

Employment Factors for People with HIV/AIDS

Lisa A. Razzano, PhD

Marie M. Hamilton, LCSW, MPH

Center on Mental Health Services Research & Policy
Department of Psychiatry, University of Illinois at Chicago

Judith K. Perloff, LCSW

Chicago House & Social Service Agency

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Work, even part-time work, reduces:

- Mental health concerns, such as depression and anxiety
- Social isolation and promotes positive relationships with work peers
- Use of alcohol and other drugs
- Total dependence on benefits, entitlements, and other public support systems that are vulnerable to changes, restrictions, time limits

Working & Well-being

- Generally, there are positive changes (e.g., less depression, isolation).
- Some, however, report that working too much has had a negative effect on their health, so finding a balance is crucial.
- While some reports indicate working decreases adherence, others suggest it improves adherence to medication regimens.
 - Been conducting research on this for 7 years; continue to get mixed results study to study; overall results continue to be mixed in the published literature.

Changes in Benefits & Entitlements from Full or Part-time Employment

- **One national study found that:**
 - 73% of respondents noted that loss of disability income benefits was a major barrier for returning to work, with 67% noting fears related to loss of publicly-funded health insurance
- The amount of money received may decrease as a result of working because of increased cash income.

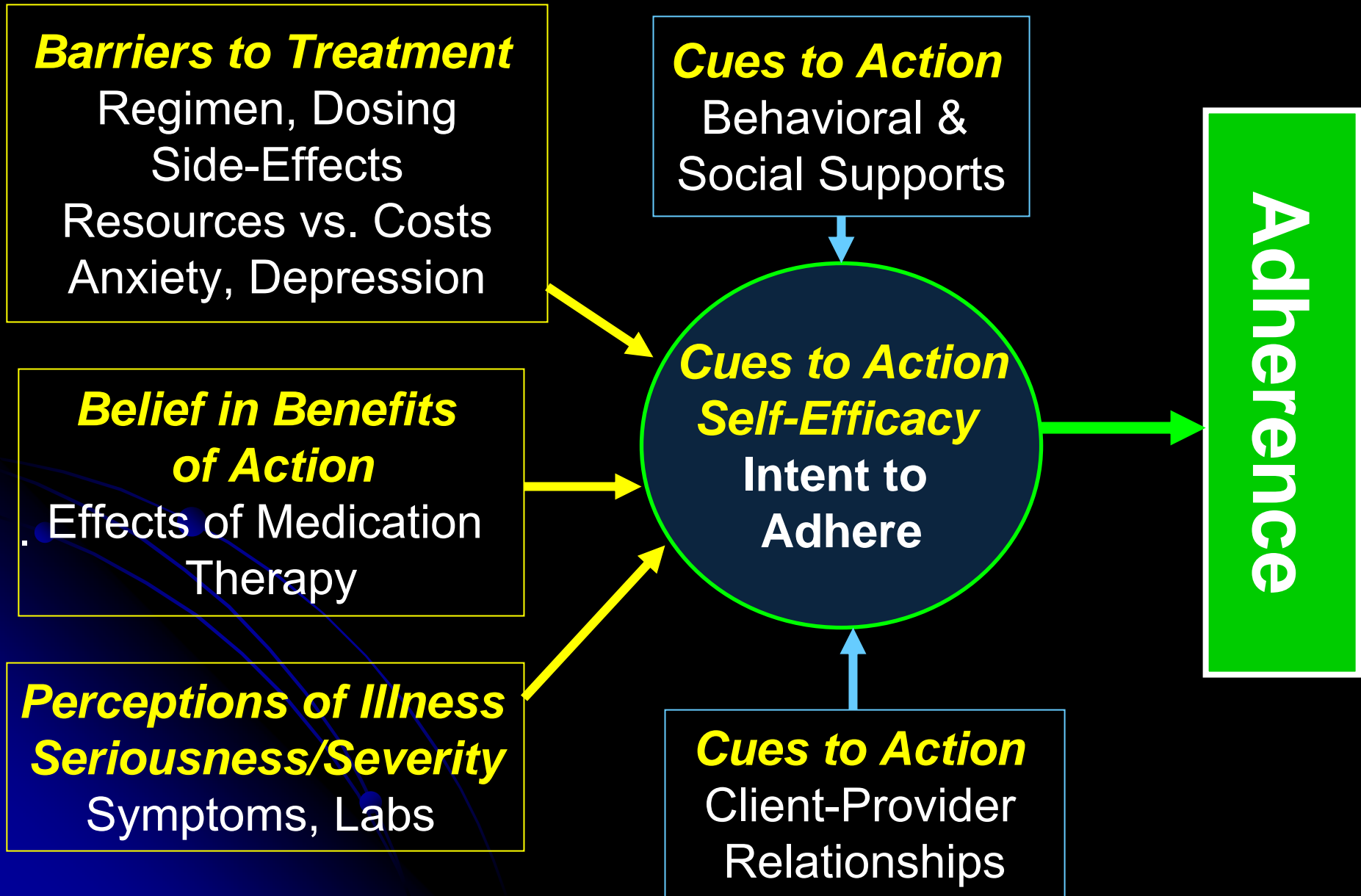
Adapting & Expanding Services

- Address knowledge and health behaviors within an employment/return to work context
- Ground activities in theory → Health Beliefs Model (HBM)
- Innovative programs with specific adaptations for people with HIV/AIDS → use the “active ingredients” of evidence-based practices successful for other populations with similar issues

