Vulnerability Assessment Tool

for determining eligibility and allocating services and housing for homeless adults

Introduction

The DESC Vulnerability Assessment Tool provides a structured way of measuring a homeless person's vulnerability to continued instability. By rating a person's level of functioning or severity of condition across 10 domains, a comprehensive assessment of vulnerability can be reached and then compared with vulnerability assessments of other homeless people. The assessment process entails a structured interview followed by completion of the rating scales. The tool is designed for use by service workers accustomed to interacting directly with homeless people, and training is required to ensure reliable application of the tool.

Background and Development of the Tool

DESC was founded with a particular focus on the most vulnerable homeless people. Various DESC programs have long given priority for services to those homeless adults with greater presenting needs. Decisions about assignment of shelter beds, enrollment in mental health programs, and access to DESC's permanent supportive housing units have been guided by the idea that when resources are in short supply they should be reserved for people likely to be at relatively greater risk without the services. Initially, priority distinctions were based on basic characteristics. For example, people with mental illness were automatically prioritized for shelter beds. Similarly, people with mobility or sensory impairments were prioritized for beds, as were men over age 60, and women. This simple process worked well for DESC's programs until the number of people in the priority groups substantially surpassed the available service slots (shelter beds, etc.). At that point, additional assessment was needed to distinguish among the people who already were designated as our highest priority.

The original DESC Vulnerability Assessment Tool (VAT) was developed in 2003 by a group of staff familiar with the needs and characteristics of the long-term

homeless population served in DESC's shelter, housing, mental health, and substance abuse programs. Following the example of the Problems Severity Summary instrument, the DESC VAT was designed as a set of scales, each rating an individual's level of functioning or other characteristics for a specific domain. The domains were identified as the areas most germane to determining a homeless person's vulnerability. By looking at each area and assigning a score, an assessor would have a structured way of determining an objective overall rating of vulnerability for any given person. The first use of the tool was in DESC's shelter program as a way to determine which people already identified as among the priority focus of DESC would get the limited beds available. A small group of DESC staff were selected to conduct assessments using the tool, and procedures were created for assessing new shelter clients and assigning beds based on vulnerability assessment scores. Assessor feedback about the tool led to some refinements about how assessments were conducted, but the rating instrument remained unchanged for more than six years.

Over this time, DESC retained confidence that the tool was useful in helping to distinguish among the people needing shelter. This allowed beds to be assigned to individuals who were most at risk of being victimized or injured, of hurting themselves, of coming to harm simply because they could not take care of their basic needs, or of not being able to make progress without substantial support.

Additional Uses, Modification, and Evaluation of the Tool

DESC operates permanent supportive housing programs targeted to the highest-needs, most vulnerable homeless adults. As with DESC's shelter programs, the many permanent housing programs have limited capacity and cannot house nearly all the homeless people in need. Since the late 1990s, DESC has attempted to place into these housing units the homeless people with the greatest needs. Aiming to ensure that each vacancy was filled by the most vulnerable homeless person, housing staff would try to collect information from sources knowledgeable about the homeless people referred for housing. This typically involved conversations with case managers, outreach workers, shelter workers, and others, to get a sense of whose needs were relatively greatest. While this process resulted in very high-needs people accessing DESC's housing, it was cumbersome and somewhat subjective. As the use of the Vulnerability Assessment Tool became established in DESC's shelter, it became apparent that the tool could serve the same purpose in DESC's supportive housing: determine who to place first in the next available housing unit. In 2005, this became DESC's regular practice for selection of who will occupy its housing.

Over time, the existence of DESC's Vulnerability Assessment Tool became more widely known among homeless service providers locally and beyond. DESC received many requests for copies of the tool, and was informed of other providers using it for their own programs. As the tool began to show promise as an instrument that might be used more widely, DESC determined to evaluate the

tool's reliability and validity. In 2008, funding was acquired to allow DESC to hire a third-party research center to conduct the evaluation. Around this time, a different instrument focused on vulnerability also began to experience more widespread use. Developed by Common Ground in New York City, the Vulnerability Index distinguished among homeless people based on the presence of certain conditions found to be more associated with deaths of homeless people in research conducted by Dr. Jim O'Connell in Boston.

