



THE TAY TRIAGE TOOL

A Tool to Identify Homeless Transition Age Youth Most in Need of Permanent Supportive Housing

*Eric Rice, Ph.D.
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With support from the Conrad N. Hilton Foundation and the W.M. Keck Foundation, CSH commissioned Dr. Eric Rice to develop a **TAY Triage Tool** for prioritizing homeless transition age youth (TAY) age 18-24 for supportive housing. The tool was developed in consultation with providers of housing and services to homeless youth, consultation with stakeholders from youth systems of care, and site visits with six providers of permanent supportive housing to youth. Data from Rice's NIMH-funded survey of 646 homeless youth, recruited from drop-in centers in Los Angeles from 2011 to 2012 was used to conduct the subsequent analyses. The results of the analysis were then vetted with both sets of stake holders. The resulting tool consists of six items.

The six items are:

1. Have you ever become homeless because:
I ran away from my family home, group home, or foster home;
2. Have you ever become homeless because:
There was violence at home between family members;
3. Have you ever become homeless because:
I had differences in religious beliefs with parents/guardians/caregivers;
4. How old were you when you tried marijuana for the first time?;
5. Before your 18th birthday, did you spend any time in jail or detention?;
6. Have you ever been pregnant or got someone else pregnant?

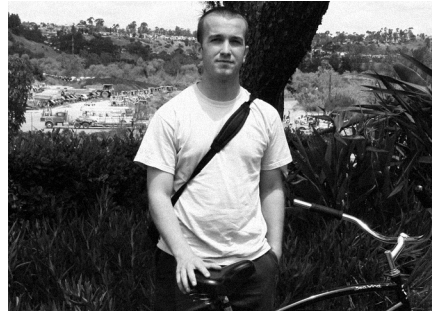
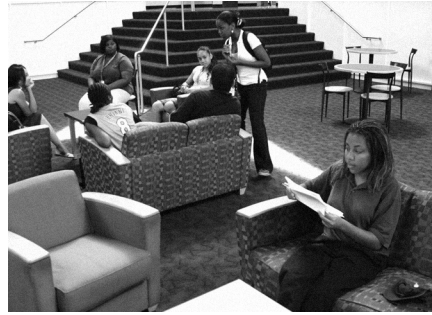


One of the great benefits of the **TAY Triage Tool** is its ability to quickly and easily identify the most vulnerable youth. With only these 6 items, which are relatively non-invasive, the tool identifies youth who are vulnerable to many problems and suffering from a great many issues.

There were several background characteristics that differed among those youth identified as highest risk (endorsing 4, 5 or 6 of the items) and not identified by the tool. 50% of the highest risk youth reported being a part of the foster care system, compared to 36% of those not. Among those identified as highest risk, 43% do not have a high school diploma or GED relative to 34% not identified. While equal numbers of those identified and those not had legal employment, more of the youth identified as highest risk reported having a job that was “under the table”. And perhaps most striking, 87.7% of youth identified as highest risk reported having biological children compared to only 39.5% of those who were not identified.

EXECUTIVE SUMMARY

Some current substance use was significantly higher among those who were identified as highest risk. In particular, any use of methamphetamine in the prior 30 days was reported by 40.9% of youth identified as highest risk, relative to only 23.7% among those unidentified. Using marijuana more than 40 times in the past month was reported by 66.7% of youth identified as highest risk whereas 45.9% of unidentified youth reported this same level of use.



Mental health problems and traumatic experiences were also more common among those youth identified as highest risk. 66.7% of highest risk youth can be considered depressed whereas 51.2% of those unidentified were depressed. Likewise, posttraumatic stress was reported by 46.7% of those youth identified as highest risk, relative to 30.4% of those who were unidentified. Among those youth identified as highest risk, 64.6% reported physical abuse, 46.7% reported being sexually molested, and 42.6% reported being forced to have sex against their will, compared to 39.5% reporting abuse, 23.3% molestation, and 19% reporting sexual assault, respectively among those youth not identified.

In practical application, we recommend prioritizing homeless youth who score 4 or higher for supportive housing. A guide for utilizing the **TAY Triage Tool** is in development.

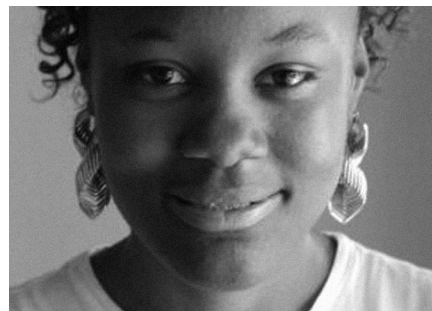
What is a triage tool for transition age youth?

In the most basic of terms a triage tool is an assessment of vulnerability used to assign housing priorities for street-living persons. Several indices have been created that target homeless adults neediest of permanent supportive housing. To our knowledge, this is the first attempt to create a youth-specific tool, designed to provide priorities for placing youth into permanent supportive housing. Vulnerability assessments for adults have relied on associations with pre-mature mortality (Swanborough, 2011; Juneau Economic Development Council, 2009; Hwang, Lebow, Bierer et al., 1998) and greatest system costs (Economic Roundtable, 2011). “Transition age youth,” youth age 18 to 24, are unlikely to experience health-related premature mortality, nor are they likely to have yet incurred enormous system costs.

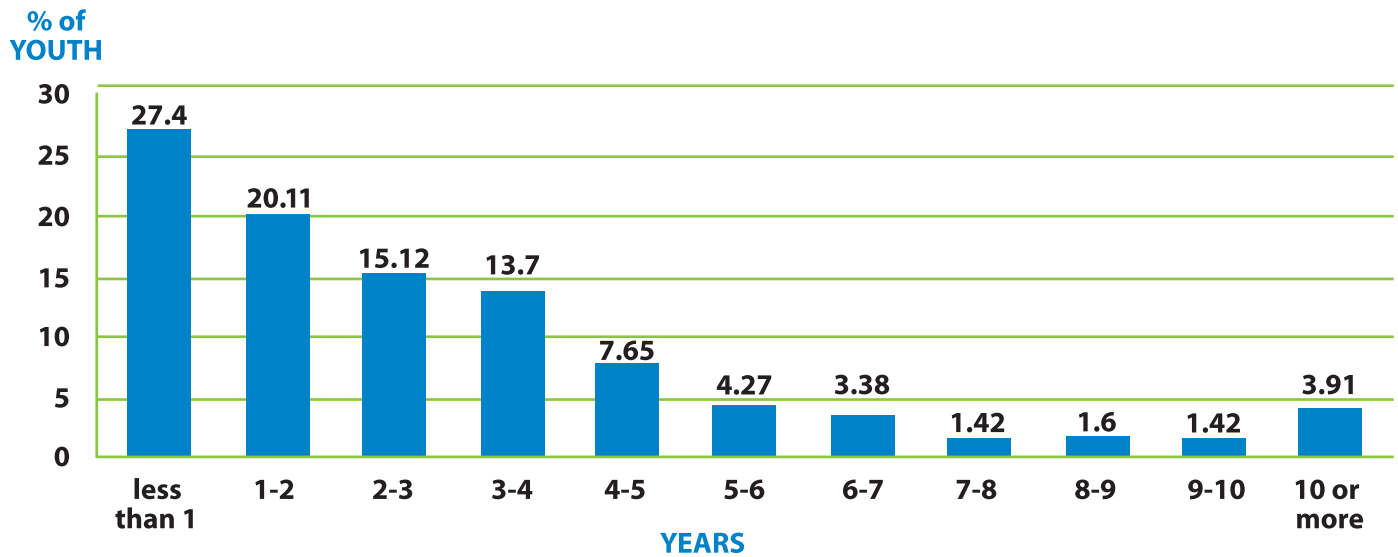
The critical question then becomes, “Vulnerable to what?” Unlike the adult tools, which are based on developing predictors of system cost or pre-mature mortality, the Youth Triage Tool is “anchored” in assessing which youth are most likely to experience long-term homelessness. This decision was arrived at in consultation with key stake holders in the systems of care working with transition age homeless youth. Providers of shelters, transitional housing, permanent supportive housing for TAY, as well as homeless youth services providers all met with us to discuss what issues were most salient for this age-group. A separate discussion was held with a Research Advisory Council, consisting of representatives from foster care, juvenile justice, housing, and mental health systems of care; philanthropic organizations;

and experts in the fields of homelessness and vulnerable youth populations. Both groups concluded that prevention of long term, chronic homelessness was the outcome most desired for TAY and hence, vulnerability to long-term homelessness was deemed the most appropriate focus of the triage tool development.

We determined that five or more years of total time homeless would be our working definition of long-term homelessness. Data from Rice’s NIMH-funded survey of 646 homeless youth, recruited from drop-in centers in Los Angeles from 2011 to 2012 was used. 18% of the youth reported five or more years of homelessness. The Housing and Urban Development definition of chronic homelessness “either (1) an unaccompanied homeless individual with a disabling condition who has been continuously homeless for a year or more, OR (2) an unaccompanied individual with a disabling condition who has had at least four episodes of homelessness in the past three years,” includes far too many youth, as 41.64% of the sample fit this definition based only on being able to count youth with PTSD or Depression and no other disabling conditions. “Long-term” homelessness for TAY should not be confused with chronic homelessness, although only 6.4% of the sample qualified as “long-term” homeless but not chronic homeless.



Length of Time Experiencing Homelessness



Based on literature on vulnerability and risk-taking among homeless youth (e.g. Milburn, Rice, Rotheram-Borus et al., 2009; Toro, 2011), we assessed a large number of possible variables to be included in the triage tool. We wanted to avoid complex issues of causal interpretation where possible. We attempted whenever possible, to focus on specifications of variables that likely preceded long-term homelessness. For example, rather than assessing current levels of alcohol use, we assessed if the youth had consumed alcohol at age 12 or younger. High levels of alcohol use could lead to long-term homelessness, but just as easily long-term homelessness could lead to high levels of alcohol use. Whereas, using prior to age 12 is unlikely to be an effect of long-term homelessness among a sample of 18 to 24 year olds.

We examined:

- 19 different reasons for becoming homeless (e.g. “I experienced sexual abuse.” “my desire for adventure”)
- Alcohol use, marijuana use, first sexual experience at age 12 or younger
- Foster care involvement, incarceration prior to age 18
- 8 different traumatic experiences (e.g. “being hit, punched or kicked very hard at home.”)
- A brief 4-item screen for PTSD symptoms
- Employment, high school drop out, HIV positive status, testing positive for other STI’s, sleeping on the streets currently, having children, being pregnant (or impregnating someone), trading sex for money, food, drugs, housing or other resources
- Sexual orientation, gender, race/ethnicity

THE TRIAGE TOOL

The final variables which we suggest using as part of the Triage Tool were selected in a two stage statistical analysis process that is detailed in the Statistical Appendix. Through this analysis, a set of 6 items was selected which constitute the **TAY Triage Tool**. The Odds Ratio can be interpreted as in the following example: TAY who reported using marijuana at age 12 or younger were 3.05 times more likely to experience long-term homelessness, compared to those youth who used after age 12 or never used.

The six items most associated with risk for experiencing 5+ years homeless

Reasons for becoming homeless:	Odds Ratio:
1. Ran away from family home, group home, or foster home	1.65
2. There was violence at home between family members	2.23
3. Had differences in religious with parents/guardians/ caregivers	2.62
Early risk taking:	
4. First marijuana use at age 12 or younger	3.05
5. Incarcerated before age 18	1.86
Other issues:	
6. Pregnant or have gotten someone pregnant	1.94

Note: The analysis controls for age, gender, sexual orientation, foster care history, and race. Confidence interval is 95% ($p < .05$).

CASE 1

Triage Tool Score: 6

Age: 22

Sex: Male to Female Transgender

Ethnicity: White

Sexual Orientation: Gay

Place of Origin: Los Angeles

Education: High school dropout

Foster care history: Starting age 4, 10+ placements

Employment: Not working

Total Years Homeless: 8

Current Housing: Staying with a friend

Number of Biological Children: 1

Mental Illness: Depressed

Substance Use: Daily marijuana user, daily methamphetamine user

Traumatic Experiences: Physical abuse, witnessed family violence, violent death or serious injury of loved one, has traded sex for money/food/drugs/ place to stay

CASE 1 is a 22 year old, White, male-to-female transgender youth. She has been homeless for more than eight years, is temporarily staying with friends, and is a high school drop out. Her first of more than 10 foster care placements occurred at age 4. She is a daily marijuana and methamphetamine user. She surpassed the clinical cut point for depression on the CES-D scale and she has been the victim of physical abuse, witnessed violence between family members and has participated in survival sex.

How many endorsements is enough?

It is unclear exactly what the cut point should be using only the data available. It does seem most appropriate to prioritize youth who endorse more items over those youth who endorse fewer items. An accumulation of these items was also examined in a separate model. We found that with each item endorsed the likelihood of suffering long-term homelessness doubled (OR=2.1, $p<.001$). Notice that 83% of youth endorse 1 or more items, were as only slightly more than 2% endorsed 5 or 6 of these items.

To assess the validity of the **TAY Triage Tool**, an initial examination of those who endorsed the greatest number of items was conducted. The section which follows details the results of this examination.

Percentage of Youth by Number of Endorsements

0	16.87%
1	28.33%
2	26.32%
3	18.27%
4	7.89%
5	2.01%
6	0.31%

CASE 2

Triage Tool Score: 6

Age: 19

Sex: Male

Ethnicity: White

Sexual Orientation: Heterosexual

Place of Origin: Southern California outside of Los Angeles

Education: High school dropout

Foster Care History: Starting age 6, 5-9 placements

Employment: Not working

Total Years Homeless: 4

Current Housing: Sleeping on the streets

Number of Biological Children: 0

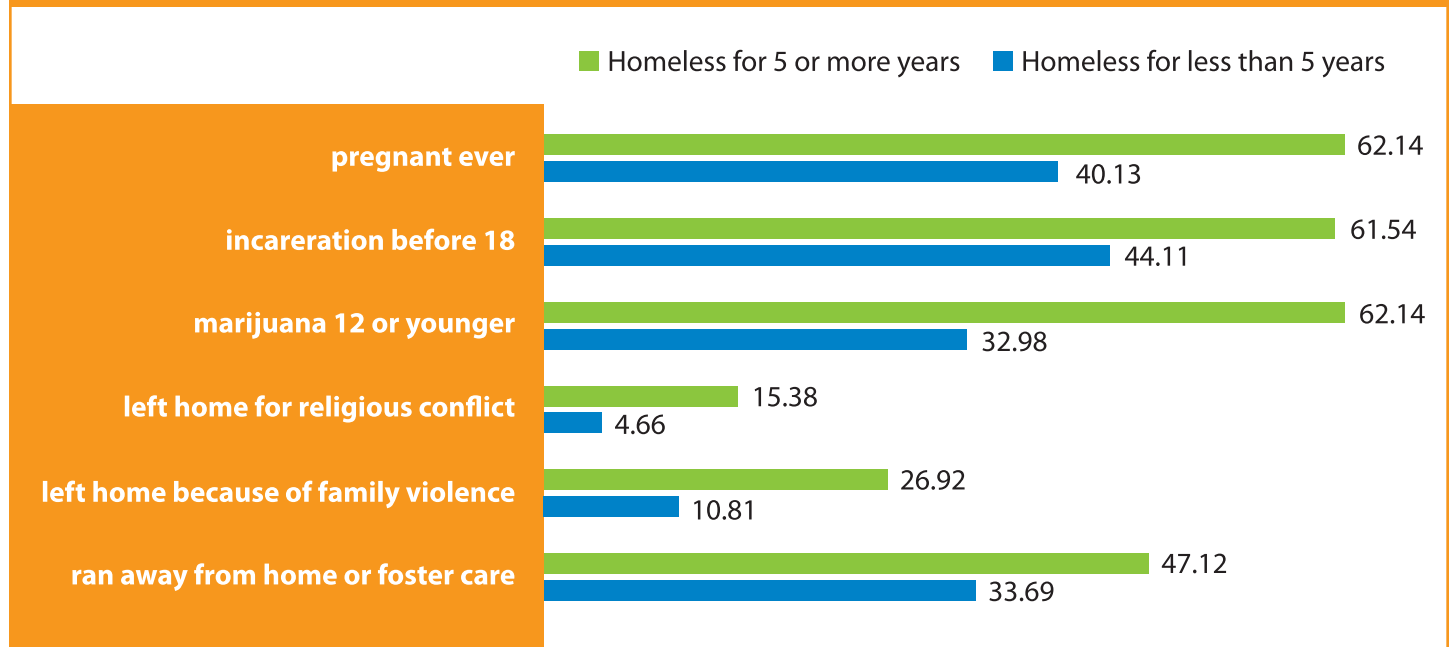
Mental Illness: Depressed

Substance Use: Daily marijuana user; used heroin, cocaine, and methamphetamine in past 30 days, injects drugs

Traumatic Experiences: Experienced physical violence, witnessed violence

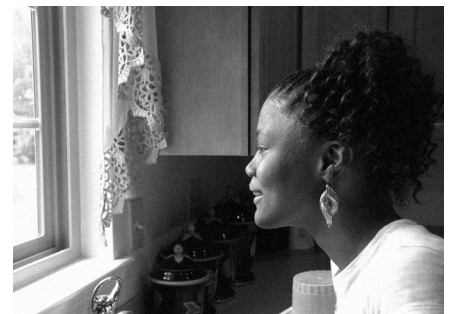
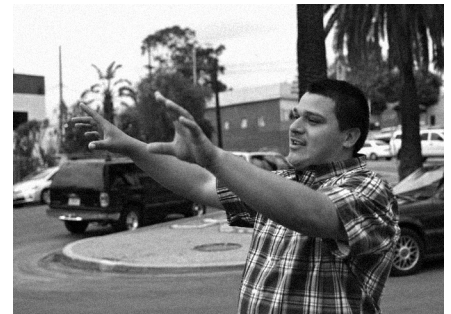
CASE 2 is a 19 year old, heterosexual, White male. He has been homeless for four years, is currently sleeping on the streets and is a high school drop out. He also was placed in foster care at a young age (6 years old) and reported between 5 and 9 foster care placements. He is currently not working, is a daily marijuana user, a frequent but not daily user of heroin, methamphetamine, and cocaine. He is also a current injection drug user. He also surpassed the CES-D depression threshold and has both experienced and witnessed physical violence.

Percentage of homeless TAY who experienced these issues



Highest Risk Youth

One of the great benefits of the **TAY Triage Tool** is its ability to quickly and easily identify the most vulnerable youth. With only these 6 items, which are relatively non-invasive, the tool identifies youth who are vulnerable to many problems and suffering from a great many issues. The six cases provided help to illustrate this. In the original data set 15 of the 646 youth scored either 5 or 6 on the original tool. 6 of these 15 youth are profiled.



These profiles of specific youth provide a more personalized understanding of the type of youth who are identified by the **TAY Triage Tool**. These youth all experience a large number of complex problems, aggravated by long street stays, many having histories of foster care involvement and current substance use problems.

The Diagnostic Appendix provides a more comprehensive examination of the characteristics of the youth who are identified by the tool. The tables in the appendix provide a breakdown of the percent of the sample who experienced particular vulnerabilities and compares this to the percentage of youth identified as highest risk (scoring 4, 5 or 6) by the Triage Tool.

There were several background characteristics that differed among those youth identified as highest risk and not identified by the tool. 50% of the highest risk youth reported being a part of the foster care system, compared to 36% of those not ($p < .05$). Among those identified as highest risk, 43% do not have a high school diploma or GED relative to 34% not identified ($p < .01$). While equal numbers of those identified and those not had legal employment, more of the youth identified as highest risk reported having an job that was “under the table” (16.7% vs. 6.8%, $p < .01$). And perhaps most striking, 87.7% of youth identified as highest risk reported having biological children compared to only 39.5% of those who were not identified ($p < .001$).

CASE 3

Triage Tool Score: 5

Age: 23

Sex: Female

Ethnicity: Latino

Sexual Orientation: Heterosexual

Place of Origin: Los Angeles

Education: High school dropout

Foster Care History: Starting age 11, 5-9 placements

Employment: Illegal employment

Total Years Homeless: 10

Current Housing: Sleeping in automobile

Number of Biological Children: 2

Mental Illness: Depressed

Substance Use: Daily marijuana user; daily methamphetamine user, injects drugs

Traumatic Experiences: Witnessed violence, violent death or serious injury of loved one

CASE 3 is a 23 year old, heterosexual Latina. She has two biological children, neither of which in her custody. She is also a high school dropout and she has a job that is “under the table”. Her foster care involvement began at age 11 and she reported 5 to 9 total placements. She is currently living in a car and has been homeless for more than 10 years. She is a daily methamphetamine user, who injects. She also qualifies as depressed and has experienced several traumatic events.

Some current substance use was significantly higher among those who were identified as highest risk. In particular, any use of methamphetamine in the prior 30 days was reported by 40.9% of youth identified as highest risk, relative to only 23.7% among those unidentified ($p<.01$). Using marijuana more than 40 times in the past month was reported by 66.7% of youth identified as highest risk whereas 45.9% of unidentified youth reported this same level of use. ($p<.001$).

Mental health problems and traumatic experiences were also more common among those youth identified as highest risk. 66.7% of highest risk youth can be considered depressed whereas 51.2% of those unidentified were depressed ($p<.001$). Likewise, posttraumatic stress was reported by 46.7% of those youth identified as highest risk, relative to 30.4% of those who were unidentified ($p<.001$). Among those youth identified as highest risk, 64.6% reported physical abuse, 46.7% reported being sexually molested, and 42.6% reported being forced to have sex against their will, compared to 39.5% reporting abuse, 23.3% molestation, and 19% reporting sexual assault, respectively among those youth not identified ($p<.001$ for all).



CASE 4

Triage Tool Score: 5

Age: 23

Sex: Female

Ethnicity: African American

Sexual Orientation: Undisclosed

Place of Origin: USA outside of California

Education: Trade school certificate

Foster Care History: Starting age 14, 5-9 placements

Employment: Not working

Total Years Homeless: 3

Current Housing: Sleeping on streets

Number of Biological Children: 2

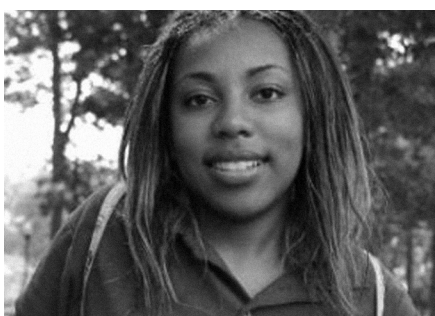
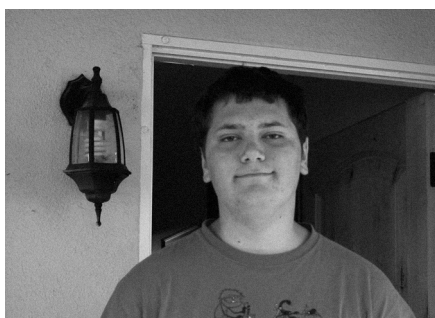
Mental Illness: Depressed

Substance Use: Has never used illegal drugs

Traumatic Experiences: experienced physical abuse, experienced sexual abuse, witnessed family violence, witnessed violence, violent death or serious injury of loved one

CASE 4 is 23 year old, African American female. She reports having a trade school certificate but no current employment. She is currently sleeping on the street and has been homeless for 3 years. She has 2 biological children, but custody of neither. She was herself in the foster care system starting at age 14. She has never used illegal drugs. She qualifies as depressed, and has experienced numerous traumatic events, including both physical and sexual abuse.

The purpose of the **TAY Triage Tool** is to provide a quick, fairly non-invasive assessment to prioritize youth with the greatest need for supportive housing. These six items can be incorporated into larger coordinated systems or protocols providers and communities use to determine the best housing intervention for vulnerable populations. The table on the next page provides the suggested point system for the triage tool questions. For youth who score 4 or higher on the tool, we recommend prioritizing those youth for permanent supportive housing. Providers have shared that these questions can also be a useful case management tool to identify vulnerable youth early in order to shore-up services and supports for the youth as early as possible.



CASE 5

Triage Tool Score: 5

Age: 24

Sex: Male

Ethnicity: Mixed racial identity

Sexual Orientation: bisexual

Place of Origin: USA outside of California

Education: High school dropout

Foster Care History: None

Employment: Not working

Total Years Homeless: 8

Current Housing: Sleeping on streets

Number of Biological Children: 0

Mental Illness: Depressed

Substance Use: Daily marijuana user, occasional methamphetamine user

Traumatic Experiences: Experienced physical abuse, experienced sexual abuse, witnessed family violence, witnessed violence, violent death or serious injury of loved one

CASE 5 is a 24 year old, mixed race, bisexual male. He is currently sleeping on the streets and reports having been homeless for more than 8 years. He has no biological children, nor was he a part of the foster care system. He is a daily marijuana user and an occasional methamphetamine user. He scored as depressed, was the victim of both childhood sexual and physical abuse, and was a witness to violence among family members.

Item:	Points:
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Have you ever become homeless because:	
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- | | |
|---|---------------|
| 1. There was violence at home between family members | Yes = 1 |
| 2. I had differences in religious beliefs with parents/guardians/caregivers | Yes = 1 |
| 3a. I ran away from my family home; or
3b. I ran away from a group home or foster home | Yes = 1 |
| 4. How old were you when you tried marijuana for the first time? | If <age12 = 1 |
| 5. Before your 18th birthday, did you spend any time in jail or detention? | Yes = 1 |
| 6. Have you ever been pregnant or got someone else pregnant? | Yes = 1 |

There is more to learn about the utility and efficacy of the **TAY Triage Tool**. To learn about the utility of the **TAY Triage Tool**, we are engaging a number of communities as learning pilot sites. Providers have already begun helping us hone the language used for the triage tool questions, and we hope to release a utilization guide to help communities implement the tool. To learn about the efficacy of the tool, we are collecting the triage tool data within a three-year evaluation of PSH for TAY in Los Angeles, in order to learn about the outcomes of youth in PSH who also score highly on the **TAY Triage Tool**. Results will be released with the larger evaluation report at the end of 2015.

CASE 6

Triage Tool Score: 5

Age: 21

Sex: Male

Ethnicity: White

Sexual Orientation: Heterosexual

Place of Origin: Los Angeles

Education: High school dropout

Foster Care History: Starting age 2, 10+ placements

Employment: Not working

Total Years Homeless: 6

Current Housing: Sleeping on streets

Number of Biological Children: 2

Mental Illness: Depressed

Substance Use: Daily marijuana user, occasional methamphetamine user

Traumatic Experiences: Experienced physical abuse, experienced sexual abuse, witnessed family violence, has traded sex for money/food/drugs/place to stay

CASE 6 is a 21 year old, White, heterosexual-identifying male. He is also currently staying with a friend and has been homeless for more than 6 years. He was first placed in foster care at age 2 and reports more than 10 lifetime placements. He has two biological children, but custody of neither. He uses marijuana approximately every other day. He also scored as depressed on the CES-D. He has experienced physical and sexual abuse and has participated in survival sex.

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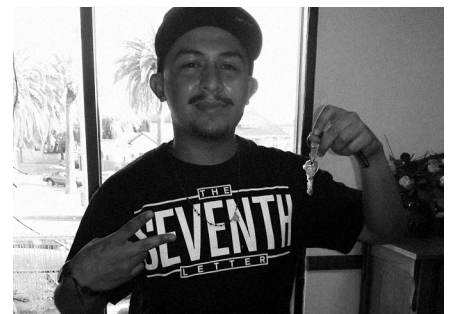
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Youth Who Score 4-6 on the Triage Tool as Compared to Other Youth in the Entire Sample.
Youth age 18-25 were interviewed 2011-2012 in Los Angeles, CA (n=646)

	Percent of Youth Scoring 4-6 on Triage Tool	Percent of Youth in Entire Sample
Gender		
(1) Male	66.67	71.98
(2) Female	31.82	26.32
(3) Transgender- Male to Female	1.52	1.24
(4) Transgender- Female to Male	0	0.46
Racial/Ethnic Identity		
(1) American Indian or Alaska Native	0	2.17
(2) Asian	0	0.47
(3) Black or African American	21.21	26.2
(4) Native Hawaiian or Other Pacific Islander	1.52	0.62
(5) White	43.94	34.88
(6) Latino/Hispanic	9.09	16.12
(7) Mixed race	24.24	19.53
Place of Origin		
(1) Los Angeles	42.19	46.15
(2) Southern California, but not Los Angeles	7.81	8.97
(3) California, but not Southern California	3.13	4.17
(4) United States, other than California	39.06	34.29
(5) Outside of the United States	7.81	6.41
Sexual Minority Status (Gay, Lesbian, Bisexual, Questioning)	24.19	26.37
Highest Degree Received		
(1) None	43.08	34.47
(2) High school diploma	18.46	41.15
(3) GED	23.08	13.82
(4) Trade school certification	9.23	5.28
(5) Associates AA degree	4.62	3.11
(6) Bachelor's BA/BS degree	1.54	2.17
Employment Status (Current)		
(1) Job that is "under the table"	16.67	7.82
(2) Legal employment	16.67	17.53
(3) Not working	66.67	74.65
Ever placed in foster care	50	37.73

	Percent of Youth Scoring 4-6 on Triage Tool	Percent of Youth in Entire Sample
HOUSING EXPERIENCES		
Homeless for Five or More Years	48.44	18.06
Current Housing Situation		
[1] Family home	4.62	7.76
[2] Foster family home	0	0.83
[3] Relative's home	1.54	2.81
[4] Friend's home	15.38	8.25
[5] Home of my boyfriend/girlfriend/person I'm having sex with	3.08	4.46
[6] Group home	1.54	0.99
[7] Shelter (emergency, temporary)	9.23	11.72
[8] Hotel, motel	10.77	5.12
[9] Sober living facility	0	0.5
[10] Jail, prison, or juvenile detention center	1.54	0.99
[12] Transitional living program	1.54	3.8
[13] Own apartment	3.08	2.97
[14] Street	40	37.79
[15] Beach	3.08	2.97
[16] Tent or campsite	0	1.82
[17] Abandoned building	0	0.5
[18] Car	3.08	4.95
[19] Bus	0	0.33
[20] Other	1.54	1.49
BEHAVIORAL HEALTH RISK		
Sex and Pregnancy		
Ever pregnant or got someone pregnant	87.69	43.6
Last sex under the influence of drugs or alcohol	49.21	44.22
Ever exchanged sex for money, drugs, place to stay	23.08	19.06
Recent Alcohol and Substance Use		
Drank 5 or more alcoholic drinks in a row	50	46.36
Used marijuana on a daily basis	66.67	47.99
Used methamphetamine	40.91	25.47
Used cocaine	13.85	15.21
Used heroin	10.61	9.83
Injected drugs	16.67	10.55

	Percent of Youth Scoring 4-6 on Triage Tool	Percent of Youth in Entire Sample
MENTAL HEALTH ISSUES		
Traumatic Experiences		
Being hit, punched, or kicked very hard at home.	64.62	42.16
Seeing a family member being hit, punched or kicked very hard at home.	60.94	38.32
Being beaten up, shot at or threatened to be hurt badly in your town.	76.19	45.96
Seeing someone in your town being beaten up, shot at or killed.	79.69	57.19
Seeing a dead body in your town.	73.44	40.63
Having an adult or someone much older touch your private sexual body parts when you did not want them to.	46.77	25.66
Hearing about the violent death or serious injury of a loved one.	76.19	51.22
Physically forced to have sex when you did not want to.	42.62	21.34
Mental Health Diagnosis		
Clinical cut score for Post-Traumatic Stress	46.67	32.04
Clinical cut score for Depression	66.67	52.79

This appendix explains in detail how the TAY Triage Tool was developed. Included are: the sampling procedures used to collect the data, the statistical methodology, and detailed results.

Sample

As a part of a longitudinal study addressing social networks and risk behaviors of homeless youth in Los Angeles, a sample of 646 homeless youth (ages 13 to 25 years) were recruited between October 2011 and November 2012 from two drop-in centers in Los Angeles. All youth accessing services at these agencies during the data collection period were eligible to participate, including those who self-reported in the questionnaire that they were older than 25 years. Refusal rates were low, with only 6.7% of youth at Site 1 and 19.9% of youth at Site 2 declining to participate in the study.

Characteristics of the Sample

Gender

Male	460	72.21
Female	166	26.06
Transgender (Male to Female)	8	1.26
Transgender (Female to Male)	3	0.47

Sexual Orientation

Gay/Lesbian	47	7.48
Queer	4	0.64
Bisexual	94	14.97
Heterosexual	467	74.36
Questioning/Unsure	16	2.55

Race

American Indian	14	2.2
Asian	3	0.47
African American	168	26.42
Native Hawaiian/ Pacific Islander	4	0.63
White	220	34.59
Latino	103	16.19
Mixed Race	124	19.5

Total time homeless in years

Less than 1 year	154	27.75
1 to 2	111	20
2 to 3	83	14.95
3 to 4	76	13.69
4 to 5	42	7.57
5 to 6	23	4.14
6 to 7	19	3.42

7 to 8	8	1.44
8 to 9	9	1.62
9 to 10	8	1.44
More than 10	22	3.96

Age

18	54	8.48
19	87	13.66
20	111	17.43
21	97	15.23
22	96	15.07
23	86	13.5
24	80	12.56
25	26	4.08

Educational Attainment

No degree	220	34.65
High school diploma	260	40.94
GED	89	14.02
Trade school certification	34	5.35
Associates AA degree	18	2.83
Bachelor's BA/BS degree	14	2.2

Current Housing Situation

[1] Family home	47	7.87
[2] Foster family home	5	0.84
[3] Relative's home	17	2.85
[4] Friend's home	49	8.21
[5] Home of my boyfriend/girlfriend/person I'm having sex with	27	4.52
[6] Group home	6	1.01
[7] Shelter (emergency, temporary)	71	11.89
[8] Hotel, motel	28	4.69
[9] Sober living facility	3	0.5
[10] Jail, prison, or juvenile detention center	6	1.01
[12] Transitional living program	23	3.85
[13] Own apartment	18	3.02
[14] Street	228	38.19
[15] Beach	16	2.68
[16] Tent or campsite	10	1.68
[17] Abandoned building	3	0.5
[18] Car	29	4.86
[19] Bus	2	0.34
[20] Other	9	1.51

Place of Origin

(1) Los Angeles	286	46.43
(2) Southern California, but not Los Angeles	55	8.93
(3) California, but not Southern California	25	4.06
(4) United States, other than California	210	34.09
(5) Outside of the United States	40	6.49

Procedures

Recruitment was conducted in four 19 day periods, tow at each agency; during that time period, recruiters were present at the agency to approach youth for the duration of service provision hours. Recruiters provided clients a brief verbal summary of the study and incentives and asked about their interest in participating. Any client receiving services at the respective agency was eligible to participate. Each agency has one main entrance where youth sign-in for services for the day, ensuring that all youth were approached. Youth new to the agency first completed the agency's intake process before beginning the study, to ensure they met the eligibility requirements for the agency (and thus the study). A consistent set of two research staff members were responsible for all recruitment to prevent youth completing the survey multiple times within each data collection period per site. Youth who were surveyed a second time are not included in the current paper. Signed informed consent was obtained from youth 18 years of age and older and informed assent was obtained from youth 13- to 17-years-old. Parental consent was waived for minors, as many homeless youth are unaccompanied and have negative family relationships. (Although the current paper only uses youth age 18 to 25 because of the desire to target the TAY population which is conventionally defined as 18 to 25.) The study takes about 60-90 minutes to complete and includes two distinct parts: a self-administered questionnaire and a social network interview. (This paper only includes data from the questionnaire, not the social network interview.) Participants received \$20 in cash or gift cards as compensation for their time. This study was approved by the University of Southern California's Institutional Review Board.

Statistical Analysis

Based on the literature on vulnerability and risk-taking among homeless youth (e.g. Milburn, Rice, Rotheram-Borus et al., 2009; Toro, 2011), we assessed a large number of possible variables to be included in the triage tool. We wanted to avoid complex issues of causal interpretation where possible. We attempted whenever possible, to focus on specifications of variables that likely preceded long-term homelessness. For example, rather than assessing current levels of alcohol use, we assessed if the youth had consumed alcohol at age 12 or younger. High levels of alcohol use could lead to long-term homelessness, but just as easily long-term homelessness could lead to high levels of alcohol use. Whereas, using prior to age 12 is unlikely to be an effect of long-term homelessness among a sample of 18 to 24 year olds.

We examined:

- 19 different reasons for becoming homeless (e.g. “I experienced sexual abuse.” “my desire for adventure”)
- Alcohol use, marijuana use, first sexual experience at age 12 or younger
- Foster care involvement, incarceration prior to age 18
- 8 different traumatic experiences (e.g. “being hit, punched or kicked very hard at home.”)
- A brief 4-item screen for PTSD symptoms
- Employment, high school drop out, HIV positive status, testing positive for other STI’s, sleeping on the streets currently, having children, being pregnant (or impregnating someone), trading sex for money, food, drugs, housing or other resources
- Sexual orientation, gender, race/ethnicity

The final variables which we suggest using as part of the Triage Tool were selected in a two stage process. First, all associations with each variable were taken one-at-a-time, controlling only for age. Variables which were found to be statistically significant at the $p < .10$ level or higher were retained for stage 2. Second, the reduced set of variables was entered into a multivariate logistic regression model. We retained gender, race, age, and sexual orientation, but all other variables which were not significant at the $p < .05$ level were removed from the model. The resulting model indicates which variables are independently associated with long-term homelessness for TAY. The Odds Ratio can be interpreted as in the following example: TAY who reported using marijuana at age 12 or younger were 3.05 times more likely to experience long-term homelessness, compared to those youth who used after age 12 or never used.

Primary Results

The initial set of analyses which examined each vulnerability marker one at a time, controlling only for age, resulted in a reduced number of possible variables for the index.

Table 1: Logistic regressions assessing long-term homelessness among homeless TAY, Los Angeles 2011-12

Odds	95% Confidence		Reasons for Leaving Home	
2.02	1.30	3.15	*	[1] I was kicked/thrown out of my family home, group home, or foster home
1.78	1.15	2.77	*	[2] I left my family home, group home, or foster home
1.54	0.95	2.52		[3] I was evicted
1.50	0.95	2.37		[4] I had a conflict with parents/guardians/caregivers
2.85	1.64	4.94	*	[5] I experienced physical abuse
2.46	1.16	5.22	*	[6] I experienced sexual abuse
3.02	1.77	5.16	*	[7] There was violence at home between family members
2.15	1.27	3.65	*	[8] My personal alcohol and drug use
2.21	1.23	3.98	*	[9] My personal mental health problems
1.89	0.94	3.79		[10] My sexuality/sexual identity
1.44	0.92	2.26		[11] My desire for adventure
1.84	0.99	3.40		[12] There was a traumatic event involving family (death, accident, rape, overdose)
2.04	0.99	4.19		[13] There was a traumatic event involving a friend(s)
1.35	0.86	2.13		[14] My desire for independence
2.04	1.08	3.85		[15] My parents/guardians had financial problems at home
2.68	1.41	5.10	*	[16] I had problems at school
1.14	0.51	2.57		[17] I aged out of foster care
1.43	0.82	2.51		[18] I just got out of jail
3.20	1.59	6.42	*	[19] I had differences in religious beliefs with parents/guardians/caregivers

Note: results depict models which control only for age

Table 2: Logistic regressions assessing long-term homelessness among homeless TAY, Los Angeles 2011-12

Odds	95% Confidence		Early Risk Behaviors	
	1.10	3.07	*	Sexual debut 12 or younger
	1.33	3.20	*	Fisrt alcohol consumption 12 or younger
	2.18	5.39	*	First marijuana use 12 or younger
	1.43	3.49	*	Incarcerated before age 18

Note: results depict models which control only for age

Table 3: Logistic regressions assessing long-term homelessness among homeless TAY, Los Angeles 2011-12

Odds	95% Confidence		Traumatic Experiences
1.33	0.86	2.08	1) Being hit, punched, or kicked very hard at home. (Do not include ordinary fights between brothers and sisters.)
1.25	0.79	1.97	2) Seeing a family member being hit, punched or kicked very hard at home. (Do not include ordinary
1.53	0.97	2.40	3) Being beaten up, shot at or threatened to be hurt badly in your town.
1.32	0.84	2.08	4) Seeing someone in your town being beaten up, shot at or killed.
2.08	1.33	3.26	* 5) Seeing a dead body in your town. (Do not include funerals.)
1.94	1.21	3.11	* 6) Having an adult or someone much older touch your private sexual body parts when you did not want them to.
1.01	0.65	1.58	7) Hearing about the violent death or serious injury of a loved one.
1.42	0.85	2.37	8) Physically forced to have sex when you did not want to.
1.48	0.93	2.35	PTSD symptomology

Note: results depict models which control only for age

Table 4: Logistic regressions assessing long-term homelessness among homeless TAY, Los Angeles 2011-12

Odds	95% Confidence		Other Important Issues
1.06	0.55	2.03	Currently employed
1.27	0.81	2.00	Foster care experiences
1.77	1.13	2.78	* High school drop out
3.17	0.93	10.75	HIV positive
1.08	0.51	2.28	STI positive
1.11	0.72	1.73	Sleeping on streets
2.18	1.38	3.45	* Has children
2.23	1.43	3.48	* Pregnant you or someone else
1.29	0.80	2.08	Non-heterosexually identifying

Note: results depict models which control only for age

These initial results were then used to create the final multi-variable model which resulted in the triage tool.

Table 5: Multivariate logistic regression assessing long-term homelessness among homeless TAY, Los Angeles 2011-12

Reasons for leaving home	Odds Ratio		95% Confidence	
I left my family home, group home, or foster home	1.65	*	1.00	2.72
There was violence at home between family members	2.23	*	1.21	4.12
I had differences in religious beliefs with parents/guardians/caregivers	2.62	*	1.13	6.06
Early Risk Taking:				
First marijuana use 12 or younger	3.05	***	1.84	5.06
Incarcerated before age 18	1.86	*	1.11	3.12
Other issues:				
Pregnant you or someone else	1.94	*	1.16	3.24
Demographic Variables				
Age (in years)	1.27	***	1.13	1.43
Gender (males vs. females)	1.80		0.95	3.42
Sexual Orientation (LGB vs. heterosexual)	1.82		1.00	3.34
Foster Care History (vs. no foster care)	1.04		0.62	1.73
Race (white vs. non-white)	0.98		0.59	1.63
Pseudo R-square	0.16			

* = p<.05, *** = p<.001

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Authors:

Eric Rice, PhD
Jacquelyn Anderson
Angela Rosales, MPP

Funding for data collection: National Institute of Mental Health grant # MH093336

Staff who conducted youth interviews:

Harmony Rhoades, PhD
Hailey Winetrobe, MPH
Adam Carranza
David Dent
Robin Petering, MSW
Jeremy Gibbs, MSW
Shannon Dunlap, MSW
Natalie Bracken, MSW
Angela Tuckerman
Brian Mahanay
Javier Robles
Diana Ray Letourneau, MSW
Caroline Lim, MSW
Anamika Barman-Adhikari, PhD
Roe Astor
Ali Arastu

Agency partners where youth were interviewed:

Common Ground
Safe Place for Youth
My Friend's Place

Advisory groups that provided input throughout tool development:

Housing and Service Providers:

Alex Atkinson, First Place for Youth
Sherri Bethelmy, A Community of Friends (ACOF)
Ishimine Caldwell, Coalition for Responsible Community Development (CRCD)
Heather Carmichael, My Friend's Place
Erin Casey, My Friend's Place
Aaron Criswell, Step Up On Second
Nina Franqui, Women Organizing Resources, Knowledge, and Services (WORKS)
Emily James, Step Up On Second
Sam Joo, Koreatown Youth and Community Center (KYCC)

Mollie Lowery, Housing Works
Andrea Marchetti, Jovenes Inc.
Shauna Reed, United Friends of the Children
Alice Salinas, People Assisting The Homeless (PATH)
Grant Sunoo, Coalition for Responsible Community Development (CRCD)
Thomas Yee, Little Tokyo Service Center (LTSC) CDC
Dan Turoff, Pacific Lodge Youth Services
Ernie Yoshikawa, Koreatown Youth and Community Center (KYCC)

CSH TAY Research Advisory Council:

Laura Abrams, University of California, Los Angeles, Luskin School of Public Affairs
Kathleen Austria, Office of Supervisor Ridley-Thomas
Samantha Batko, National Alliance to End Homelessness
Libby Boyce, LA County Chief Executive Office, Service Integration Branch
Terri Boykins, LA County Dept. of Mental Health
Adrienne Breidenstine, US Interagency Council on Homelessness
Matthew Doherty, US Interagency Council on Homelessness
Amy Dworsky, Chapin Hall at the University of Chicago
Shahera Hyatt, CA Homeless Youth Project
Harvey Kawasaki, LA County Dept. of Children and Family Services
Jeff Kim, The California Wellness Foundation
Carrie Miller, LA County Chief Executive Office, Service Integration Branch
Michael Nailat, United Way of Greater Los Angeles
Louisa Ollague, Office of Supervisor Molina
Molly Rysman, CSH
Roselma Samala, Carl & Roberta Deutsch Foundation
Savina Schaffer, The California Wellness Foundation
Arlene Schneir, Hollywood Homeless Youth Partnership
Beth Stokes, Formerly of LA Homeless Services Authority
Anneli Stone, W.M. Keck Foundation
Sonia Taddy, Harder+Co Community Research
Ruth Teague, CSH
Linda Tran, Harder+Co Community Research
Simone Tureck, John Burton Foundation
Reina Turner, LA County Dept. of Mental Health
Michael Vernor, LA County Probation Dept., Independent Living Program
Dhakshike Wickrema, Shelter Partnership