Report No. NCJ 213600]. Washington, DC: U.S. Department of Justice, Office of Justice Programs, Bureau of Justice Statistics. Retrieved from <http://www.bjs.gov/content/pub/pdf/mhppii.pdf>
- <sup>70</sup> Torrey, E. F., Zdanowicz, M. T., Kennard, A. D., Lamb, H. R., Eslinger, D. F., Biasotti, M. C., & Fuller, D. A. (2014). The Treatment of Persons with Mental Illness in Prisons and Jails: A State Survey. *Treatment Advocacy Center*. Retrieved from <http://www.tacreports.org/storage/documents/treatment-behind-bars/treatment-behind-bars-abridged.pdf>
- <sup>71</sup> Phelan, M., Stradins, L., & Morrison, S. (2001). Physical health of people with severe mental illness: Can be improved if primary care and mental health professionals pay attention to it. *British Medical Journal*, 322(7284), 443.
- <sup>72</sup> Blitz, C. L., Wolff, N., & Shi, J. (2008). Physical victimization in prison: The role of mental illness. *International Journal of Law and Psychiatry*, 31(5), 385-393.
- <sup>73</sup> Wolff, N., Blitz, C. L., & Shi, J. (2007). Rates of sexual victimization in prison for inmates with and without mental disorders. *Psychiatric Services*, 58(6), 1087-1094.
- <sup>74</sup> Kupers, T. A., & Toch, H. (1999). *Prison madness: The mental health crisis behind bars and what we must do about it*. San Francisco: Jossey-Bass.
- <sup>75</sup> Wolff, N., Shi, J., Fabrikant, N., & Schumann, B. E. (2012). Obesity and weight-related medical problems of incarcerated persons with and without mental disorders. *Journal of Correctional Health Care*, 18(3), 219-232.