In comparison with the Common Ground tool, the DESC tool was relatively limited in its attention to health conditions. As such, and before proceeding with the evaluation of the tool, DESC reviewed the tool's elements with several experts outside DESC. Key informants included local physicians from Public Health and a major health clinic for homeless people, and substance abuse treatment experts. Dr. O'Connell from Boston also consulted with DESC to help us understand his research findings. These discussions with outside experts resulted in three modifications to the DESC Vulnerability Assessment Tool:

The scale related to health conditions was enhanced to have a greater emphasis on the range of likely health problems combined with how the individual is following up with care;

1. A scale related to mortality risk was added. This scale largely follows the Common Ground Vulnerability Index, although some of the listed conditions were changed to reflect mortality risks among homeless people in Seattle.

2. A second scale related to substance use was added to better capture relapse vulnerability among people in addiction recovery.

The modified version of the DESC Vulnerability Assessment Tool was put into use in 2009, then evaluated by researchers from the Washington Institute for Mental Health Research and Training, affiliated with the University of Washington. The results, reported in March 2010, were very promising, showing the tool had strong properties of reliability and validity. Recommendations from the evaluation were to enhance the training manual and interview script, and to merge the substance use scales into a single item. These recommendations were followed, resulting in the current scale of 10 items and the accompanying training manual and interview script

Broader Systems Issues and Limitations

Policy priorities around access to services and housing for homeless people vary widely. Acquiring services may be influenced by date of request (first come-first served), length of homelessness, presence of certain conditions (e.g., HIV), high utilization of expensive crisis services, or other factors. While these approaches may have reasonable rationales behind them, the result is some highly fragile people reluctant to enroll in formal care programs are unlikely to be prioritized for housing unless their level of vulnerability is taken into account. DESC's Vulnerability Assessment Tool provides a way to identify those people with the greatest overall needs.

While there is likely a high correlation between some factors (such as long-term homelessness and high crisis service utilization) and high vulnerability, the overlap isn't complete. As such, people assessed as highly vulnerable are not necessarily also high utilizers of other services, for example. Likewise, high utilizers of crisis services are not necessarily highly vulnerable. If a policy priority to is house high systems utilizers who have the greatest needs, the Vulnerability Assessment Tool allows for the second part of that equation to be determined so that resources are allocated to people who need them the most.

The DESC Vulnerability Assessment Tool allows providers to do two things:

1. To develop an objective sense of a person's vulnerability to continued instability.

2. To distinguish among the many homeless adults in the community who have also had a vulnerability assessment.

Assessment scores can then be used in the allocation of resources. DESC uses them to make sure that shelter beds and supportive housing units are reserved first for the homeless people with the greatest needs. While an assessment score offers a view of a person's relative overall set of needs, it does not define the level or type of support a homeless person needs. Additional research may reveal whether assessment scores can be used to determine the best type of housing for an individual, but until that happens the amount of support, supervision, medical care, etc., that any given person needs will have to be determined separately from the vulnerability assessment process. Because this type of research has not yet been conducted, care should be taken to avoid using assessment scores for other purposes than in determining relative overall need. A person with a higher score is deemed to be more vulnerable to continued instability, but that does not mean she or he requires a more intensive level of services or supervision than someone with a lower score. As such, assessment scores alone should not be used to determine that a person's needs are beyond the scope of a particular service or housing program.