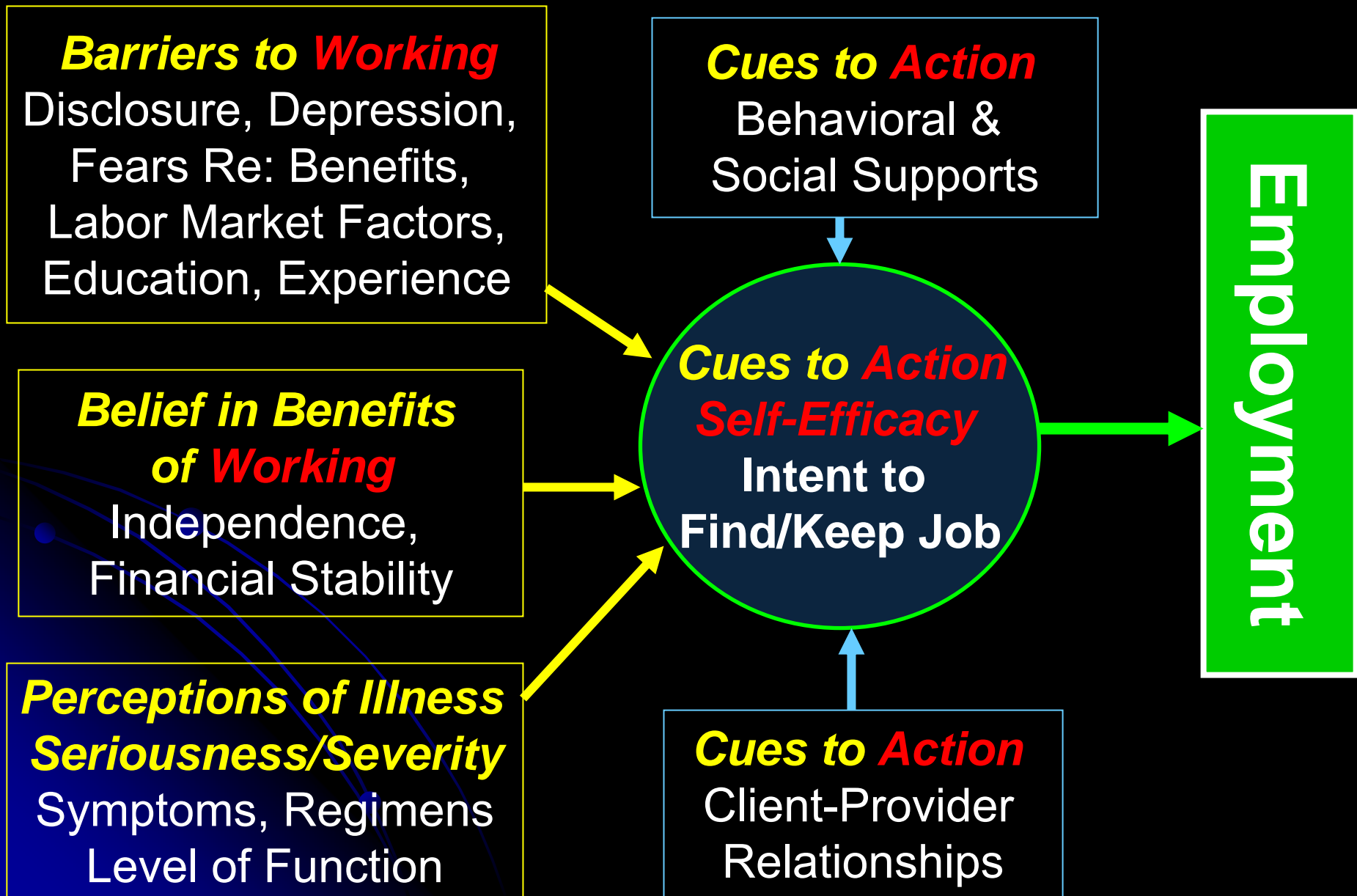
General HBM Application

Concept	Definition	Application
Perceived Susceptibility	One's opinion of chances of getting a condition	Define population(s) @ risk, risk levels; personalize risk based on a features/behaviors; heighten perceived susceptibility if too low
Perceived Severity	One's opinion of how serious is a condition, its consequences	Specify consequences of the risk and the condition itself
Perceived Benefits	One's belief in the efficacy of the advised action to reduce risk or seriousness of impact	Define action to take; how, where, when; clarify the positive effects to be expected.
Perceived Barriers	One's opinion of the tangible and psychological costs of the advised action	Identify and reduce barriers through reassurance, incentives, assistance.
Cues to Action	Strategies to activate "readiness"	Provide how-to information, promote awareness, reminders.
Self-Efficacy	Confidence in one's ability to take action	Provide training, guidance in performing action.

Conceptual Model of Adherence



Adapting Model for Employment



Using HBM: **Integrated HIV Adherence & MH**

Concept	Application	Tailoring Activities
Perceived Susceptibility	Define population(s) @ risk, risk levels; personalize risk based on a features & behaviors; heighten perceived susceptibility if too low	Increase overall knowledge of <i>disease progression</i> risks; 2° illness risks; psychotropic med interactions; metabolic issues
Perceived Severity	Specify consequences of the risk and the condition itself	Initial symptoms & limitations; long course of illness, complications of poor treatment
Perceived Benefits	Define action to take; how, where, when; clarify the positive effects to be expected	Increase immune function; when to initiate use of medications for HIV/AIDS
Perceived Barriers	Identify and reduce barriers through reassurance, incentives, assistance	Reducing medication interactions; identifying early symptoms, side effects
Cues to Action	Provide how-to information, promote awareness, reminders	CD4, vRNA monitoring; conversations with multiple treating docs
Self-Efficacy	Provide training, guidance in performing action	Development of regimen dosing plans; health testing routines

Findings UIC MAPS-1 Adherence Intervention

- Sample published in literature; no major issues or unexpected findings
- Results examine baseline (T1) and 6-month follow up (T2) data
- Intervention group (MAPS) demonstrated stronger improvements in contrast to comparison group for outcomes theoretically relevant to employment

MAPS-1 Findings

- Adherence Intervention $p < .02$: **Impact:** Missed dosages decreased by 59% among MAPS participants vs. 26% among CG participants.
- HIV/AIDS Symptoms $p < .01$: **Impact:** reported impairment related to HIV/AIDS symptoms decreased by as much as 50% for MAPS compared to 28% in CG.
 - Expect this since improved adherence = reduced symptoms.

MAPS-1 Findings

- Alcohol & Recreational Drug Use $p < .03$:
Impact: on average, MAPS participants demonstrated a 70% decrease in use of alcohol and other drugs compared to a 36% decrease in the CG.

MAPS-1 Findings

- Perceptions of health and well-being derived from (MOS-HIV) in average change for 3 subscales:
 - physical functioning, $p < .04$
 - social functioning, $p < .03$; and
 - health distress, $p < .03$.

Impact: in each case, MAPS participants demonstrated significantly more positive health perceptions than those in CG.

Would the scales from the MOS-HIV Survey differentiate clients' own health perceptions based on:

- CD4?
- HIV-Illness symptoms?
- Employment Status?

CD4 Count

- Higher CD4 significantly related to: Health Transitions; those with lower CD4 counts reported more positive perceptions toward their health transitions

Rate physical health and emotional conditions as getting better than they had been in the previous 4 weeks.

Symptoms of HIV

- Lower level of HIV-illness symptoms significantly related to 9 MOS subscales:

Overall Health, Physical Function, Social Function, Cognitive Function, Mental Health, Energy, Health Distress, Quality of Life, & Health Transitions

Significantly more likely to rate these physical health and emotional conditions as better if they had fewer illness symptoms.

Employment Outcomes (Razzano et al.)

Ave. Scale Score	Working	Not Working	
Overall Health Functioning	57.1	38.4	7.6**
<u>Functional Status Dimensions</u>			
Physical Functioning	74.5	57.0	5.5*
Role Functioning	68.4	29.4	11.4***
Social Functioning	76.8	61.8	3.8
Cognitive Functioning	76.3	65.9	2.6
<u>Well-Being Dimensions</u>			
Pain	49.1	53.5	2.7
Mental Health	71.3	60.5	2.7
Energy/Fatigue	58.2	46.9	2.9
Health Distress	71.8	67.4	.33
Quality of Life	72.4	61.4	3.1
<u>Change in Health Dimension</u>			
Health Transition	27.7	27.5	.62

Scale	CD4	Symptoms	Work
Overall Health	-	+	+
Phys. Function	-	+	+
Role Function	-	-	+
Social Function	-	+	-
Cog. Function	-	+	-
Pain	-	-	-
Mental Health	-	+	-
Energy	-	+	-
Health Distress	-	+	-
Quality of Life	-	+	-
Health Trans.	+	+	-

Model Predicting Employment @ 6-Months (Post-Medication Intervention)

- **Factors & Indicators in Model #1**
- Study Condition (Adherence vs. Comparison)
- Work Status at Study Entry
- Gender
- Race/Ethnicity
- Medication Adherence
- Total HIV Symptoms
- Overall Physical Health Rating
- Education
- Total Social Support

Model Results

Factor/Indicator	Exp(B)	Significance
Study Condition	.558	.512
Work Status @ Study Entry	.008	.001
Gender (Male)	.246	.324
Race/Ethnicity (African American)	1.39	.735
Adherence (Any Missed Dosages)	.059	.075
Total HIV Symptoms	.982	.844
Physical Health Rating	.968	.028
Education	.123	.163
Total Social Support	1.79	.019
Constant	.448	.001
$X^2 (9) = 61.18, p < .001, R^2 = .52$		

Model Classification

<i>Observed</i>		<i>Predicted</i>		
		<i>Working for Pay</i>		<i>Percent Correct</i>
		<i>No</i>	<i>Yes</i>	
<i>Working for Pay</i>	<i>No</i>	55	3	94.8%
	<i>Yes</i>	5	21	80.8%
Overall Percentage Correct				90.5%

Model Summary

- The *strongest* overall predictor of future employment is past employment* – this supports findings in the literature regarding previous work experiences and subsequent employment and vocational outcomes.
- Social support can significantly improve individuals' success in returning to work/working.
- Among a study sample living with a chronic health conditions, ratings for physical health were a key predictor of employment.
- Ratings for medication adherence approached significance ($p < .07$).

The Increase Income & Independence for Program (iFOUR)

Chicago House & Social Service Agency

Program Innovation

- Employment program for people with HIV/AIDS based on evidence-based practices in supported employment
- Uses state-of-the-science techniques, including job training, rapid job placement, & matching jobs to clients' preferences & interests; post-employment supports
- Includes components regarding benefits planning

Meeting Community Needs

- Combats HIV/AIDS workplace discrimination;
- Addresses gaps in work history due to the cyclical nature of the disease;
- Concentrates on confidentiality in the workplace;
- Supports disclosure & development of reasonable accommodations specific people with HIV/AIDS;
- Examines the potential for loss of subsidized benefits and services; &
- Promotes better management of HIV/AIDS health and adherence issues

Unique Program Features

- Attends to individuals' needs throughout employment process, including pre- & post-employment supports;
- Informs & will further transform the new, "tiered" Ryan White System case management system;
- Integrates components relevant for low economic/unemployed, unstably housed HIV/AIDS clients;
- Includes peer support, peer-provided services; &
- Collects longitudinal employment, economic, psychosocial indicators relevant to work & community integration among people with HIV/AIDS.

Program Evaluation

- Interviews are conducted @ iFOUR program entry, then every 6-months
- Evaluation conducted in collaboration with researchers from UIC
- Exploring program outcomes, as well as relevant areas within the field using standardized measures & instruments

Current Reporting*:

- Baseline (T1) (n=128)
- 6-Months (T2) (n=26)
- 12-Months (T3) (n=12)
- 18-Months (T4) (n=4)

*Number reaching each interview milestone.

Outcomes Among iFOUR Participants (12/07)

- Overall improvement in medication regimen adherence
 - 5% fewer reports of skipping dosages in the past week (Baseline – 12 mos)
- Substance Use decreases
- Symptoms Consistent

MOS-HIV Health Perceptions

- Overall Health (↗ 6%)
- Energy & Vitality (↗ 12%)
- Health Distress (↗ 7%)
- Cognitive Functioning (↗ 6%)
- Health Transitions (↗ 5%)
- Physical Functioning (↗ 5%)
- Mental Health (↗ 4%)
- Pain (↗ 2%)

Specific MOS-HIV Items

MOS-HIV Scale Item	iFOUR Entry	Time 2 (6-months later)
<p>Does your health <i>keep you from working</i> at a job, doing work around the house, or going to school?</p>	<p>5% - Yes</p>	<p>2% - Yes 3% improvement</p>
<p>Have you been unable to do <i>certain kinds or amounts</i> of work, housework, or schoolwork because of your health?</p>	<p>25% - Yes</p>	<p>3% - Yes 22% improvement</p>

Employment Outcomes

Overall Year 1 Employment Rate: **40*%**

(*Unduplicated; placement rate is slightly higher)

Participants *still employed* at initial job: **61%**

Working participants who have *received*
raises: **20%**

Salaries Earned

- ***Total Earnings Among iFOUR Participants: \$96,315***
 - Average Total Dollars Earned/Job: **\$4,187**
 - Minimum **\$320** earned; maximum **\$15,800**
 - Average Salaries/hr.: **\$10.04**
 - Minimum **\$3.90 (+tips)/hr.**; maximum **\$20/hr.**
 - Proportion of Salaries Above Minimum Wage: **91%**

Lisa A. Razzano, Ph.D.

Associate Professor of Psychiatry & Director of
Training & Education Programs

Center on Mental Health Services Research &
Policy

University of Illinois at Chicago, Department of
Psychiatry

1601 West Taylor, M/C 912

Chicago, IL 60612

312-413-0323

Razzano@psych.uic.edu