- <sup>76</sup>Abbott, A., & Lilly, E. (2009). Obesity in patients with severe mental illness: Overview and management. *Journal of Clinical Psychiatry, 70*(3), 12-21.
- <sup>77</sup>Shrivastava, A., & Johnston, M. E. (2010). Weight-gain in psychiatric treatment: risks, implications, and strategies for prevention and management. *Mens sana monographs, 8*(1), 53.
- <sup>78</sup>Baillargeon, J., Contreras, S., Grady, J. J., Black, S. A., & Murray, O. (2000). Compliance with antidepressant medication among prison inmates with depressive disorders. *Psychiatric Services, 51*(11), 1444-1446.
- <sup>79</sup>Binswanger, I. A., Redmond, N., Steiner, J. F., & Hicks, L. S. (2012). Health disparities and the criminal justice system: An agenda for further research and action. *Journal of Urban Health, 89*(1), 98-107.
- <sup>80</sup>Torrey, E. F., Zdanowicz, M. T., Kennard, A. D., Lamb, H. R., Eslinger, D. F., Biasotti, M. C., & Fuller, D. A. (2014). The Treatment of Persons with Mental Illness in Prisons and Jails: A State Survey. *Treatment Advocacy Center*. Retrieved from <http://www.tacreports.org/storage/documents/treatment-behind-bars/treatment-behind-bars-abridged.pdf>
- <sup>81</sup>Federal Bureau of Prisons (2013). Inmate statistics: Race. Obtained access on July 22, 2013 from <http://www.bop.gov/news/quick.jsp>
- <sup>82</sup>Centers for Disease Control and Prevention. (2011). *Minority Health: Black or African-American Populations*. Retrieved from <http://www.cdc.gov/minorityhealth/populations/REMP/black.html>
- <sup>83</sup>Centers for Disease Control and Prevention. (2011). CDC health disparities and inequalities report - United States, 2011. *Morbidity and Mortality Weekly Report, 60*. Retrieved from <http://www.cdc.gov/mmwr/pdf/other/su6001.pdf>
- <sup>84</sup>Harlow, C. W. (2003). *Education and Correctional Populations* [Report No. NCJ 195670]. Washington, DC: U.S. Department of Justice, Office of Justice Programs, Bureau of Justice Statistics. Retrieved from <http://www.bjs.gov/content/pub/pdf/ecp.pdf>
- <sup>85</sup>Andrews, D. A., & Bonta, J. (2010). Rehabilitating criminal justice policy and practice. *Psychology, Public Policy, and Law, 16*(1), 39.
- <sup>86</sup>Hammett, T. M., Roberts, C., & Kennedy, S. (2001). Health-related issues in prisoner reentry. *Crime & Delinquency, 47*(3), 390-409.
- <sup>87</sup>Hammett, T. M. (2006). HIV/AIDS and other infectious diseases among correctional inmates: Transmission, burden, and an appropriate response. *American Journal of Public Health, 96*(6), 974-978.
- <sup>88</sup>Massoglia, M. (2008). Incarceration as exposure: The prison, infectious disease, and other stress-related illnesses. *Journal of Health and Social Behavior, 49*(1), 56-71.
- <sup>89</sup>Freudenberg, N. (2001). Jails, prisons, and the health of urban populations: A review of the impact of the correctional system on community health. *Journal of Urban Health, 78*(2), 214-235.
- <sup>90</sup>Durose, M. R., Cooper, A. D., & Snyder, H. N. (2014). *Recidivism of Prisoners Released in 30 States in 2005: Patterns from 2005 to 2010* [Report No. NCJ 244205]. Washington, DC: U.S. Department of Justice, Office of Justice Programs, Bureau of Justice Statistics. Retrieved from <http://www.bjs.gov/content/pub/pdf/rprts05p0510.pdf>
- <sup>91</sup>Baillargeon, J., Giordano, T. P., Rich, J. D., Wu, Z. H., Wells, K., Pollock, B. H., & Paar, D. P. (2009). Accessing antiretroviral therapy following release from prison. *Journal of the American Medical Association, 301*(8), 848-857.
- <sup>92</sup>Belknap, J., & Whalley, E. (2013). The health crisis among incarcerated women and girls. In *Epidemiological criminology: Theory to practice* (pp. 95-105).
- <sup>93</sup>Braithwaite, R. L., Treadwell, H. M., & Arriola, K. R. (2005). Health disparities and incarcerated women: A population ignored. *American Journal of Public Health, 95*(10), 1679.
- <sup>94</sup>Braithwaite, R. L., Treadwell, H. M., & Arriola, K. R. (2005). Health disparities and incarcerated women: A population ignored. *American Journal of Public Health, 95*(10), 1679.
- <sup>95</sup>Bureau of Justice Statistics. (1993). *Bureau of Justice Statistics Bulletin: Prisoners in 1992*. Washington, DC: U.S. Department of Justice, Office of Justice Programs, Bureau of Justice Statistics. Retrieved from <http://www.bjs.gov/content/pub/pdf/p92.pdf>
- <sup>96</sup>Carson, E. A. (2014). Prisoners in 2013 [Report No. NCJ 247282]. Washington, DC: U.S. Department of Justice, Office of Justice Programs, Bureau of Justice Statistics. Retrieved from <http://www.bjs.gov/content/pub/pdf/p13.pdf>
- <sup>97</sup>Fickenscher, A., Lapidus, J., Silk-Walker, P., & Becker, T. (2001). Women behind bars: Health needs of inmates in a county jail. *Public Health Reports, 116*(3), 191.
- <sup>98</sup>Baldwin, K. M., & Jones, J. (2000). *Health issues specific to incarcerated women: Information for state maternal and child health programs*. Johns Hopkins University, School of Public Health, Women's and Children's Health Policy Center.
- <sup>99</sup>Massie, J. A. (2000). *Changes in weight experienced by female inmates in the Federal Bureau of Prisons*. Unpublished master's thesis, Uniformed Services University of the Health Sciences, Bethesda, Maryland.
- <sup>100</sup>Herbert, K., Plugge, E., Foster, C., & Doll, H. (2012). Prevalence of risk factors for non-communicable diseases in prison populations worldwide: A systematic review. *The Lancet, 379*(9830), 1975-1982.
- <sup>101</sup>Braithwaite, R. L., Treadwell, H. M., & Arriola, K. R. (2005). Health disparities and incarcerated women: A population ignored. *American Journal of Public Health, 95*(10), 1679.