Using the DESC Vulnerability Assessment Tool

Agencies that intend to use the Vulnerability Assessment Tool described in this manual agree to do the following:

1. **Receive training by DESC in the proper implementation of the Vulnerability Assessment Tool.**
2. **Follow DESC's instructions for implementation of the tool, including limiting the pool of assessors to the minimum necessary.**
3. **Credit DESC in your use of the tool.**
4. **Provide feedback and/or de-identified data to DESC to assist with tool improvements**

The Domains of Vulnerability

At the heart of the DESC Vulnerability Assessment tool are the ten separate domains that interviewers use to measure client vulnerability. The domains are as follows:

1. Survival Skills
2. Basic Needs
3. Indicated Mortality Risks
4. Medical Risks
5. Organization/Orientation
6. Mental Health
7. Substance Use
8. Communication
9. Social Behaviors
10. Homelessness

Each domain represents an area that assesses a homeless person's limitations in meeting his or her own needs. Over the years, DESC determined that the above domains are key to understanding a homeless person's risk for victimization or death on the street. The numerical score that is applied to each domain provides a way to rank a homeless person's vulnerability when compared to other clients who have been interviewed and assessed. Once a community of homeless adults have been assessed, those with the highest scores are considered to be at highest risk and can be prioritized for services.

DESC's Vulnerability Assessment Tool for Individuals Coping with Chronic Homelessness: A Psychometric Analysis

The Washington Institute for Mental Health Research and Training analyzed the psychometric properties of DESC's internally developed Vulnerability Assessment Tool (VAT) for chronically homeless persons. The following is a brief summary of a set of psychometric analyses conducted on the scale.

METHOD

Six highly skilled DESC staff were assessors during the study period. Follow-up interviews were conducted one month later. All participants were homeless at the time of first assessment. The sample (N=277) was predominately heterosexual men, military veterans, and disproportionately twice as representative of ethnic minorities. Finally, participants subsisted on little to no monthly income. See the full report for comprehensive results, tables, and explanations.

FINDINGS

Reliability Analyses: To robustly assess the reliability of the instrument, four analyses were conducted. The first analysis reveals that each item consistently relates to the remainder of the scale (Chronbach's $\alpha = .66$; Cronbach, 1951), and only two items, if removed, would offer slightly nominal improvements (i.e., Medical Risks & Substance Use - B). Inter-rater reliability (i.e., kappa statistic; Cohen, 1960), the level of agreement between coders while accounting for chance, was calculated for ten group coded videotaped interviews. After removing the two most extreme scores, the assessors were found to code in a similar manner at a "good" level based upon common heuristics, although with some room for improvement ($K_{avg.} = .67$). A test-retest analysis of the instrument reliability across the one-month gap, using a Spearman-Brown Correlation Method for equal weightings across both time points, derived strong and significant coefficient ($\rho = .89$ [$p<.001$]). Such a strong consistency in the temporal nature of the instrument tempers all other moderate findings and offers a rather positive outlook for the scale.

Validity Analysis: The assessment team prepared a subjective accounting of their observations for participants, including details of the individual's current state in a manner that mirrored the VAT items. A random set of narratives (n = 166) were coded and regressed upon the VAT items and total score to test concurrent convergent validity of the instrument. Only assessments from the baseline collection period were used. A correlation matrix was created using Spearman bivariate correlations. The correlation matrix reveals a consistently high relationship between each item on the VAT and its corresponding score on the coded narratives (.54-.83), as well as the total scaled scores (.83; all coefficients referenced were significant). This evidence suggests the existence of strong convergent and concurrent validity.

Conclusions: All traditional assessments of the strength of a measurement scale suggest a positive outcome for this evaluation of the VAT. Regarding the various facets of the reliability there was a positive outlook. The instrument was well structured with items that all predict each other and the overall VAT in a consistent fashion. Likewise, the assessors all seemed to code in a consistent fashion between any given pair of them. Finally, individual participant scores appear to be strongly connected across a brief, yet meaningful period of time during which they begin to access services.

One last critical point for the overall picture of the VAT was a test to see how well this scale related to the assessors' personal attributions of the participants based upon their skilled professional insight. The assessors' narratives were highly related to the VAT scores, indicating that not only does the VAT behave in a promising and reliable manner, but there is also a high likelihood that this instrument is a strong valid measurement of level of functioning and vulnerability to continued instability. Overall, this is a strong initial showing for the VAT and assures us that its continued use in the field at this time is worthwhile. It will be informative to continue the examination to ascertain how the data might vary by region or population, but at this time the psychometric value of the VAT to the field is immeasurable.

DESC
opening doors to end homelessness

VULNERABILITY ASSESSMENT TOOL

Client Name_____ **Staff Name**_____

Survival Skills

Vulnerability, safety, dependency on others, ability to maneuver independently in safe manner, judgment

No evidence of vulnerability	Evidence of mild vulnerability	Evidence of moderate vulnerability	Evidence of high vulnerability	Evidence of severe vulnerability
Strong survival skills; capable of networking and self advocacy; knows where to go and how to get there; needs no prompting regarding safe behavior	Has some survival skills; is occasionally taken advantage of (e.g. friends only present on paydays); needs some assistance in recognizing unsafe behaviors and willing to talk about them.	Is frequently in dangerous situations; dependent on detrimental social network; communicates some fears about people or situations; reports being taken advantage of (e.g. gave $ to someone for an errand and person never returned or short changed)	Is a loner and lacks "street smarts"; possessions often stolen; may be "befriended" by predators; lacks social protection; presents with fearful, childlike or helpless demeanor; has marked difficulty understanding unsafe behaviors; is or was recently a DV victim; may trade sex for money or drugs	Easily draws predators; vulnerable to exploitation; has been victimized regularly (e.g. physical assault, robbed, sexual assault); often opts for the street to shelters; no insight regarding dangerous behavior (e.g. solicitation of sex/drugs); clear disregard for personal safety (e.g. walks into traffic)
1	**2**	**3**	**4**	**5**

Comments or observations about survival skills:

Basic Needs

Ability to obtain/maintain food, clothing, hygiene, etc.

No Trouble Meeting Needs	Mild Difficulty Meeting Needs	Moderate Difficulty Meeting Needs	High Difficulty Meeting Needs	Severe Difficulty Meeting Needs
Generally able to use services to get food, clothing, takes care of hygiene, etc.	Some trouble staying on top of basic needs, but usually can do for self (e.g. hygiene/clothing are usually clear/good)	Occasional attention to hygiene; has some openness to discussing issues; generally poor hygiene, but able to meet needs with assistance (e.g. prompting and I&R (Information and Referral)	Doesn't wash regularly; uninterested in I&R or help, but will access services in emergent situations; low insight re. needs	Unable to access food on own; very poor hygiene/clothing (e.g. clothes very soiled, body very dirty, goes through garbage & eats rotten food) resistant to offers of help on things; no insight
1	**2**	**3**	**4**	**5**

Comments or observations about basic needs:

Client Name_____**Staff Name**_____

Indicated Mortality Risks

Mortality Risks: 1. More than three hospitalizations in 12 months; 2. More than three ER visits in previous three months; 3. Aged 60 or older; 4. Cirrhosis of the liver; 5. Renal disease; 6. Diabetes; 7. Heart disease; 8. Tri-morbidity, co-occurring psychiatric, substance abuse and chronic medical condition.

Has none of the 8 identified risk factors	Has 1 of the identified risk factors	Has 2 of the identified risk factors	Has 3 of the identified risk factors	Has 4+ of the identified risk factors
1	**2**	**3**	**4**	**5**

Comments or observations about indicated mortality risks:

Medical Risks

Medical conditions that impact person's ability to function.