<sup>102</sup> Banks, C. (2003). *Women in prison: A reference handbook*. Santa Barbara, California: ABC-CLIO, Inc.

<sup>103</sup> Belknap, J., & Whalley, E. (2013). The health crisis among incarcerated women and girls. In *Epidemiological criminology: Theory to practice* (pp. 95-105).

<sup>104</sup> Braithwaite, R. L., Treadwell, H. M., & Arriola, K. R. (2005). Health disparities and incarcerated women: A population ignored. *American Journal of Public Health, 95*(10), 1679.

<sup>105</sup> Clarke, J. G., & Adashi, E. Y. (2011). Perinatal care for incarcerated patients: A 25-year-old woman pregnant in jail. *Journal of the American Medical Association, 305*(9), 923-929.

<sup>106</sup> Doris, J., & Glaze, L. E. (2006). Mental health problems of prison and jail inmates [Report No. NCJ 213600]. Washington, DC: U.S. Department of Justice, Office of Justice Programs, Bureau of Justice Statistics. Retrieved from <http://www.bjs.gov/content/pub/pdf/mhppii.pdf>

<sup>107</sup> Braithwaite, R. L., Treadwell, H. M., & Arriola, K. R. (2005). Health disparities and incarcerated women: A population ignored. *American Journal of Public Health, 95*(10), 1679.

<sup>108</sup> Binswanger, I.A., Krueger, P.M., & Steiner, J. F. (2009). Prevalence of chronic medical conditions among prison inmates in the USA compared with the general population. *Journal of Epidemiological and Community Health, 63* (11), 912-919.

<sup>109</sup> Banks, C. (2003). *Women in prison: A reference handbook*. Santa Barbara, California: ABC-CLIO, Inc.

<sup>110</sup> Clarke, J. G., Hebert, M. R., Rosengard, C., Rose, J. S., DaSilva, K. M., & Stein, M. D. (2006). Reproductive health care and family planning needs among incarcerated women. *American Journal of Public Health, 96*(5), 834.

<sup>111</sup> Binswanger, I.A., Krueger, P.M., & Steiner, J. F. (2009). Prevalence of chronic medical conditions among prison inmates in the USA compared with the general population. *Journal of Epidemiological and Community Health, 63* (11), 912-919.

<sup>112</sup> Braithwaite, R. L., Treadwell, H. M., & Arriola, K. R. (2005). Health disparities and incarcerated women: A population ignored. *American Journal of Public Health, 95*(10), 1679.

<sup>113</sup> South, J., Bagnall, A. M., Hulme, C., Woodall, J., Longo, R., Dixey, R., ... & Wright, J. (2014). A systematic review of the effectiveness and cost-effectiveness of peer-based interventions to maintain and improve offender health in prison settings. *Health Sciences and Delivery Research, 2*(35), 35-56.



The Behavioral Health and Wellness Program's DIMENSIONS: Well Body Program is designed to train peers and providers to assist people to maintain a healthy lifestyle. The DIMENSIONS: Well Body Program Advanced Techniques training supports individuals to envision and achieve their Well Body goals through motivational engagement strategies, group process, community referrals, and educational activities. Contact the Behavioral Health and Wellness Program at [bh.wellness@ucdenver.edu](mailto:bh.wellness@ucdenver.edu) for more information.



## Behavioral Health & Wellness Program

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