No Impairment	**Minor or temporary health problem(s)**	**Stable significant medical or physical issue(s), or chronic medical condition(s) that is being managed**	**Chronic medical condition(s) that is not well-managed or *significant* physical impairment(s)**	**Totally neglectful of physical health, extremely impaired by condition, serious health condition(s)**
No health complaints; appears well; would likely access medical care if needed	Cast or splint but able to take care of daily activities; recovering from minor surgery and doing well with self-care; acute medical problem such as a respiratory or skin infection but takes medications; follows up with medical provider	Chronic but stable medical problems such as diabetes, emphysema, high blood pressure, heart disease, seizure disorder, Hepatitis C or B, HIV disease; cancer in remission; has clinic or doctor and takes meds more often than not; smaller or larger stature/size making person vulnerable; sight or hearing impaired; has not been in hospital for overnight stay in last 3 months; OR over 60 years old w/o reported conditions but does not access care even for routine checkups	Poorly managed diabetes or hyper-tension, undergoing treatment for Hep C; needs home oxygen; liver failure; kidney failure requiring dialysis, sleep apnea requiring C-PAP; HIV disease not adequately treated; dementia; severe arthritis affecting several joints, pregnancy, frequent asthma flares, recurrent skin infections, cancer. Symptoms without known explanation: swelling, untreated open wounds, shortness of breath, recurrent chest pain, unexplained weight loss, chronic cough, cognitive impairment, incontinent of urine or stool. Not taking meds as prescribed or frequently loses them; can't name doctor or last time seen; hospitalized in last 3 months; illiterate or non-English speaking.	Untreated AIDS, terminal illness that is worsening; missing limb(s) with significant mobility or life activity issues; obvious physical problem that is not being cared for such as large sores or severe swelling. Blind, deaf and/or mute, severe dementia, uncontrolled diabetes, refuses to seek care; breathing appears difficult with activity; can't name or doesn't seek regular medical care; more than one hospitalization in past year.
1	**2**	**3**	**4**	**5**

Comments or observations about medical risks:

Client Name_____ **Staff Name**_____

Organization/Orientation

Thinking, developmental disability, memory, awareness, cognitive abilities – how these present and affect functioning.

No impairment	Mild impairment	Moderate impairment	High impairment	Severe impairment
Good attention span; adequate self care; able to keep track of appointments	Occasional difficulty in staying organized; may require minimal prompting re: appointments; possible evidence of mild developmental disability; dementia or other organic brain disorder; some mild memory problems	Appearance is sometimes disorganized; has a significant amount of belongings making mobility challenging; occasional confusion w/ regard to orientation; moderate memory or developmental disability problems	Disorganized or disoriented; poor awareness of surroundings; memory impaired making simple follow-through difficult	Highly confused; disorientation in reference to time, place or person; evidence of serious developmental disability, dementia or other organic brain disorder; too many belongings to manage; memory fully or almost or absent / impaired
1	**2**	**3**	**4**	**5**

Comments or observations about organization/orientation:

Mental Health

Issues related to mental health status, MH services, spectrum of MH symptoms & how these impair functioning.

No MH issues	Mild MH Issues	Moderate MH issues	High MH issues	Severe MH needs
	Reports feeling down about situation, circumstances; (e.g. situation depression)	Reports having MH issues, but does not talk about them; reports having service connection already in place; may be taking prescribed medications	Tenuous service engagement; possibly not taking medications that are needed for MH; not interested in services due to mental illness / low insight	No connection to services (but clearly needed), extreme symptoms that impair functioning (e.g. talking to self, distracted, severe delusions/ paranoia, fearful/phobic, extreme depressed or manic mood); no insight regarding Mental Illness
1	**2**	**3**	**4**	**5**

Comments or observations about mental health:

Client Name_____ **Staff Name**_____

Substance Use

Issues related to substance use, services, spectrum of substance use & how use impairs functioning

No or Non-Problematic Substance Use	Mild Substance Use	Moderate Substance Use	High Substance Use	Severe Substance Use
No substance use or strictly social – having no negative impact on level of functioning.	Sporadic use of substances not obviously affecting level of functioning; is aware of substance use, still able to meet basic needs most of the time	Ninety (90)-180 days into addiction recovery; COD w/o any follow-up care; relapse risk still present. OR Substance use affecting ability to follow through on basic needs; has some support available for substance use issues but may not be actively involved; some trouble making progress in goals (e.g. could be a binge user.)	In first 90 days of CD treatment or addiction recovery; still enmeshed in alcohol/drug using social group; high relapse potential. OR Use obviously impacting ability to gain/maintain functioning in many areas, (e.g. clear difficulty following through with appointments, self-care, interactions with others, basic needs); not interested in support for substance use issues but this may be due to low insight or other reasons (e.g. mental illness)	Active addiction with little or no interest in CD treatment involvement. Obvious deterioration in functioning (e.g. MH, due to Sub Use); severe symptoms of both substance use & mental illness; low or no insight into substance use issues; clear cognitive damage due to substances; no engagement with substance use support services (and clearly needed)
1	**2**	**3**	**4**	**5**

Comments or observations about substance use OR observed suspected signs of using drugs/alcohol:

Communication

Ability to communicate with others, when asked questions, initiating conversations.

No communication barrier	Mild communication barrier	Moderate communication barrier	High level communication barrier	Severe communication barrier
Has strong and organized abilities; no language barriers; able to communicate clearly with staff about needs	Has occasional trouble communicating needs; language barrier may be an issue; occasionally reacts inappropriately when stressed	Poor attention span; withdrawn but will interact with staff/service providers when approached; pressured speech; very limited English	Physical impairment making communication very difficult (e.g. hearing impaired & unable to use ASL); unwilling/unable to communicate w/ staff (e.g. shy, poor or no eye contact); doesn't speak English at all	Significant difficulty communicating with others (e.g. mute, fragmented speech); draws attention to self (e.g. angry talk to self/others); refuses to talk to staff when approached; may leave to avoid talking to provider
1	**2**	**3**	**4**	**5**

Comments or observations about communication:

Client Name_____ **Staff Name**_____

Social Behaviors

Ability to tolerate people & conversations, ability to advocate for self, cooperation, etc.

Predatory behaviors, and/or no problems advocating for self	**Mildly problematic social behaviors**	**Moderately problematic social behaviors**	**Highly problematic social behaviors**	**Severely problematic social behaviors**
Has a hx of predatory behavior; is observed to be targeting vulnerable clients to "befriend"; uses intimidation to get needs met (e.g. threatening and menacing to staff/clients); more than adequately advocates for own needs, if not overly so	Mostly "gets along" in general; if staff need to approach person, s/he can tolerate input & respond with minimal problems; may need repeated approaches about same issue even though it seems s/he "gets it"	Has some difficulty coping with stress; sometimes has angry outbursts when in contact with staff/others; some non-cooperation problems at times	Often has difficulty engaging positively with others; withdrawn and isolated; has minimal insight regarding behavior and consequences; has few social contacts; negative behavior often interferes with others in surrounding; often yells, screams or talks to self	Responds in angry, profane, obscene or menacing verbal ways; may come across as intimidating and off-putting to providers; may provoke verbal and physical attacks from other clients; has significantly impaired ability to deal with stress; has no apparent social network
1	**2**	**3**	**4**	**5**

Comments or observations about social behaviors:

Homelessness

Length of Time Homeless

Newly Homeless	**Moderate hx of homelessness**	**Chronically homeless**
Has been homeless less than 1 month; new to the area (e.g. moved here looking for work or only here for the season)	Has been homeless for 1-12 months; few prospects for housing at present	Has been homeless for 1 year + or has had at least 4 episodes of homelessness within the last 3 years; may have no options for housing due to history; ability to participate in process, etc.
1	**2**	**3**

Comments or observations about homelessness: