

ASSURANCE
of Compliance with SAMHSA Charitable Choice
Statutes and Regulations
SMA 170

**REQUIRED ONLY FOR APPLICANTS APPLYING FOR GRANTS THAT FUND
SUBSTANCE ABUSE TREATMENT OR PREVENTION SERVICES**

SAMHSA's two Charitable Choice provisions [Sections 581-584 and Section 1955 of the Public Health Service (PHS) Act, 42 USC 290k, et seq., and 42 USC 300x-65 et seq., respectively] allow religious organizations to provide SAMHSA-funded substance abuse services without impairing their religious character and without diminishing the religious freedom of those who receive their services. These provisions contain important protections both for religious organizations that receive SAMHSA funding and for the individuals who receive their services, and apply to religious organizations and to State and local governments that provide substance abuse prevention and treatment services under SAMHSA grants.

As the duly authorized representative of the applicant, I certify that the applicant:

Will comply, as applicable, with the Substance Abuse and Mental Health Services Administration (SAMHSA) Charitable Choice statutes codified at sections 581-584 and 1955 of the Public Health Service Act (42 U.S.C. §§290kk, et seq., and 300x-65) and their governing regulations at 42 C.F.R. part 54 and 54a respectively.

SIGNATURE OF AUTHORIZED CERTIFYING OFFICIAL	TITLE Jennifer Marron Associate Director, Sponsored Programs
APPLICANT ORGANIZATION	DATE SUBMITTED 7/12/13
The Trustees of Boston University	

Foster, Alania (SAMHSA)

From: Marron, Jen [jmarron@bu.edu]
Sent: Thursday, June 20, 2013 11:37 AM
To: Foster, Alania (SAMHSA)
Cc: Ryan, Erin B; Muroff, Jordana; Lundgren, Lena; Enish, Meredith H
Subject: FW: TI024733 - TCE-TAC - Application Review - Response Requested
Attachments: Muroff -- response.pdf

Importance: High

Good morning-

On behalf of the Trustees of Boston University, please find the attached response to your email below. Please let me or Dr. Muroff know if we can provide you any additional information at this time.

Regards,

Jennifer A. Marron
Associate Director, Sponsored Programs
Boston University

From: Muroff, Jordana
Sent: Monday, June 17, 2013 12:55 PM
To: Lundgren, Lena
Cc: Stonecipher, Dustin; Enish, Meredith H; Ryan, Erin B
Subject: Fwd: TI024733 - TCE-TAC - Application Review - Response Requested

FYI I just received this from SAMHSA. We need to reply within a few days.

Begin forwarded message:

From: "Foster, Alania (SAMHSA)" <Alania.Foster@samhsa.hhs.gov>
Date: June 17, 2013, 11:30:00 AM EDT
To: "jmuroff@bu.edu" <jmuroff@bu.edu>
Cc: "ospera@bu.edu" <ospera@bu.edu>
Subject: TI024733 - TCE-TAC - Application Review - Response Requested

Dear Jordana,

My name is Alania Foster from the Division of Grants Management at SAMHSA.

Your organization recently applied to the FY 2013 Grants to Expand Care Coordination through the Use of Technology-Assisted Care in Targeted Areas of Need announcement, RFA # TI-13-008. I have started the financial review of your application, and the following items need to be addressed before I can complete the review:

1. It was noted that your organization does not provide an adequate description of existing resources and other support it expects to receive for the proposed project. Provide a detailed description of existing resources and other support you expect to receive for the proposed project.

2. It was noted that your organization did not provide an adequate budget and budget justification. Provide a revised budget and justification with more detail. For additional details on an adequate budget, see the example budget provided in the RFA. More specifically these are some of the things I noticed are missing.
 1. For personnel provide salary * effort = federal costs.
 2. Provide each component that makes up the fringe calculation (insurance, FICA, etc.). Also, provide a calculation for each (rate * wage = federal costs).
 3. Provide a detailed breakdown for the \$15,000 for computer/electronic services. How did you arrive at \$15,000?
 4. Provide a calculation at how you arrived at \$2,400 for the subject payments.
 5. Provide a detailed breakdown for each of the cost listed under 'Subcontract'. How did you arrive at those numbers?
3. Provide a copy of your current Indirect Cost Rate Agreement showing the requested IDC rate of 36.2%.

When making changes the budget you must submit a full revised detailed budget and a revised SF424A if applicable. Also, when making changes to the budget, please ensure that the bottom line of \$279,998 does not change.

The requested items should be submitted to me via e-mail as one PDF attachment by **COB on June 21, 2013**. If you have questions regarding this request, do not hesitate to contact me.

Please be informed that funding decisions have not been made; however, these are items that needs to be addressed before your application can be further reviewed.

Please note: Any correspondence/response must be sent from the Project Director, Business Official or Authorizing Representative of your organization. If prepared by someone other than those individuals listed above, the correspondence/response must be forwarded to the Project Director, Business Official, or Authorizing Representative then sent to this office with their comments.

Thank you,

Alania Foster

Alania Foster, M.S.

Grants Management Specialist

U.S. Department of Health and Human Resources (DHHS)

Substance Abuse and Mental Health Services Administration (SAMHSA)

Office of Financial Resources (OFR), Division of Grants Management (DGM)

1 Choke Cherry Road, Room 7-1091

Rockville, MD 20857

(240) 276-1409 (phone)

(240) 276-1430 (fax)

alania.foster@samhsa.hhs.gov

www.samhsa.gov

Smartphone Technology to Reduce Relapse Among Latinos with Mental Health and Substance Abuse Disorders

Boston University
9/30/2013 to 9/29/2016

A. Personnel

Year 1

Position	Name	Annual Salary/Rate	Level of Effort	Cost
Project Director	Jordana Muroff	\$83,191 Academic Year	14.3%	\$11,886
Project Director	Jordana Muroff	\$27,638 Summer	12.0%	\$3,317
Cultural Expert	Luz Lopez	\$83,708 Academic Year	5.0%	\$4,185
Cultural Expert	Luz Lopez	\$27,810 Summer	15.0%	\$4,172
Data Coordinator	Deborah Chassler	\$66,054	10.0%	\$6,605
Evaluation Expert	Lena Lundgren	\$134,553 Academic Year	3.0%	\$4,037
Evaluation Expert	Lena Lundgren	\$44,702 Summer	3.0%	\$1,341
TOTAL				\$46,793

Year 2

Position	Name	Annual Salary/Rate	Level of Effort	Cost
Project Director	Jordana Muroff	\$86,636 Academic Year	16.6%	\$14,382
Project Director	Jordana Muroff	\$28,467 Summer	20.0%	\$5,693
Cultural Expert	Luz Lopez	\$86,219 Academic Year	7.0%	\$6,035
Cultural Expert	Luz Lopez	\$28,644 Summer	12.0%	\$3,437
Data Coordinator	Deborah Chassler	\$68,036	15.0%	\$10,205
Evaluation Expert	Lena Lundgren	\$138,590 Academic Year	3.0%	\$4,043
Evaluation Expert	Lena Lundgren	\$46,043 Summer	5.0%	\$2,246
TOTAL				\$68,541

Year 3

Position	Name	Annual Salary/Rate	Level of Effort	Cost
Project Director	Jordana Muroff	\$96,826 Academic Year	15.5%	\$14,989
Project Director	Jordana Muroff	\$29,321 Summer	20.0%	\$5,864
Cultural Expert	Luz Lopez	\$88,806 Academic Year	5.0%	\$4,440
Cultural Expert	Luz Lopez	\$29,503 Summer	10.0%	\$2,950
Data Coordinator	Deborah Chassler	\$70,077	15.0%	\$10,512
Evaluation Expert	Lena Lundgren	\$142,748 Academic Year	3.0%	\$4,043
Evaluation Expert	Lena Lundgren	\$47,424 Summer	5.0%	\$2,246
TOTAL				\$67,544

B. Fringe Benefits

Jordana Muroff – Year 1

Component	Rate	Wage	Cost
Retirement Expense	8.6%	\$ 15,203	\$ 1,307
Social Security Taxes	6.7%	\$ 15,203	\$ 1,014
Insurance	1.1%	\$ 15,203	\$ 162
Health & Dental Plan	8.9%	\$ 15,203	\$ 1,360
Tuition Remission	1.3%	\$ 15,203	\$ 199
Benefits Department	0.1%	\$ 15,203	\$ 14
Other	1.3%	\$ 15,203	\$ 201
	28.0%		\$ 4,257

Jordana Muroff – Year 2

Component	Rate	Wage	Cost
Retirement Expense	8.6%	\$ 20,075	\$ 1,726
Social Security Taxes	6.7%	\$ 20,075	\$ 1,340
Insurance	1.1%	\$ 20,075	\$ 214
Health & Dental Plan	8.9%	\$ 20,075	\$ 1,796
Tuition Remission	1.3%	\$ 20,075	\$ 262
Benefits Department	0.1%	\$ 20,075	\$ 18
Other	1.3%	\$ 20,075	\$ 265
	28.0%		\$ 5,621

Jordana Muroff – Year 3

Component	Rate	Wage	Cost
Retirement Expense	8.6%	\$ 20,853	\$ 1,793
Social Security Taxes	6.7%	\$ 20,853	\$ 1,392
Insurance	1.1%	\$ 20,853	\$ 222
Health & Dental Plan	8.9%	\$ 20,853	\$ 1,866
Tuition Remission	1.3%	\$ 20,853	\$ 272
Benefits Department	0.1%	\$ 20,853	\$ 19
Other	1.3%	\$ 20,853	\$ 275
	28.0%		\$ 5,839

Luz Lopez – Year 1

Component	Rate	Wage	Cost
Retirement Expense	8.6%	\$ 8,357	\$ 719
Social Security Taxes	6.7%	\$ 8,357	\$ 558
Insurance	1.1%	\$ 8,357	\$ 88
Health & Dental Plan	8.9%	\$ 8,357	\$ 748
Tuition Remission	1.3%	\$ 8,357	\$ 109
Benefits Department	0.1%	\$ 8,357	\$ 8
Other	1.3%	\$ 8,357	\$ 110
	28.0%		\$ 2,340

Luz Lopez – Year 2

Component	Rate	Wage	Cost
Retirement Expense	8.6%	\$ 9,472	\$ 815
Social Security Taxes	6.7%	\$ 9,472	\$ 632
Insurance	1.1%	\$ 9,472	\$ 100
Health & Dental Plan	8.9%	\$ 9,472	\$ 848
Tuition Remission	1.3%	\$ 9,472	\$ 124
Benefits Department	0.1%	\$ 9,472	\$ 9
Other	1.3%	\$ 9,472	\$ 125
	28.0%		\$ 2,652

Luz Lopez – Year 3

Component	Rate	Wage	Cost
Retirement Expense	8.6%	\$ 7,390	\$ 636
Social Security Taxes	6.7%	\$ 7,390	\$ 493
Insurance	1.1%	\$ 7,390	\$ 78
Health & Dental Plan	8.9%	\$ 7,390	\$ 661
Tuition Remission	1.3%	\$ 7,390	\$ 97
Benefits Department	0.1%	\$ 7,390	\$ 7
Other	1.3%	\$ 7,390	\$ 98
	28.0%		\$ 2,069

Lena Lundgren – Year 1

Component	Rate	Wage	Cost
Retirement Expense	8.6%	\$ 5,378	\$ 463
Social Security Taxes	6.7%	\$ 5,378	\$ 359
Insurance	1.1%	\$ 5,378	\$ 57
Health & Dental Plan	8.9%	\$ 5,378	\$ 481
Tuition Remission	1.3%	\$ 5,378	\$ 70
Benefits Department	0.1%	\$ 5,378	\$ 5
Other	1.3%	\$ 5,378	\$ 71
	28.0%		\$ 1,505

Lena Lundgren – Year 2

Component	Rate	Wage	Cost
Retirement Expense	8.6%	\$ 6,286	\$ 542
Social Security Taxes	6.7%	\$ 6,286	\$ 419
Insurance	1.1%	\$ 6,286	\$ 66
Health & Dental Plan	8.9%	\$ 6,286	\$ 563
Tuition Remission	1.3%	\$ 6,286	\$ 82
Benefits Department	0.1%	\$ 6,286	\$ 6
Other	1.3%	\$ 6,286	\$ 83
	28.0%		\$ 1,761

Lena Lundgren – Year 3

Component	Rate	Wage	Cost
Retirement Expense	8.6%	\$ 6,289	\$ 542
Social Security Taxes	6.7%	\$ 6,289	\$ 419
Insurance	1.1%	\$ 6,289	\$ 66
Health & Dental Plan	8.9%	\$ 6,289	\$ 563
Tuition Remission	1.3%	\$ 6,289	\$ 82
Benefits Department	0.1%	\$ 6,289	\$ 6
Other	1.3%	\$ 6,289	\$ 83
	28.0%		\$ 1,761

Deborah Chassler – Year 1

Component	Rate	Wage	Cost
Retirement Expense	8.6%	\$ 6,605	\$ 568
Social Security Taxes	6.7%	\$ 6,605	\$ 441
Insurance	1.1%	\$ 6,605	\$ 70
Health & Dental Plan	8.9%	\$ 6,605	\$ 591
Tuition Remission	1.3%	\$ 6,605	\$ 86
Benefits Department	0.1%	\$ 6,605	\$ 6
Other	1.3%	\$ 6,605	\$ 87
	28.0%		\$ 1,849

Deborah Chassler – Year 2

Component	Rate	Wage	Cost
Retirement Expense	8.6%	\$ 10,205	\$ 878
Social Security Taxes	6.7%	\$ 10,205	\$ 681
Insurance	1.1%	\$ 10,205	\$ 107
Health & Dental Plan	8.9%	\$ 10,205	\$ 913
Tuition Remission	1.3%	\$ 10,205	\$ 133
Benefits Department	0.1%	\$ 10,205	\$ 9
Other	1.3%	\$ 10,205	\$ 135
	28.0%		\$ 2,857

Deborah Chassler – Year 3

Component	Rate	Wage	Cost
Retirement Expense	8.6%	\$ 10,512	\$ 904
Social Security Taxes	6.7%	\$ 10,512	\$ 701
Insurance	1.1%	\$ 10,512	\$ 111
Health & Dental Plan	8.9%	\$ 10,512	\$ 941
Tuition Remission	1.3%	\$ 10,512	\$ 137
Benefits Department	0.1%	\$ 10,512	\$ 10
Other	1.3%	\$ 10,512	\$ 139
	28.0%		\$ 2,943

Per Boston University's negotiated agreement with DHHS, a fringe benefits rate of 28.0% is applied to professional staff salaries (2/22/13).

Computer/Electronic Services

\$15,000 is requested in Year 1, \$15,450 is requested in Year 2, and \$15,914 is requested in Year 3 for Smartphones and data plans for 120 users, 6 staff users, as well as replacement phones for those that have been lost or stolen (estimated at 30% based on previous ACHESS studies).

Year 1: \$40/month * 12 months * approximately 30 completers/year = \$15,000.

Subject Payments

\$2,400 is requested in Year 1, \$2,472 is requested in Year 2, and \$2,600 is requested in Year 3 for food vouchers given to subjects after two follow-ups.

Year 1: We proposed to recruit approximately 120 active participants and 60 control participants over the 3 years (40 active per year and 20 control participants per year). Active and control participants would complete two follow-up assessments (\$20/ each).

(40+20 participants/ year) = 60 participants

\$20 x 2 follow-up assessments = \$40

60 * \$40=\$2400/ year x 3 years

Subcontract

University of Wisconsin: \$43,343 is requested in Year 1, \$7,356 is requested in Year 2, and \$7,504 is requested in Year 3 for subcontract work from the University of Wisconsin.

\$10,000 is requested in Years 1-3 to the University of Wisconsin for a consortium membership which includes the A-CHESS licensing software. BU will pay this separately to University of Wisconsin; it is not included in the subcontract.

CASA Esperanza: \$100,000 is requested in Year 1 and \$120,000 is requested in Years 2 and 3 for subcontract work from CASA Esperanza.

SCOPE OF WORK
En Comunicación
Casa Esperanza
Residential Treatment program
for Latina/os with mental health and substance use disorders.

On behalf of Casa Esperanza, Inc., I am pleased to collaborate with the Center for Addictions Research and Services and Dr. Muroff on the proposed program effort, *En Comunicación*.

In order to implement the adapted ACHESS application to reduce relapse and increase medication adherence among our clients, Casa Esperanza agrees to the following:

- Provide program services to a sample of 40 clients annually, for a total of 120 clients over the 3 year grant period.
- Conduct GPRA baseline interviews with 40 clients who have completed residential treatment.
- Conduct local evaluation interviews with these 40 clients using Qualtrics, Survey Monkey electronic forms, mimicking the Casa Esperanza EHR system.
- Work with CARS to conduct 6 month and 12 months follow up interviews and collect all relevant data.
- A Case Manager will be available via smart phones to program participants to set up necessary appointments with health care, mental health care and addiction treatment providers and provide support and crisis intervention, as needed.
- A Peer Recovery Coach will be available for program participants to contact for ongoing support and referrals to community resources.
- Provide assistance to Dr. Muroff to set up the initial contacts for the smart phones
- Ensure IT staff work with CARS staff to respond to any technical difficulties with the smart phone.
- Provide ongoing supervision to all program staff

Sincerely,



Emily Stewart
Executive Director
Casa Esperanza, Inc.

CASA ESPERANZA, INC.
ADMINISTRATION
Familias Unidas Center
245 Eustis Street
Voice/TTY: (617) 445-1123
Fax: (617) 445-1126

CASA ESPERANZA
MEN'S PROGRAM
291 Eustis Street
Voice/TTY: (617) 445-7411
Fax: (617) 541-0844

LATINAS Y NIÑOS CENTER
263 Eustis Street
Voice/TTY: (617) 445-1104
Fax: (617) 541-1882

RELAPSE PREVENTION & OUTPATIENT SERVICES
Familias Unidas Center
245 Eustis Street
Voice/TTY: (617) 445-1123
Fax: (617) 445-1126

SUPPORTIVE HOUSING PROGRAM
Nueva Vida for Men
Dunmore Place for Women
8 Dunmore Street
Voice/TTY: (617) 541-0717
Fax: (617) 318-1148



SAMHSA TCE Technology Assisted Care
Year 1

PERSONNEL					
	Name	Annual	FTE	# of Months	Requested
Casa Esperanza Executive Director	E. Stewart	\$112,000	0.03	12	\$3,360
Program Services					
Deputy Director	D. De Jesus	\$76,140	0.1	12	\$7,614
Case Manager	W. Rodriguez	\$35,000	0.8	10	\$23,333
Peer Specialist	L. Blanco	\$24,960	1	10	\$20,800
Personnel Sub Total			1.93		\$55,107
Fringe Benefits					\$12,124
Total Personnel Costs					\$67,231
PROGRAM EXPENSES					
	Explanation				
Travel					
Sub-Total					\$0
Supplies					
	Mailing Supplies				204
Sub-Total					\$204
Equipment					
Sub-Total					\$0
Contractual					
	InSource Services, Inc.				\$6,300
Sub-Total					\$6,300
Other					
Sub-Total					\$0
TOTAL PROGRAM EXPENSES					\$6,504
TOTAL DIRECT COSTS					\$73,735
INDIRECT COSTS	Calculated @ 38.95%, our negotiated rate				\$26,265
TOTAL					\$100,000

SAMHSA TCE Technology Assisted Care
Year 2

PERSONNEL						
		Name	Annual	FTE	# of Months	Requested
	Program Management	E. Stewart	\$114,240	0.03	12	\$3,427
	Casa Esperanza Executive Director					
	Program Services					
	Deputy Director	D. De Jesus	\$77,663	0.1	12	\$7,766
	Case Manager	W. Rodriguez	\$35,700	0.85	12	\$30,345
	Peer Specialist	L. Blanco	\$25,459	1	12	\$25,459
	Personnel Sub Total			1.98		\$66,998
	Fringe Benefits					\$14,739
	Total Personnel Costs					\$81,737
PROGRAM EXPENSES		Explanation				
	Travel					
		Sub-Total				\$0
	Supplies					
		Mailing Supplies				\$235
		Sub-Total				\$235
	Equipment					
		Sub-Total				\$0
	Contractual					
		InSource Services, Inc.				\$6,100
		Sub-Total				\$6,100
	Other					
		Sub-Total				\$0
	TOTAL PROGRAM EXPENSES					\$6,335
	TOTAL DIRECT COSTS					\$88,072
	INDIRECT COSTS	Calculated @ 38.95%, our negotiated rate				\$31,928
	TOTAL					\$120,000

SAMHSA TCE Technology Assisted Care
Year 3

PERSONNEL					
	Name	Annual	FTE	# of Months	Requested
Program Management					
Casa Esperanza Executive Director	E. Stewart	\$116,525	0.03	12	\$3,496
Program Services					
Deputy Director	D. De Jesus	\$79,216	0.08	12	\$6,337
Case Manager	W. Rodriguez	\$36,414	0.85	12	\$30,952
Peer Specialist	L. Blanco	\$25,968	1	12	\$25,968
Personnel Sub Total			1.96		\$66,753
Fringe Benefits					\$14,686
Total Personnel Costs					\$81,439
PROGRAM EXPENSES					
	Explanation				
Travel					
	Sub-Total				\$0
Supplies					
	Mailing Supplies				\$245
	Sub-Total				\$245
Equipment					
	Sub-Total				\$0
Contractual					
	InSource Services, Inc.				\$6,500
	Sub-Total				\$6,500
Other					
	Sub-Total				\$0
TOTAL PROGRAM EXPENSES					\$6,745
TOTAL DIRECT COSTS					\$88,184
INDIRECT COSTS	Calculated @ 38.95%, our negotiated rate				\$31,816
TOTAL					\$120,000

SAMHSA TCE Technology Assisted Care

Year 1-3

PERSONNEL				
Program Management	Name	Requested	Requested	Requested
Casa Esperanza Executive Di	E. Stewart	\$3,360	\$3,427	\$3,496
Program Services				
Deputy Director	D. De Jesus	\$7,614	\$7,766	\$6,337
Case Manager	W. Rodriguez	\$23,333	\$30,345	\$30,952
Peer Specialist	L. Blanco	\$20,800	\$25,459	\$25,968
Personnel Sub Total		\$55,107	\$66,998	\$66,753
Fringe Benefits		\$12,124	\$14,739	\$14,686
Total Personnel Costs		\$67,231	\$81,737	\$81,439
PROGRAM EXPENSES	Explanation			
Travel				
	Sub-Total	\$0	\$0	\$0
Supplies				
	Mailing Supplies	\$204	\$235	\$245
	Sub-Total	\$204	\$235	\$245
Equipment				
	Sub-Total	\$0	\$0	\$0
Contractual				
	InSource Services, Inc.	\$6,300	\$6,100	\$6,500
	Sub-Total	\$6,300	\$6,100	\$6,500
Other				
	Sub-Total	\$0	\$0	\$0
TOTAL PROGRAM EXPENSES		\$6,504	\$6,335	\$6,745
TOTAL DIRECT COSTS		\$73,735	\$88,072	\$88,184
INDIRECT COSTS	Calculated @ 38.95%, our negotiated rate	\$26,265	\$31,928	\$31,816
TOTAL		\$100,000	\$120,000	\$120,000

BUDGET JUSTIFICATION

The proposed project budget outlines projected costs associated with the *Targeted Capacity Expansion Technology Assisted Care* grant, ***En Comunicación***

Personnel -

Executive Director – Emily Stewart

Ms. Stewart will devote 3% of her time on the contract to ensure the project progresses in a timely manner, that all proposed program components are delivered to the target population, and address barriers to implementation. She will oversee multiple aspects of the project including: integration into Agency-wide systems; and IT infrastructure development.

Deputy Director – Diliana De Jesus,

Ms. De Jesus will devote 10% of her time on the contract to coordinate all contract compliance and manage all bi-annual, annual and final reports; oversee data collection and outcomes reporting; monitor program goals and objectives; implement quality assurance systems and serve as primary contact to BU and work with BU Staff to set up the initial contacts for the smart phones.

Case Manager – Wanda Rodriguez

Ms. Rodriguez will be responsible for providing case management services to program participants, including being available via smart phones to set up necessary appointments with health care, mental health care and addiction treatment providers and provide support and crisis intervention, as needed. She will complete GPRA baseline interviews and assist BU staff in conducting local evaluation interviews.

Peer Specialist – Luis Blanco

Mr. Blanco will provide non-clinical services intended to provide ongoing support to program participants and connect them to community resources, including monitoring program chat and online discussion; facilitate a smart phone group to help participants connect, share useful links, and troubleshoot technology issues; and communicating concerns to the Case Manager if participants seem to be at risk for relapse. He will work with BU to track phone use, panic button use and weekly self-ratings and to conduct outreach to ensure 6 month and 12 months follow up interviews are completed in a timely manner.

Fringe -

Fringe for the above positions is calculated at a rate of 22%, and is broken down by the following: 9.65% payroll tax; 7% health insurance, 2.85% retirement plan, and 2.5% unemployment and workers compensation.

Supplies -

In our previous work, we have found that the most effective and secure way to transfer hard-copy questionnaires to Boston University is via overnight mail service. This will cover the cost of mailing and mailing supplies.

Contractual - \$6,300

InSource Services, Inc. InSource Services has served as Casa Esperanza's IT Consultant for more than 7 years. This will cover the staff of the IT staff assisting in the initial set up process; responding to any technical difficulties with the smart phones and serving as a resource for other technology related program components.

Indirect Costs:

Indirect Costs are calculated at the rate of 38.95%, as negotiated per the Indirect Cost Rate Agreement with HHS dated February, 2013.



OFFICE OF RESEARCH AND SPONSORED PROGRAMS

UW Reference # MSN164149

**Boston University
Substance Abuse & Mental Health Services Administration**

PI: Kimberly Johnson

Smartphone Technology to Reduce Relapse Among Latinos with Mental Health and Substance Abuse Disorders

This proposal has been administratively approved on behalf of the Board of Regents of the University of Wisconsin System and is submitted for your consideration. Please keep our office advised as developments occur with regard to this application.

The appropriate programmatic and administrative personnel of each institution involved in this application are aware of the sponsor's grant policy and are prepared to establish the necessary inter-institutional agreement(s) consistent with that policy.

All costs cited conform to established institutional policies and procedures. Our DHHS Negotiated Rate Agreement can be found at <http://www.rsp.wisc.edu/rates/rates.pdf>. Website: <http://www.rsp.wisc.edu/>

A final agreement is contingent upon the successful negotiation of terms and conditions acceptable to the University of Wisconsin-Madison.

Federal Conflict of Interest - The University of Wisconsin is listed in the FDP Clearinghouse as a PHS FCOI Compliant Institution.

We ask that you use the University's above-referenced proposal number in any future correspondence.

Questions regarding administrative matters should be directed to:

PreAward Services by email: preaward@rsp.wisc.edu or by phone: (608) 262-3822.

Questions regarding the technical nature of this application should be directed to:

The Principal Investigator.

A handwritten signature in blue ink that appears to read "Nicolas Novak".

Nicolas Novak, Managing Officer, PreAward Services

April 1, 2013
Date

Grants.Gov Budget Form

Date: 3/28/2013
 Contact Kimberly Johnson
 Project Boston Univ-Tech Grant

	Months	cal	aca	sum	Yr. 1				Yr. 2				Yr.3				Total	
					Base Sal	Year 1	F/B	Total	Base Sal	Year 2	F/B	Total	Base Sal	Year 3	F/B	Total	Project	
A. Senior Personnel					\$ 105,921	\$ 1,059	\$ 434	\$ 1,493	\$ 108,039	\$ 1,080	\$ 443	\$ 1,523	\$ 110,200	\$ 1,102	\$ 452	\$ 1,554	\$ 4,571	
1 Kim Johnson (PI-Key)	0.12				\$ 101,345	\$ 14,188	\$ 5,817	\$ 20,006	\$ 103,372	\$ 2,067	\$ 848	\$ 2,915	\$ 105,439	\$ 2,109	\$ 865	\$ 2,973	\$ 25,894	
2 Haile Berhe (2% Yr 2&3)	1.68				\$ 67,517	\$ 6,752	\$ 2,768	\$ 9,520	\$ 68,867	\$ 689	\$ 282	\$ 971	\$ 70,245	\$ 702	\$ 288	\$ 990	\$ 11,481	
3 Susan Dinauer (1% Yr 2&3)	1.20				\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	
4					\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	
5					\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	
6					\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	
7					\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	
8					\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	
9					\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	
10					\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	
11					\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	
12					\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	
13					\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	
14					\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	
15					\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	
16					\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	
Total Senior Personnel					\$ 21,999	\$ 9,020	\$ 31,019		\$ 3,837	\$ 1,573	\$ 5,409		\$ 3,913	\$ 1,604	\$ 5,518	\$ 41,946		
B. Other Personnel	# employees	cal mos.																
1. Post Doctoral Fellows/Trainees	0 @				\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	
2. Other Professionals	0 @				\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	
3. Graduate Students (Res Asst)	0 @				\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	
4. Undergraduate Students (Hourly)	1 @	0.48			20,800	832	19	851	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	851	
5. Secretarial-Clerical (Classified)	0 @				\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	
6. Other (LTE)	0 @				\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	
Total Other Personnel					\$ 832	\$ 19	\$ 851		\$ 3,837	\$ 1,573	\$ 5,409		\$ 3,913	\$ 1,604	\$ 5,518	\$ 42,797		
Total Salaries & Wages A+B					\$ 22,831	\$ 9,039	\$ 31,870											
C. Fringe Benefits																		
0.41 *A1	0.023 *B4					\$ 9,039												
0.178 *B1	0.560 *B5																12,216	
0.41 *B2	0.200 *B6																	
Total S&W + FB					\$ 31,870	\$ 9,039	\$ 31,870		\$ 5,410					\$ 5,517		\$ 83,706		
D. Equipment																		
1.					\$ -				\$ -					\$ -		\$ -		
2.					\$ -				\$ -					\$ -		\$ -		
3.					\$ -				\$ -					\$ -		\$ -		
Total Equipment					\$ -				\$ -									
E. Travel																		
1. Domestic					\$ -				\$ -					\$ -		\$ -		
2. Foreign					\$ -				\$ -					\$ -		\$ -		
Total					\$ -				\$ -									
F. Participant Support Costs																		
1. Stipends					\$ -				\$ -					\$ -		\$ -		
2. Student Fees					\$ -				\$ -					\$ -		\$ -		
3. Trainee Travel					\$ -				\$ -					\$ -		\$ -		
4. Other					\$ -				\$ -					\$ -		\$ -		
Total					\$ -				\$ -									
F. Other Direct Costs																		
1. Materials & Supplies (videography, content/training materials)					\$ -				\$ -					\$ -		\$ -		
2. Publications					\$ -				\$ -					\$ -		\$ -		
3.					\$ -				\$ -					\$ -		\$ -		
4. Subcontracts direct (Sub 1)					\$ -				\$ -					\$ -		\$ -		
5. Subcontracts direct (Sub 2)					\$ -				\$ -					\$ -		\$ -		
6.					\$ -				\$ -					\$ -		\$ -		
7. Survey Incentives					\$ -				\$ -					\$ -		\$ -		
8. Tuition Remission	8000/student				\$ -				\$ -					\$ -		\$ -		
9. Consultants					\$ -				\$ -					\$ -		\$ -		
10. Consultant					\$ -				\$ -					\$ -		\$ -		
11. Incentive Payments					\$ -				\$ -					\$ -		\$ -		
12. Vendor payment					\$ -				\$ -					\$ -		\$ -		
13. Vendor payment					\$ -				\$ -					\$ -		\$ -		
14. Other - Printing Costs - Dissemination					\$ -				\$ -					\$ -		\$ -		
Total Other Direct Costs					\$ -				\$ -					\$ -		\$ -		
G. Total Direct Costs					\$ 31,870				\$ 5,409					\$ 5,518		\$ 42,797		
H. Indirect Costs					\$ 11,473				\$ 1,947					\$ 1,986		\$ 15,406		
36.0% of G-D-F5>25,000-G6																		
H1. Subcontract F&A (Sub 1)					\$ -				\$ -					\$ -		\$ -		
H2. Subcontract F&A																		

University of Wisconsin – Madison
Personnel Justification

Personnel

Kimberly Johnson, MSEd, MBA - Principal Investigator	0.36 calendar mos
Ms. Johnson is the primary point of contact for the University of Wisconsin on this project and will be responsible for all project activities. Ms. Johnson is currently the Co-Deputy Director for NIATx as well as the Director of the ACTION Campaign. She has worked in the field of substance abuse prevention and treatment since 1989. She has managed treatment programs and served as the single state authority for the state of Maine from 2000-2007, where she worked to increase available treatment capacity by 35 percent during that time.	
Susan Dinauer, BA - Consortium Director and Technical Core Leader	1.2 calendar mos (Yr 1)
	0.12 calendar mos (Yr 2 & 3)
Ms. Dinauer has been a researcher on CHESS projects and development for over a decade. Ms. Dinauer is Director of the CHEC Research Consortium and is currently working with the implementation of ACHESS with the consortium member agencies. Ms. Dinauer has also been the supervisor for the CHESS technical team for the past several years. For this project, Ms. Dinauer will assist with the implementation of ACHESS and lead the technical core team throughout the project to assure that technical requirements are completed in a timely fashion.	
Haile Berhe, BS – Senior Programmer, Director of Software Architecture	1.68 calendar mos (Yr 1)
	0.24 calendar mos (Yr 2 & 3)
Mr. Berhe has been lead programmer of CHESS since its inception in 1989 and supervises the Software Architecture Team to maintain system coordination and compatibility. For this project, Mr. Berhe code the Spanish translation and write code for the medication management tool in Year 1. In Years 2 and 3 he will work with project staff to address any concerns or adjustments that need to be made.	
Student Hourly, TBD	.48 calendar mos (Yr 1)
A student hourly employee will be hired to assist tech programming and content translation. This student will work closely with Haile Behre to complete their assigned tasks.	

MEMORANDUM OF AGREEMENT BETWEEN

(name of donor)

and the

UNIVERSITY OF WISCONSIN-MADISON

In regard to the

CHESS HEALTH EDUCATION CONSORTIUM

The _____ of _____
(name of donor) (address)
desires to provide funds for support of the CHESS Health Education Consortium
(CHEC).

- 1) The CHEC will be under the administration of the Comprehensive Health Enhancement Support System (CHESS) of the University of Wisconsin-Madison (UW), and its activities will be conducted under the supervision of the Center Director, Dr. David Gustfason, or his/her successor.
- 2) In support of the CHEC, the Donor will contribute to the University of Wisconsin Foundation the sum of \$10,000 as the Membership Fee for a one-year membership in the CHEC, to be paid upon acceptance of the Agreement by the Center Director and Dean of the College of Engineering. Checks should be made payable to University of Wisconsin Foundation and sent to the Center Director, University of Wisconsin-Madison, Madison, Wisconsin.
- 3) The Donor declares its intent to provide annual membership fees to support the CHEC for at least ONE year(s). This declaration of intent does not obligate the Donor to make such payments, but the Donor will attempt in good faith to provide at least one year's notice of any intent to withdraw or reduce its level of support.
- 4) The University of Wisconsin Foundation will keep these funds in a segregated account and will transfer them to the CHESS of the University of Wisconsin-Madison for the support of the CHEC on the instruction of either the Center Director or his/her authorized representative. These funds will be used to support the various activities of the CHEC as indicated below, including, but not limited to: purchase of necessary supplies and equipment; defraying of travel and other necessary expenses; expenses for conducting conferences, workshops and seminars; costs for development and dissemination of communications; support for graduate research assistants and/or faculty; and to employ other competent workers to carry on the CHEC activities.

- 5) The University will furnish laboratory facilities and such usual equipment as is required for the CHEC activities insofar as the facilities of the University will permit.
- 6) Upon the termination of this agreement, any equipment, materials or supplies in stock will remain the property of the University of Wisconsin-Madison.
- 7) The CHEC will carry out the following activities:
 - a) Conduct applied research projects to understand the problems and issues related to advancing treatment. These projects may include student team projects, graduate student independent study projects, or faculty projects. Members will influence the development and dissemination of new tools and strategies and techniques for using the tools, including the mobile health system called A-CHESS (Addiction CHESS).
 - b) Organize workshops, teleconferences, web site communications and other informal communication methods for Donors to describe implementation problems, exchange information related to such problems, and develop solutions to them.
 - c) Organize an annual conference of Donors, students, and faculty on the subject of mobile health systems. The conference will focus on the latest theories and allow Donors, students, and faculty to present and share their experiences with implementing A-CHESS.
 - d) Organize educational seminars, targeted towards health-care providers, payers, and policy makers, on basics of implementing A-CHESS as well as on leading-edge mobile health systems concepts incorporating knowledge obtained from the applied research projects.
 - e) Conduct benchmarking studies by collecting performance information from Donors on activities related to A-CHESS and make this information available to all Donors.
 - f) Document and distribute reports on A-CHESS activities. These reports will include case studies and lessons learned from the research projects, benchmarking efforts, workshops, and conferences.
- 8) The Donor understands that the University, in accepting these funds for the purpose and activities herein stated, intends that they shall be used for the promotion of scientific knowledge in the field of health information systems and that the results of such research shall be made public by the University, through publication or otherwise, in any manner that it may deem desirable, keeping in mind that the public interest or welfare shall be dominant. However, no information that is

confidential or proprietary to a Donor, and that has clearly been identified as such, will be included in any of the CHEC reports or public seminars/conferences.

This memorandum is declared effective upon the signatures of the Director of CHESS and the Dean of the College of Engineering, University of Wisconsin-Madison, and the proper officials for Advocates, Inc. and will be in effect for one year from ____ - ____.

Authorized Signature for Donor

Date

Center Director

Date

Dean, College of Engineering

Date

Application for Federal Assistance SF-424

* 1. Type of Submission:	* 2. Type of Application:	* If Revision, select appropriate letter(s):	
<input type="checkbox"/> Preapplication <input checked="" type="checkbox"/> Application <input type="checkbox"/> Changed/Corrected Application	<input checked="" type="checkbox"/> New <input type="checkbox"/> Continuation <input type="checkbox"/> Revision	<input type="text"/>	
* 3. Date Received:		4. Applicant Identifier:	
<input type="text" value="04/09/2013"/>		<input type="text"/>	
5a. Federal Entity Identifier:		5b. Federal Award Identifier:	
<input type="text"/>		<input type="text"/>	
State Use Only:			
6. Date Received by State:	<input type="text"/>	7. State Application Identifier:	<input type="text"/>
8. APPLICANT INFORMATION:			
* a. Legal Name: <input type="text" value="Trustees of Boston University"/>			
* b. Employer/Taxpayer Identification Number (EIN/TIN): <input type="text" value="042103547"/>		* c. Organizational DUNS: <input type="text" value="0494352660000"/>	
d. Address:			
* Street1:	<input type="text" value="881 Commonwealth Avenue"/>		
Street2:	<input type="text"/>		
* City:	<input type="text" value="Boston"/>		
County/Parish:	<input type="text"/>		
* State:	<input type="text" value="MA: Massachusetts"/>		
Province:	<input type="text"/>		
* Country:	<input type="text" value="USA: UNITED STATES"/>		
* Zip / Postal Code:	<input type="text" value="02215-1300"/>		
e. Organizational Unit:			
Department Name: <input type="text" value="Social Work"/>	Division Name: <input type="text" value="Clinical Practice"/>		
f. Name and contact information of person to be contacted on matters involving this application:			
Prefix:	<input type="text"/>	* First Name:	<input type="text" value="Jennier"/>
Middle Name:	<input type="text"/>	<input type="text"/>	
* Last Name:	<input type="text" value="Marron"/>		
Suffix:	<input type="text"/>		
Title:	<input type="text" value="Associate Director"/>		
Organizational Affiliation: <input type="text" value="Trustees of Boston University"/>			
* Telephone Number:	<input type="text" value="617-353-4365"/>	Fax Number:	<input type="text" value="617-353-6660"/>
* Email:	<input type="text" value="ospera@bu.edu"/>		

Application for Federal Assistance SF-424

* 9. Type of Applicant 1: Select Applicant Type:

0: Private Institution of Higher Education

Type of Applicant 2: Select Applicant Type:

Type of Applicant 3: Select Applicant Type:

* Other (specify):

* 10. Name of Federal Agency:

Substance Abuse & Mental Health Services Adminis.

11. Catalog of Federal Domestic Assistance Number:

93.243

CFDA Title:

Substance Abuse and Mental Health Services_Projects of Regional and National Significance

* 12. Funding Opportunity Number:

TI-13-008

* Title:

Grants to Expand the Use of Technology-Assisted Care in Targeted Areas of Need

13. Competition Identification Number:

Title:

14. Areas Affected by Project (Cities, Counties, States, etc.):

Add Attachment

Delete Attachment

View Attachment

* 15. Descriptive Title of Applicant's Project:

Smartphone Technology to Reduce Relapse Among Latinos with Mental Health and Substance Abuse Disorders

Attach supporting documents as specified in agency instructions.

Add Attachments

Delete Attachments

View Attachments

Application for Federal Assistance SF-424

16. Congressional Districts Of:

* a. Applicant

b. Program/Project

Attach an additional list of Program/Project Congressional Districts if needed.

17. Proposed Project:

* a. Start Date:

* b. End Date:

18. Estimated Funding (\$):

* a. Federal	<input type="text" value="839,997.00"/>
* b. Applicant	<input type="text" value="0.00"/>
* c. State	<input type="text" value="0.00"/>
* d. Local	<input type="text" value="0.00"/>
* e. Other	<input type="text" value="0.00"/>
* f. Program Income	<input type="text" value="0.00"/>
* g. TOTAL	<input type="text" value="839,997.00"/>

* 19. Is Application Subject to Review By State Under Executive Order 12372 Process?

- a. This application was made available to the State under the Executive Order 12372 Process for review on .
- b. Program is subject to E.O. 12372 but has not been selected by the State for review.
- c. Program is not covered by E.O. 12372.

* 20. Is the Applicant Delinquent On Any Federal Debt? (If "Yes," provide explanation in attachment.)

Yes No

If "Yes", provide explanation and attach

21. *By signing this application, I certify (1) to the statements contained in the list of certifications** and (2) that the statements herein are true, complete and accurate to the best of my knowledge. I also provide the required assurances** and agree to comply with any resulting terms if I accept an award. I am aware that any false, fictitious, or fraudulent statements or claims may subject me to criminal, civil, or administrative penalties. (U.S. Code, Title 218, Section 1001)

** I AGREE

** The list of certifications and assurances, or an internet site where you may obtain this list, is contained in the announcement or agency specific instructions.

Authorized Representative:

Prefix: * First Name:

Middle Name:

* Last Name:

Suffix:

* Title:

* Telephone Number: Fax Number:

* Email:

* Signature of Authorized Representative: * Date Signed:

BUDGET INFORMATION - Non-Construction Programs

OMB Number: 4040-0006
Expiration Date: 06/30/2014

SECTION A - BUDGET SUMMARY

Grant Program Function or Activity (a)	Catalog of Federal Domestic Assistance Number (b)	Estimated Unobligated Funds		New or Revised Budget		
		Federal (c)	Non-Federal (d)	Federal (e)	Non-Federal (f)	Total (g)
1. TI-13-008 Year 1	93.243	\$ []	\$ []	\$ 279,998.00	\$ []	\$ 279,998.00
2. TI-13-008 Year 2	93.243	[]	[]	280,000.00	[]	280,000.00
3. TI-13-008 Year 3	93.243	[]	[]	279,999.00	[]	279,999.00
4.	[]	[]	[]	[]	[]	[]
5. Totals		\$ []	\$ []	\$ 839,997.00	\$ []	\$ 839,997.00

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SECTION B - BUDGET CATEGORIES

6. Object Class Categories	GRANT PROGRAM, FUNCTION OR ACTIVITY				Total (5)
	(1) TI-13-008 Year 1	(2) TI-13-008 Year 2	(3) TI-13-008 Year 3	(4)	
a. Personnel	\$ 46,793.00	\$ 68,541.00	\$ 67,544.00	\$	\$ 182,878.00
b. Fringe Benefits	9,951.00	12,891.00	12,612.00		35,454.00
c. Travel	1,500.00	2,328.00	2,500.00		6,328.00
d. Equipment	0.00	0.00	0.00		
e. Supplies	16,000.00	15,450.00	15,914.00		47,364.00
f. Contractual	153,343.00	137,356.00	137,504.00		428,203.00
g. Construction	0.00	0.00	0.00		
h. Other	2,700.00	2,781.00	3,312.00		8,793.00
i. Total Direct Charges (sum of 6a-6h)	230,287.00	239,347.00	239,386.00		\$ 709,020.00
j. Indirect Charges	49,711.00	40,653.00	40,613.00		\$ 130,977.00
k. TOTALS (sum of 6i and 6j)	\$ 279,998.00	\$ 280,000.00	\$ 279,999.00		\$ 839,997.00
7. Program Income	\$	\$	\$	\$	\$

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SECTION C - NON-FEDERAL RESOURCES

	(a) Grant Program	(b) Applicant	(c) State	(d) Other Sources	(e)TOTALS
8.	TI-13-008 Year 2	\$ []	\$ []	\$ []	\$ []
9.	TI-13-008 Year 3	[]	[]	[]	[]
10.	[]	[]	[]	[]	[]
11.	[]	[]	[]	[]	[]
12. TOTAL (sum of lines 8-11)	\$ []	\$ []	\$ []	\$ []	\$ []

SECTION D - FORECASTED CASH NEEDS

	Total for 1st Year	1st Quarter	2nd Quarter	3rd Quarter	4th Quarter
13. Federal	\$ 279,998.00	\$ 69,999.50	\$ 69,999.50	\$ 69,999.50	\$ 69,999.50
14. Non-Federal	\$ []	[]	[]	[]	[]
15. TOTAL (sum of lines 13 and 14)	\$ 279,998.00	\$ 69,999.50	\$ 69,999.50	\$ 69,999.50	\$ 69,999.50

SECTION E - BUDGET ESTIMATES OF FEDERAL FUNDS NEEDED FOR BALANCE OF THE PROJECT

(a) Grant Program	FUTURE FUNDING PERIODS (YEARS)			
	(b)First	(c) Second	(d) Third	(e) Fourth
16. TI-13-008	\$ 279,998.00	\$ 280,000.00	\$ 279,999.00	\$ []
17. []	[]	[]	[]	[]
18. []	[]	[]	[]	[]
19. []	[]	[]	[]	[]
20. TOTAL (sum of lines 16 - 19)	\$ 279,998.00	\$ 280,000.00	\$ 279,999.00	\$ []

SECTION F - OTHER BUDGET INFORMATION

21. Direct Charges:	[]	22. Indirect Charges:	[]
23. Remarks: []			

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Abstract: The *Smartphone Technology to Reduce Relapse Among Latinos with Mental Health and Substance Abuse Disorders* project is a three-year program effort to provide expanded care coordination using Health Information Technology, specifically the A-CHESS application for Smartphones to Latino drug users with co-occurring mental health disorders who are in recovery. This Technology is proposed to respond to the needs of 120 male and female Latino/a participants, assessed as having an alcohol and/or other drug (AOD) and mental health disorders (MHD), age 18+, and completing residential treatment at Casa Esperanza. The proposed project seeks funding to purchase Smartphones and equip them with the Addiction Comprehensive Health Enhancement Support System (A-CHESS), a promising evidence based practice developed by the Center for Health Enhancement Systems Studies at the University of Wisconsin, Madison. Initial funds will be used to adapt the existing A-CHESS technology into Spanish and add a medication adherence component. A-CHESS may be especially appealing to a Latino sample, given the higher rates of Smartphone use among Latinos, exceeding that of Whites (45% vs 30%), and Latinos report being very open to mobile health interventions. Clients with co-occurring disorders who completed Casa Esperanza residential treatment and Casa Esperanza staff will receive training in the use of smartphones and A-CHESS. The project will distribute Smartphones with A-CHESS to 40 Latina/o drug users who have successfully completed treatment for co-occurring AOD and MHD at Casa Esperanza each year for three years. A case manager and peer specialist will be available through the smartphone 24/7 to respond to immediate requests from clients using the smartphone technology throughout this project time. The case manager will work with the client to develop a discharge plan which includes the use of A-CHESS. The Peer Specialist will provide peer-to-peer recovery support through A-CHESS to all clients in this project. The BU CARS team is experienced with technology, adapting interventions for Latino dual diagnosis patients, and with conducting SAMHSA funded evaluations. They will conduct a local process and outcome evaluation in addition to GPRA performance assessment. The outcome evaluation will include a comparison group of Latina/o treatment completers with AOD and MHD who will not use A-CHESS. A-CHESS has been tested with participants with alcohol and/or drug dependence in residential treatment and in Drug Court. Key limitations of these prior projects are that the clients are predominantly White and have lower rates of dual diagnosis. This project will include a sample that is at least 95% Latino, at least 40% Spanish-speaking only, and only those with a dual-diagnosis. The evaluation will examine if the project reached the following outcomes: (1) reduced risk of alcohol/drug relapse, (2) increased medication adherence, (3) improved mental well-being, (4) improved social connectedness and (5) independent living post treatment graduation. Data will also be collected and analyzed on the use of specific A-CHESS features.

Boston University Center for Addictions Research and Services (BU CARS)
Smartphone Technology to Reduce Relapse Among Latinos with Mental Health and
Substance Abuse Disorders

Table of Contents

Face Page SF-424	
Abstract	1
Table of Contents	2
Project Narrative and Supporting Documentation	
▪ A. Population of Focus and Statement of Need	4
• Demographic Profile	4
• Population of Focus Relative to Geographic Focus	4
• Nature of Problem and Extent of Need	5
▪ B. Proposed Evidence-Based Service/Practice	8
• Purpose of proposed Project, Goals, and Objective	8
• Evidence-Based Practice (EBP)	10
• Disparities Addressed by EBP	15
• Modifications to EBP	13
▪ C. Proposed Implementation Approach	17
• Support for Strategic Initiative: Health Information Technology	17
• Experience Using Technology for Treatment	17
• Factors Influencing Expansion/ Enchantment of Technology	18
• Obtaining Consent	18
• Meaningful and Relevant Results for Community	18
• Screening for Co-occurring disorders	20
• Time Line	20
• Strategies to Identify, Recruit and Retain Population of Focus	21
• Engaging participants in their own care	22
• Participation of Other Organizations	23
• Proposed Number of Individuals to Serve	24
• Per-Unit Cost of Program	24
▪ D. Staff and Organizational Experience	24
• Capability and Experience of Applicant Organization	24
• Project Staff and Key Personnel	26
• Demonstrated Staff Experience Serving Population	26
▪ E. Data Collection and Performance Measurement	28
• Ability to Collect and Report on Required Measures	28
• Quality Improvement Process	29
• Local Performance Assessment	30
▪ F. Electronic Health Record (EHR) Technology	32
• Plan to Acquire EHR System	32
Budget Justification, Existing Resources, Other Support	34

▪ G. Literature Citations	36
▪ H. Biographical Sketches and Job Descriptions	46
▪ I. Confidentiality and SAMHSA Participant Protection/ Human Subjects	56
6. Attachments	
▪ <i>Attachment 1:</i> Service Providers	63
• Identification of Provider	63
• List of All Participating Organizations	63
• Statement of Assurance	64
• Letters of Commitment	65
▪ <i>Attachment 2:</i> Data Collection Instruments/Interview Protocols	67
▪ <i>Attachment 3:</i> Sample Consent Forms	81
▪ <i>Attachment 4:</i> N/A	
▪ <i>Additional Attachment:</i> Evidence of Nonprofit Status	84

A. POPULATION OF FOCUS & STATEMENT OF NEED

Introduction

The Boston University Center for Addictions Research and Services (BU CARS) in collaboration with Casa Esperanza, Inc. request funding from the Center for Substance Abuse Treatment to provide expanded care and care coordination using Health Information Technology, specifically the Addiction Comprehensive Health Enhancement Support System (A-CHESS) application for smartphones to Latino participants with alcohol and/or other drug (AOD) and mental health disorders (MHD) who are in recovery. The BU CARS will serve as the lead agency, collaborating with the developers of a promising evidence-based practice, A-CHESS, at the Center for Health Enhancement Systems Studies at the University of Wisconsin (WI), Madison to develop a Spanish version of A-CHESS and add a medication adherence component to this relapse prevention tool. BU CARS will oversee the implementation of the enhanced care coordination which will take place at Casa Esperanza, a community-based residential/outpatient treatment agency, and conduct the outcome and process evaluation of the proposed effort.

A1. Demographic Profile

The population of focus will be 65% male and 35% female, predominantly from the Greater Boston area, although a significant number of individuals served at Casa Esperanza come from other urban areas across Massachusetts with large Latino populations, including Springfield, Holyoke, Lawrence, Lowell, Brockton and Worcester. More than 95% will identify as Latino, and 40% will be monolingual Spanish speakers with limited or no English skills; 56% will lack a high school diploma, and many will have limited written literacy in either English or Spanish; 95% will live in non-permanent housing; and 93% will be unemployed and lack a source of income upon their entry into services. The majority of the population of focus (97%) will identify as heterosexual, 3% will identify as Gay/Lesbian, 5% bisexual and less than 1% as Transgender. In terms of ethnicity, the population served will be approximately 85% Puerto Rican, a community that demonstrates high levels of heroin and crack cocaine use, particularly through injection drug use; Dominicans, typically with a cocaine addiction, will be the next largest group; and Latinos from other countries, including El Salvador, Guatemala, Colombia, Chile, Cuba, and the Cape Verde Islands, typically present with alcohol addiction.

Anticipated baselines: Based on previous experience and existing GPRA data, Casa expects of those using illegal drugs: 67% will have used heroin, 55% will have used cocaine; 55% will have injected drugs in the past 30 days; and of those, 53% will have shared needles or works in the past 30 days; 32% percent will report their health status as fair or poor; 57% will report depression; 62% will report anxiety or tension, 47% will report having trouble remembering or concentrating, and 46% will report having psychiatric medications prescribed in the past 30 days.

A2. Population of Focus Relative to Geographic Area

As the state's first bilingual/bicultural substance abuse treatment program, and the only bilingual/ bicultural agency in Massachusetts with a continuum of care spanning residential, outpatient and supportive housing services, Casa Esperanza, Inc., located in Roxbury, MA, maintains a unique geographic and functional understanding of this underserved population. Data indicate a high degree of need for services, particularly for individuals with co-occurring disorders who have limited English capacity.

Substance Abuse. Roxbury, MA is home to the second largest Latino population in the City of Boston, which has increased from 22.0% in 2000 to 31.9% in 2010. In 2010, Latinos had the highest rate of substance abuse treatment admissions of all racial/ethnic groups in Boston (38.8 per 1,000 population). From 2001 to 2010, the Latino heroin treatment admissions rate was

highest among racial/ethnic groups— almost eight times the rate for Asian residents and more than twice the rate for Black residents. From 2001 to 2010, the percentage of injection drug use as primary route of drug administration among primary heroin treatment admissions increased 36% for Latino client admissions. Latino residents had the highest heroin/opioid mortality rates among all Boston residents (19.9 per 100,000 population) (Substance Abuse in Boston, 2011).

Racial/ Ethnic Health Disparities. Latinos in Massachusetts are less likely to have health insurance and access routine preventive care than non-Latinos, less likely to practice healthy behaviors; and nearly twice as likely to report being unable to see a doctor due to cost (MDPH, 2007). Latinos in Greater Boston experience a greater burden of chronic and infectious diseases, including HIV/AIDS, heart disease, and asthma, and have the largest percentage (12.2%) without medical insurance of all ethno-racial groups (Granberry et al, 2013).

Socioeconomic Status. In Massachusetts, 24.9% of Latino families were living in poverty in 2004, compared with 7.1% of all families. According to the Health of Boston (2013), between 2006-2010, Latino residents had the lowest median annual household income of all racial/ethnic groups (\$29,886 versus the citywide median of \$49,893) the highest rate of poverty (35% vs. 23% overall), and the lowest rates of high school graduation (57% versus 63% overall). The percentage of Boston residents with less than a high school diploma or GED was significantly higher among Latino adults (32%) compared to the city overall (14%). Latinas had the highest unemployment rate (23%) of all groups, significantly higher than the overall rate for women (11%); Latinos had the second highest unemployment rate (19%) compared to the rate for all men (15%). Poverty and substance abuse are intricately related; the substance abusing population has a 15-30% employment rate compared to 71-76% for non-abusers (TIP, 2000).

A3. Nature of the Problem and Extent of Need

Problem: Health Disparities. Latinos are the fastest growing ethnic group in Massachusetts (Granberry & Rustan, 2010) and bear a disproportionate burden of disease, mental illness, poverty, and homelessness (HOB, 2011; Granberry & Rustan, 2010). Currently, 95% of men and 99% of women served at Casa have at least one diagnosed behavioral health disorder, and nearly all clients meet criteria for severe mental illness (SMI) at the time of their intake. Individuals with multiple behavioral health diagnoses enter care with chronic and acute health issues reflecting a combination of factors, including the cumulative effects of substance abuse. Latinos with co-occurring disorders face unique challenges in developing and maintaining strategies to overcome the inevitable obstacles that arise within the lifelong process of recovery. Clients face other chronic health conditions, financial and legal issues, and problems with housing and employment, both resulting from and affected by their addiction and mental health disorders. These challenges bring greater risk for disengagement from services, non-adherence to medication and self-care strategies, and behavioral health crises that undermine quality of life and capacity to sustain employment, and increase likelihood of relapse and recidivism.

In 2009, the diabetes hospitalization rate for Latino residents in Boston was approximately four times the rate for Whites. In 2008 and 2009, Latino residents had higher rates of hospitalization for heart disease compared with White residents. Latinos in Massachusetts are less likely to have health insurance and access routine preventive care than non-Latinos, and less likely to perform healthy behaviors; and nearly twice as likely to report being unable to see a doctor due to cost (MDPH, 2007). Seventy-six percent (76%) of Latinos have adequate health care coverage compared with 91% of the general population (Vega et al., 2009). Latinos in Boston have the greatest percentage without medical insurance (10.7%) of any ethno-racial group (Granberry & Rustan, 2010). This disparity in coverage leads to deficient preventive care, late detection of

disease, and poor chronic disease management. Latinos have higher rates and incidence of obesity in Boston compared with their White non-Hispanic counterparts (HOB, 2011), correlating nationally to Latinos experiencing higher rates of diabetes mellitus (Vega et al., 2009). Key stakeholders, from staff to government, and peer stakeholders from clients to graduates agree the top strategic priority for Casa is to provide greater integration and coordination of medical, health and wellness services into its continuum of care.

Extent of Need: Specific Challenges in Maintaining Recovery. Three decades of experience, backed by Casa's research and others, indicate that dually-diagnosed individuals present with more severe substance abuse, greater psychosocial problems, have poorer treatment outcomes, and more frequent relapses. These challenges among the substance-using Latino population are marked by a number of factors: **Need for Treatment of Co-Occurring Disorders:** A 2004 Massachusetts study indicated that having a dual diagnosis was associated with a greater likelihood of being on probation, being homeless, and criminal recidivism (Hartwell, 2004). Individuals with co-occurring disorders have higher prevalence of chronic health problems, including HIV/AIDS, Hepatitis, asthma, hypertension, and chronic obstructive pulmonary disease (COPD). Individuals experiencing both SMI and addiction disorders have more severe substance abuse, more psychosocial problems, poorer treatment outcomes and more frequent relapse (Brooner et al., 1997; Rounsville et al., 1986; Strain, 2002; Goodman, Hankin & Nishiura, 1997). Tobacco use far exceeds that of the general population (20.6%), when comparing people with SMI (88%) and with substance abuse disorders (80%) (CDC, 2006).

Need for Culturally Competent Mental Health Care: Beyond language, cultural, and cost barriers, Latinos face structural barriers to primary health care (Betancourt, Green, Carillo, Ananeh-Firempong, 2003). Reluctance by Latinos to access mental health services often results in relapse, and can be directly attributed to a lack of culturally and linguistically competent services. According to the Center for Mental Health Services, only 29 Latino mental health professionals are in practice for every 100,000 Latinos in the U.S. population, compared to 173 providers per 100,000 for Whites. Among Latinos with mental health disorders, less than 1 in 11 will contact a relevant specialist; less than 1 in 5 will contact a general health provider.

Homelessness: Poor mental health affects physical health, especially for homeless individuals who face barriers to treating and preventing disease, and who are exposed to higher rates of substance abuse (National Coalition for the Homeless, 2009). According to City of Boston's 2008-2009 Annual Homeless Census, 16% of homeless individuals and 43% of homeless families identified as Hispanic/Latino. **Need for Social Connectedness:** Consistent with high rates of poverty and unemployment in the Latino population, the population of focus lacks "soft skills", such as interpersonal communication and conflict resolution. Building networks of support early in recovery is vital to avoiding risky behaviors and habits, in addition to being an essential practical skill necessary for employment, positive social interactions and relationships, and to maintaining stable housing. Research on Latinos in treatment has consistently endorsed the positive impact of Latino/a counselors and peers in their treatment programs, citing the building of trust as an outcome of ethnic similarity (Hohman, 1999; Porter, 1999; Trepper, Nelson, McCollum & McAvoy, 1997). Consumer-delivered services are also recognized as an important intervention for populations with co-occurring disorders. The importance of early and sustained recovery support is further indicated by treatment-related studies confirming that most people with AOD-related problems do not seek help through mutual aid or professional treatment (Kessler, 1994; Cunningham, 1999; Cunningham & Breslin, 2004) and that the transition from recovery initiation to life-long recovery maintenance is mediated by processes of

social support (Jason, Davis, Ferrari & Bishop, 2001; Humphreys, Mankowski, Moos & Finney, 1999). Social supports are essential in coping with the stigma that persists within the Latino community around addiction and mental health disorders. As individuals work to develop pro-social, positive lifestyles to support their recovery, they often instead face social isolation due to disconnections from family and other social networks. Within the community, there are few positive sober activities that individuals with limited language skills feel confident to participate in on their own, particularly if these individuals are affected by social anxiety and similar disorders. Yet, recovery-oriented activities are essential to the development of skills for maintaining pleasure, relief and reward. Often overlooked as keys to successful long-term recovery, clients that do not have access to positive social networks and activities fail to develop self-awareness and self-esteem, face greater challenges navigating systems, and face higher odds of disengagement from services. ***Need for community-based, peer recovery services:*** Traditional community-based peer recovery services can also present unique challenges to individuals with co-occurring disorders. **While there are over 100 AA/NA groups in the City of Boston, only 3 have Spanish language capacity and they are widely disbursed, and hard to access through public transportation.** Though 12-step/AA literature clearly supports the individual's right to take prescribed medication for psychiatric or other medical problems, prevailing attitudes within some AA/NA groups can be intolerant of this choice, with individuals unprepared to address concerns that members may have about their use of medication and commitment to recovery. A lack of peer-based support around medication adherence can be highly detrimental, as the individual in early recovery abandons substance use and at the same time develops an often complex and intensive medication regimen. As a grassroots organization, the participation and engagement of program graduates and current clients has been part of Casa Esperanza's culture for three decades, and today is led by the agency's Community Advisory Board (CAB). CasaCAB participants consistently cite a need for both peer-based supports to sustain their own recovery process, and the re-establishment of connections to their families. The importance of immediate and extended family ties—*familismo*—is vital to Latinos. Reconnecting with family helps clients repair damage caused by addiction while also expanding understanding of recovery within Latino culture. In focus groups with CasaCAB members, and current clients of Casa's Men's Program and the Latinas y Niños Center in 2013, consumers expressed the need for expanded peer-driven services, consumer guided programs, support groups, and mentoring and coaching opportunities, and identified the following needs: (1) *Need for Family Education and Support/Recovery Coaching;* (2) *Need for Peer-Led Services/Support Groups;* and (3) *Need for Community Advisory Board/Pro-Social Community Events.*

A4: Current Involvement in Primary Care/Health Home Services

Casa Esperanza has developed an extensive network of primary care providers, detoxification programs, and piloted service enhancements to help clients with both SMI and addiction disorders access primary care services. In 1996, Casa affiliated with Boston Health Care for the Homeless to provide basic on-site services, rather than have clients travel to BHCH clinics. Since then, services have continued as part of other treatment expansions including: **Tu Bienestar:** This 5-year SAMHSA/CSAT grant provides: HIV, Hepatitis A, B, C, and STI testing, outpatient mental health counseling; HIV case management; psycho-educational groups for HIV+ clients, and clients at risk of HIV; and HIV prevention outreach. Case management includes access to medical care and prescription services, support for treatment compliance, enrollment in Massachusetts HIV Drug Assistance Program, access to dental care and other services.

Ryan White HIV/AIDS Act: From 2000-2011, Casa provided case management through the Ryan White Treatment Act-Part A Multicultural AIDS Initiative (MAI) to 140 HIV+ Latino men in Boston ages 18-50 diagnosed with a substance use disorder. Services included case management services integrated with substance abuse treatment (counseling, peer supports, relapse prevention groups) and linkages to primary care and health related support services.

Psychiatric Services: In 2012, Casa expanded its relationship with Boston Health Care for the Homeless, adding on-site psychiatric services, including a consulting psychiatrist and psychiatric nurse practitioner, to support medication review and participate in Casa's Multi-Disciplinary Treatment Team (MDT). Implementing Psychiatric services and MDT provides an optimal model for implementing deeper comprehensive care coordination across the entire agency.

SECTION B—PROPOSED EVIDENCE-BASED PRACTICES

B.2.1 Purpose, Goals, Outcomes and Objectives:

Overall Project Purpose: By (1) adapting the University of Wisconsin A-CHESS application for smartphones for bilingual Latinos and including a medication adherence component in addition to existing features such as a panic button for 24-7 access to healthy networks (e.g., emergency health care, case manager, peer specialist); (2) training both clients with co-occurring disorders who completed Casa Esperanza residential treatment and Casa staff in the use of the A-CHESS smartphone app; (3) providing smartphones to treatment completers; (4) having available both 1 FTE case manager and 1 FTE peer specialist to respond to smartphone requests from graduated clients; and (5) conducting ongoing technical assistance and local evaluation activities (by the BU-CARS team, experienced with technology and adapting interventions to Latino substance abusers) all program components will be implemented with fidelity. The proposed effort will: (1) reduce risk of relapse, (2) increase medication adherence, (3) improve mental well-being, (4) improve social connectedness, and (5) independent living post treatment graduation. Below the specific purpose, outcomes and objectives for each project activity are described.

Addiction Comprehensive Health Enhancement Support System (A-CHESS)

Adaption of the A-CHESS application Purpose: By Dr. Muroff the Principal Investigator (experienced with implementing behavioral health technology) and Dr. Lopez (experienced with adapting behavioral health interventions to Latina/os) directing and overseeing the adaptation of the A-CHESS application by University of Wisconsin (WI) staff to be user-friendly to a Latino bi-lingual population, and include a component that promotes medication adherence; the A-CHESS technology capacity to respond to the needs of the target population will be improved. (Outcome: An adapted A-CHESS application for smartphones responding to the needs of Latinos with co-morbid substance use and mental health disorders.)

Objective 1. By Jan. 30, 2014, the A-CHESS application will have been adapted and tested on a group of 10 Casa Esperanza clients.

Training on the A-CHESS application and provision of smartphones: By Dr. Muroff and Dr. Lopez providing initial and ongoing training and support to clients who complete residential treatment at Casa Esperanza and Casa Esperanza staff on the adapted A-CHESS smartphone application these groups will be able to use this tool effectively after clients transfer to independent living. (Outcomes: All clients in the proposed effort and all Casa staff either directly involved in client services or who provide IT support will have increased knowledge about A-CHESS and will be active users of this technology.)

Objective 1. By September 29, 2014, 40 clients having completed residential treatment, Casa Esperanza Deputy director, Case Manager, Peer-specialist and IT staff will be trained in A-CHESS technology (By the end of Y03, 120 clients will have completed training.)

Objective 2. By September 29, 2014, 40 clients who successfully completed Casa Esperanza residential treatment will receive a smartphone with the A-CHESS application adapted for Latinos and with a component which promotes medication adherence. (By Y03 120 clients will have received this technology.)

Objective 3. By September 29, 2014, 40 clients who have moved to independent living will be requested to test the A-CHESS application and re-contact case-managers, peer specialist to promote use of technology.

Intensive Case Management (ICM)

Case-management services Purpose: 1 FTE case manager (20% paid for by Casa Esperanza) will provide intensive outpatient case management services to all clients in this project effort. In addition to providing case management support at discharge from residential treatment, the case manager will be available through the smartphone to respond to immediate requests from clients using the smartphone technology throughout this project time. (Outcomes: Reduced risk of relapse, increased medication adherence, improved physical and mental well-being.)

Objective 1. By September 29, 2014, all 40 clients will: (1) have been receiving ICM services prior to leaving Casa Esperanza; (2) have worked with the case manager, under the supervision of either Dr. Muroff or Dr. Lopez on setting up the smartphones in a manner which identifies their unique health services network; and, (3) have received information about the role the case manager will have in responding to smartphone requests by clients in recovery.

Peer-to-Peer Recovery Support

Peer-specialist Purpose: 1 FTE peer specialist will provide Peer-to-Peer Recovery Support to all clients in this project effort and will in combination with the case-manager be available 24-7 to respond to immediate request from clients using the smartphone technology throughout this project period and will collect 6 month and 12 month follow-up data on A-CHESS clients. (Outcomes: Reduced risk of relapse, increased social-connectedness.)

Objective 1. By September 29, 2014, all 40 clients will have: (1) worked with the peer-specialist, under the supervision of Dr. Muroff or Dr. Lopez, on setting up the smartphones in manner which identifies their unique recovery social network; and, (2) have received information about the role the peer-specialist will have in responding to smartphone requests by clients in recovery.

Local evaluation of the EBP Purpose: The local evaluation team (under the supervision of Dr. Muroff and Dr. Lundgren) will use a formative evaluation model, provide ongoing supervision, training, and technical assistance to Casa Esperanza staff, collect comparison group data (n = 20 in Y01, n = 60 by Y03) and have ongoing weekly contact with Casa Esperanza staff. These efforts are aimed to increase the likelihood that the A-CHESS application will be implemented with fidelity with Latinos with co-morbid AOD and MHD, thereby promoting sustainability and replication of this effort, and promoting GPRA adherence to be 100% at base-line and a minimum of 80% at 6 and 12 month follow-up, as in other SAMHSA efforts. (Outcomes: Increased likelihood of A-CHESS implementation with fidelity, increased likelihood of sustainability and replicability, increased likelihood of 100% GPRA baseline and 80% follow-up rates, identification if the effort reached its objectives and outcomes.)

Objective 1: By November 30, 2013 all outcome and process evaluation instruments will have been completed as a joint effort between Casa Esperanza Staff, CasaCAB members and BU CARS evaluation team.

Objective 2. By December 1, 2013, the case manager will start collecting client level baseline data (at the time of discharge from residential treatment). By December 1, 2013, CARS data coordinator and research assistant will start collecting process evaluation data. By May 1, 2013 Peer-specialist and trained CARS interviewer will start collecting follow-up data.

Objective 3: By the end of Y01, and continuously for the next two years, the local evaluation team will provide Casa Esperanza with results from all evaluation activities and jointly disseminate findings from the evaluation to a national audience.

Objective 4. By September 29, 2017, the local evaluation team will identify if the proposed program was effective at reaching its objectives and outcomes.

B.2. Proposed Evidence-Based Practices: The Addiction-Comprehensive Health Enhancement Support System (A-CHESS), a smartphone application (app) is designed to be compatible with two models of how people can change their behaviors: the self-determination theory (Larimer, et al. 1999) and a model developed by Witkiewitz and Marlatt (2004) that describes stages preceding relapse and stage appropriate change methods to prevent relapse. A-CHESS encompasses a wide range of components, as described in the following sections.

Setup: Upon the participant receiving a smartphone equipped with A-CHESS, the app will be set-up with participant demographics; goals and care plan; current medications; high-risk locations; phone numbers of supportive others, reasons they fear relapse; healthy events of interest; and poignant memories from previous substance use. Each week, A-CHESS conducts a "check-in" by displaying a brief survey on the phone's screen. This survey serves to obtain data on recent alcohol and other drug use, status on five protective factors and five risk factors taken from the Brief Alcohol Monitor (BAM) (Marlatt and George 1984), and desire to return to treatment. A-CHESS uses the check-in information for triage and feedback. The Case Manager receives a summary report of the check-in data whenever they wish, on the day before a scheduled appointment, when the participant skips a day of medication and/or reports a relapse.

Triage and Feedback: Triage and feedback are intended to derail the relapse process by providing people with just-in-time, tailored information about recovery coping skills (Kreuter and Wray, 2003; Strecher et al., 1994). Using data collected during setup and check-in, A-CHESS provides optional links to relevant A-CHESS resources. For participants who experience problems managing BAM protective or risk factors, A-CHESS reminds them of skills to use. It offers relaxation exercises, connections to online peer support, and links to a healthy-event newsletter; it can start a diversionary activity, and contact a counselor.

Social Support: Social support is essential in the management of any chronic disease and also is an integral part of A-CHESS. The goal is to cultivate a support network to help the participant develop positive addictions, substitute indulgences, and find support during a relapse (Stalcup et al., 2006; Walton et al., 2003). A-CHESS provides social support through several means:

- *Discussion groups.* Participants can exchange emotional support and information with others assigned to their A-CHESS support network via online bulletin board or text message (Alemi et al. 1996; Ouimette et al. 2001, 2003). Guidelines for appropriate use of discussion groups are stressed in training. Discussions are monitored to identify and act on inappropriate usage.

- *Ask an expert.* Participants who request information and advice receive a response within 24 hours (weekdays) from addiction experts. As with discussion groups, responses of general interest are rendered anonymous and provided for all to view.
- *Personal stories* (written and video interviews) by participants and families address strategies to overcome barriers to addiction management.
- *Social software* allows users to share pictures, comments, recommendations, etc., with other A-CHESS users in their support team.

Information Services: A-CHESS uses check-in data to provide competence-building resources on a just-in-time basis or at a time of the participant's choosing (e.g., when the participant experiences warning signals of relapse, needs to increase lifestyle balance, or requires stimulus control techniques to curb cravings). These resources include the following:

- *Instant Library:* Full-length articles may be hard to read on smartphones; A-CHESS provides audio summaries of key articles and chapters and manuals on addiction management.
- *Medication:* A medication section provides information about addiction pharmacotherapies, ways to reduce side effects, and other barriers to adherence.
- *Questions & Answers* offers brief answers to hundreds of questions about addiction, with links to other A-CHESS services that provide more detail.
- *Web Links* allow participants to access recommended addiction-related Web sites, with information on the sites' strengths and weaknesses.

Additional Tools: Several additional tools are available with the A-CHESS system to support recovery. These include the following:

- *Panic Button* provides emergency triage when a user feels risk of relapse is high. When the user taps the Panic Button, a text message asking for immediate support from friends is automatically generated and the user is presented with tailored coping options and diversionary activities. Smartphones will also be programmed to include immediate access to existing Boston programs providing services to suicidal clients and emergency physical health care.
- *Easing Distress* includes relaxation exercises.
- *Location Tracking* uses the smartphone's GPS to initiate rescue when the participant approaches a high-risk location. GPS also locates and provides maps to nearby meetings (e.g., of Alcoholics Anonymous or Narcotics Anonymous) and treatment providers in emergency situations.
- *Reminders* provide timely text and audio reminders, significant milestones, reasons for quitting, and inspirational messages.
- *Healthy Event Newsletter* populates the participant's calendar with recent news and healthy activities that he or she expressed interest in during setup and links the person to peers who share similar interests (Meyers et al. 2003).
- *Case Management* calls are scheduled with the participant's case manager (Godley et al. 2002; McLellan et al., 1992, 1999). Before each call, A-CHESS (with the participant's permission) e-mails the case manager time graphs of the person's check-in data. The case manager reviews these reports, provides tailored education, and creates tailored links to relevant A-CHESS material. The participant and care manager can e-mail or text each other via a pre-programmed button. Additionally, the case manager receives notification if the patient's check-in data exceed a threshold on key indicators or if the patient indicates that he or she needs to resume treatment (Sullivan et al. 1992).

Effectiveness with population of focus: The Center for Health Enhancement Systems Studies at the University of Wisconsin-Madison is completing a randomized controlled trial (RCT) of A-CHESS as it is described above. This NIAAA funded A-CHESS grant (Developing and Testing a Computer-Based Alcohol Use Disorder Recovery System, R01 AA017192-01A1) builds on the premise that a theory-based smartphone relapse prevention system providing consistent, 24-hour access, in-home (or anywhere) can improve relapse prevention for people being discharged from residential care (Gustafson, Shaw, et al. 2011). A-CHESS completed recruitment of 350 study participants at two sites. A-CHESS differs from previous CHESS programs in three important ways: 1) A-CHESS is designed to broaden access to populations who have limited ability to read by providing audio access to material; 2) Instead of functioning on a PC, it uses a smartphone to greatly expand its availability anytime and anywhere; and 3) A-CHESS will “push” much of its content to the users, based on information gained about current needs. A-CHESS offers the following services to its users: a) timely monitoring to assess risk of relapse; b) reminders/alerts that both encourage adherence to therapeutic goals, and push addiction-related educational materials/tools tailored to individual needs; c) communication with peer support groups and addiction experts; d) audio delivery to help those with literacy challenges; e) access to selected Internet resources; and f) one-touch communication with a care manager and other support people. Patients randomly assigned to A-CHESS are trained to use it during the two weeks prior to their anticipated discharge from residential care.

The A-CHESS employs these concepts in a four-factor model to prevent relapse: 1) Develop/maintain autonomous motivation to prevent relapse (autonomy supportiveness); 2) Develop and practice skills and provide resources to cope with pressures to relapse, e.g. cravings, withdrawal symptoms, high risk situations (competence); 3) Provide access to social support to persevere (relatedness); and 4) Monitor relapse prevention motivation and behaviors to help identify the need for, and to tailor, A-CHESS supports. (Gustafson, Boyle, et al., 2011).

The results from the current RCT testing A-CHESS among patients with alcohol and/or drug dependence and mental health problems leaving residential treatment over a 12-month period demonstrates excellent success. A-CHESS participants reported significantly fewer days of risky drinking ($M=1.386$) than control participants ($M=2.752$) [$t(287.686)=2.97, p=.003; d=.23$] over the 12-month period and follow-up. Fewer risky drinking days were reported by A-CHESS participants than control-group patients across the three time points, as well; they were statistically significant at 4 ($p = .020; d = .25$) and 12 months ($p = .032; d = .24$) but not 8 months ($p = .096; d = .18$) (iMedicalApps, 2012). A-CHESS participants also reported greater rates of total abstinence at 4, 8, and 12 month compared to the control group; differences were significant at 8 months ($p = .038$) and 12 months ($p = .014$) but not at 4 months ($p = .132$) (Gustafson, McTavish, Atwood, Chih, Shah, Boyle, & Levy, 2012). Across 4, 8 and 12 month testing periods, those who responded to all surveys (70%) in the A-CHESS arm reported 57% fewer heavy drinking days ($p=.003; d=.39$) and 30% improvement in complete abstinence ($p=.007; OR 1.74$). Similar significance levels were found in intent to treat (Gustafson et al., 2012). Participants used this smartphone app frequently for continuous support, resources and information (McTavish, Chih, Shah, & Gustafson, 2012). During the first week following residential treatment, 94% of the participants used A-CHESS; 80% continued to use it at week 16. Among those with comorbid mental health issues, 90% used A-CHESS through the fourth week and about 74% at week 16 (McTavish et al., 2012). At the time that this study stopped paying for mobile service (8 months), 60% of subjects were using A-CHESS at least weekly; compared to 92% in month one. This drop off is less than any other CHESS application studied

to date (Gustafson et al., 2012). Findings suggest that A-CHESS is practical, affordable, and effective method of continuing care. A key **limitation** of this Smartphone implementation among patients leaving residential treatment is that the clients are predominantly white (80%) and English-speaking. ***The proposed project will extend the use of the A-CHESS app by modifying it for dissemination to Spanish-speaking Latinos and those with dual diagnosis (AOD/MHD).***

A SAMHSA CSAT grant supported the use of A-CHESS with high risk and high need adult non-violent offenders with an AOD problem in Drug Court (N=120). Six-month follow-up interviews indicate that risky behaviors have decreased, except for unprotected sexual contact. One person (3%) continued to inject illegal drugs. Initial data analysis suggests that the highest users show the lowest overall percentages of positive drug screens. Participants reported using their phones 10-15 times a day, using the “Discussion Board” 3-4 times a day. Similar to the RCT, a key limitation is that these clients are predominantly white and English-speaking.

Finally, CHESS has been tested with numerous diseases and has been found to improve quality of life and reduce costs for HIV patients (Gustafson, Hawkins, Boberg, Pingree, Serlin, Graziano, & Chan 1999); improve smoking cessation for adults (Japuntich, et al. 2006) and teens (Patten et al. 2006); and improve childhood asthma control and breast cancer patients’ quality of life (Gustafson, Hawkins, Pingree, et al. 2001).

Evidence that Selected Practice is appropriate for outcomes: The A-CHESS studies cited above collected data, analyzed and reported on outcomes similar to those in the proposed project. These outcomes included adherence to treatment plans, development of peer support and community, improved relationships, sharing of resources, abstinence, and improved life functioning.

Modifications and Adaptations: Two modifications to the A-CHESS model will be made: (1) The A-CHESS program will be translated into Spanish and adjusted to reflect cultural needs and preferences; (2) a medication adherence component will be added. Medication adherence survey component will send reminders and assess whether clients take their medication. This component will also have the ability to notify case managers if clients fail to respond to the survey or indicate that they have not taken their medication.

Choice of this Evidence-Based Practice: A-CHESS has been developed and tested as a theory-based four factor model relapse prevention system for those being discharged from residential treatment (Gustafson, Shaw et al., 2011). A technology-based evidence-based practice is especially fitting for Latino with dual diagnosis in recovery due to the needs outlined above as well as level of use and comfort with technology and problems with medication adherence.

Mobile Use among Latinos. Mobile phones are very common in the Latino community, reaching over 90% in 2010 (Livingston, 2011; Rocha, 2010). The rate of smartphone use among Latinos is also very high (44-45%) and exceeds that of whites (about 30%) (Smith, 2011). Additionally, Latinos utilize mobile data services at a higher rate than other ethnic groups (The Nielsen Company, 2010). Furthermore, Latino mobile users send and receive more texts and make 40% more phone calls per day than what is the average across mobile users in the US. (Neilsen, 2010). Latinos tend to use their mobile devices to access the internet. Approximately 40% of Latinos access the internet using mobile devices compared to 17% of whites (Smith, 2011). Another finding showed that Latinos and African Americans are at least 6 times more likely than whites to access the internet solely through their mobile phones (Rocha, 2010). Approximately, 18% of African-Americans and 16% of English-speaking Latinos are mobile phone-only wireless Internet users, compared to 10% of whites (Smith, 2010). Latinos also send and

receive emails through their mobile phones at a greater rate (47%) compared to whites (30%) (Smith, 2010). Latinos are also more likely to post photos and videos using their mobile phones than whites (Smith, 2010). Furthermore, Latinos download 20% of all applications that are downloaded (Purcell, Entner & Henderson, 2010). Mobile health interventions, seem to be well-received among Latinos. Latinos report being interested in receiving educational text messages about health (e.g., HIV, STIs, etc.) (Leite, Buresh et al., 2013; Persons et al., 2011). Latinos and Blacks are more likely to report that texts with reminders for taking medications or attending medical appointments are helpful (Persons et al., 2011). Also, Latinos tend to view mobile phones as a way to connect people and build and maintain relationships (Leonardi et al., 2003).

Medication adherence: Having co-occurring substance abuse and mental illness often leads to poor functioning and increased risk of relapse. Substance abuse is associated with greater risk of medication non-adherence (Svarstad et al., 2001). Non-adherence is especially problematic for patients with concomitant psychiatric and substance abuse/dependence disorders (i.e., dually diagnosed; Zeidonis and Trudeau, 1997; from Swanson et al., 1999). Medication non-compliance may result in “more hospitalizations, longer hospital stays, higher hospital costs” (Svarstad et al., 2001). “Nonadherence to treatment among psychiatric patients can lead to a number of adverse consequences, ranging from poor clinical outcomes” (Eisenthal et al., 1978) to violent behavior, especially among dually diagnosed patients (Liberman et al., 1994) (from Swanson et al., 1999). The proposed adapted smartphone A-CHESS app focused on relapse prevention appears to be an excellent fit to address the needs of Latinos with dual diagnoses leaving residential treatment.

Intensive Case Management- The A-CHESS app will facilitate clients connection to their case manager who will be trained in intensive case management (ICM) which extends beyond connecting clients to community resources (Mueser et al., 1998) and includes various interventions (e.g., crisis intervention, counseling, psychoeducation, consultation with family). ***Evidence that Selected Practice is appropriate for outcomes.*** ICM has been proven extremely effective at increasing access to services, particularly for vulnerable groups including homeless populations (Vanderplasschen et al., 2007). ICM also has been associated with significant increases in substance abuse treatment initiation, engagement, and retention as well as elevated abstinence rates (Morgenstern et al., 2006; 2009). Injection drug users have been shown to: have difficulty accessing health information and preventive healthcare (Freeman, Williams, & Saunders, 1999); compared to other drug users, be less likely to seek preventive healthcare (Chitwood et al., 2001); and frequently confront widespread availability of drugs in their neighborhood (Bourgois, 1995). ICM has been shown to significantly reduce inpatient service use, promote continuity of outpatient care, and increase housing stability for homeless individuals and persons with AOD and MHDs (Stein & Test, 1980; Bond et al., 1991; Lehman, 1998; Mueser et al., 1998). For individuals in HIV care, ICM has been found to be associated with fewer unmet needs and higher use of HIV medications (Katz et al., 2001).

Peer-to-Peer Recovery Support: The A-CHESS app will provide participants with the capability and opportunity to easily connect with their peer-specialist. Peer-to-peer specialists have been shown to assist with recovery and relapse prevention through social support. The trained peer specialist will assist with recovery plans, independent living and increase social connectedness.

Evidence that Selected Practice is appropriate for outcomes. In accordance with the President’s New Freedom Commission on Mental Health Report mental health consumers should play a lead role in designing and implementing the transformation to a recovery-based mental health system. Peer-based service models are growing rapidly in the mental health service arena, particularly for

clients with co-occurring psychiatric and substance use disorders (Mowbray, Moxley, Jasper & Howell, 1997; Davidson, Harding & Spaniol, 2005). Including a peer model for this population offers a rich source of experience-based guidance on individual/family recovery management, and emphasizes a long-term recovery process that serves the need of the particular individual and their family (White, 2009). The Discussion groups and Panic Button incorporate peers as recovery support roles. Smartphone technology provides participants with opportunities to develop new social and interpersonal networks and to become full members of an inclusive and accepting community (Hardiman & Segal, 2003; Hardiman, 2004; Yanos et al., 2001). These alternative communities or reference groups provide new ways of thinking about one's experience and practical ways to handle problems (Mead et al., 2001; Campbell, 2005).

How the proposed practice will address the following issues in the population(s) of focus: demographics, language and literacy, sexual identity, and disability: Casa Esperanza has participated in five previous SAMHSA grants, and has experience in implementing and modifying EBPs to achieve linguistic/cultural salience and maintain fidelity to chosen practices. The proposed Smartphone app will be modified in collaboration with Casa's staff, as well as the Consumer Advisory Board (CAB), who represent the age, race, ethnicity, culture, language, sexual orientation, disability, literacy, religious, and gender experiences of the clients served.

A-CHESS will address the diversity of Casa clients in the following ways:

Race, Ethnicity, Culture and Language—97% of clients served at Casa Esperanza are of Latino descent. About 40% speak have limited or no English skills. This project will modify the A-CHESS program so that it is in Spanish and culturally appropriate for Latino participants. All Casa direct-care staff are fully bilingual (speak, read, and write in both languages) and provide services in the language the client is most comfortable. **Gender**—Participants and staff will be both men and women. All staff will be highly attuned to how gender interacts with culture and encourage clients to explore their personal belief systems to define their own expectations of gender roles. **Religion**—Religious organizations are an important source of support for clients in recovery. Relevant nearby resources may be incorporated into Location Tracking, Healthy Events and calendar scheduling. Case managers and peer-to-peer specialists will be highly attuned to the dual role that religion can play both in self-blaming as well as a cultural strength that supports spiritual renewal and a community that can reinforce positive gains and provide resiliency. **Age**—The majority of Casa clients (41.1%) range from 35-44 years old; 10.5% are from 18-24; 33.8% are from 25-34; and, 14.6% are over the age of 44. Since staff are often younger, the program is structured to address cultural norms regarding respect for elders.

Geography—68% of Casa clients come from Boston, others come from Springfield, Lawrence, Lowell, and Worcester. If a client desires to return to their community of origin, Casa works with local affiliates to establish a network of support services and secure appropriate housing.

Frequently clients do not want to return to the community they lived in previously in an effort to “start fresh,” in which case Casa staff provide referrals to help them integrate into new communities, including housing support, outpatient substance abuse and mental health treatment, and other support groups. The Smartphone app will assist in their acquaintance with relevant resources and events in their new neighborhoods and enhance their “connectedness” during this transition, especially as many live socially isolated lives. **Socioeconomic status**—All clients at Casa Esperanza are low-income. One in five Casa staff members including the CasaCAB Facilitator, are alumnus of Casa’s residential treatment programs and have faced and overcome many of the same socio-economic and treatment challenges faced by current clients. The Smartphone App will provide 24/7 access between the participants and the Casa network.

Literacy—About 65% of Casa clients lack a high-school diploma. Although A-CHESS users must be functionally literate, the language used in the development of the A-CHESS technology is at an 8th grade reading level, which matches the lowest educational level for participants in the Casa Esperanza programs. For clients who struggle with literacy, the A-CHESS application includes audio access to materials and audio delivery to help for those with literacy challenges.

Sexual Orientation—3% of clients served reported to be Gay/Lesbian, 5% reported being bisexual and less than 1% reported being Transgender. The Smartphone app will connect clients to a range of self-help groups and linkages to additional supports designed to meet the unique needs of each individual. Casa Esperanza has relationships with a number of organizations that serve the LGBT community (e.g., Fenway Community Health Center, AIDS Action, La Red) and will connect clients with additional supports to meet all their needs.

Disability—100% of A-Chess clients have a mental health condition and many have other disabilities. Casa Esperanza facilities are ADA compliant and easily accessible. The diverse approaches used in the A-CHESS Smartphone app present a variety of ways to engage individuals with disabilities, and promote work with affiliates including Mass. Rehabilitation Commission, DEAF, Inc. and Mass. Commission for People with Disabilities.

LOGIC MODEL

Inputs	Activities	Outputs	Outcomes
<ul style="list-style-type: none"> * SAHMSA Grant \$280,000 * 40 smartphones annually. *U of Wisconsin programming staff. *Consortium fee funding tech application/tech maintenance. * .15 FTE PI experienced in implementing behavioral health technology. * .10 FTE CulturalCompetence Expert(Experienced in adapting behavioral health interventions for Latinos) *. 03 FTE eval. expert. *.25 FTE GPRA data entry staff. * .25 FTE comparison grp interviewer. *.15 FTE Data analyst. 	<p>1. Adaptation of A-CHESS application</p> <ul style="list-style-type: none"> *BU PD and CO-I supervision. * Programming staff adapts A-CHESS for Latina/os and include a medication adherence component. <p>2. Training</p> <ul style="list-style-type: none"> *Train 40 Latino treatment completers and Casa staff annually on A-CHESS. <p>3. Case management</p> <ul style="list-style-type: none"> *Conduct discharge plan integrating use of A-CHESS. *Conduct Baseline assessment. * Assist with ICM, housing assistance and after-care services *Provide ongoing ICM through A-CHESS. <p>4. Peer-to-Peer support</p> <ul style="list-style-type: none"> *Inform clients of peer-specialist social support role and how to access peer-specialist and peers with A-CHESS. 	<p>1.Tech Adaption <u>By 1/30/2014:</u></p> <ul style="list-style-type: none"> *Adaption complete and pilot tested with 10 Casa Esperanza clients. <p>2. Training <u>By 09/29/2014</u></p> <ul style="list-style-type: none"> *40 clients annually and Casa Esperanza staff will have completed A-CHESS training. <p>3. Case management <u>By 9/29/2014:</u></p> <ul style="list-style-type: none"> * 40 clients will have completed treatment, received after-care plan including use of A-CHESS as a recovery tool, been placed in housing, been placed in aftercare services and re-contacted ICM through A-CHESS in 1st wk of independent living. <p>4. Peer-to-Peer support <u>By 9/29/2014</u></p> <ul style="list-style-type: none"> *40 clients will be linked to and accessed by peer-specialist through A-CHESS in wk 1 of independent living 	<p>1. Tech Adaptation</p> <ul style="list-style-type: none"> *New smartphone technology completed; specifically adapted to reduce relapse and increase medication adherence among Latinos with dual diagnosis AOD/MHD. <p>2. Training</p> <ul style="list-style-type: none"> *All A-CHESS clients and Casa Esperanza staff will have increased knowledge and be active users of A-CHESS technology. <p>3. Case management</p> <ul style="list-style-type: none"> *Reduced risk of relapse, Increased adherence to medications, increased mental and physical wellbeing, improved housing stability. <p>4. Peer-to-peer support</p> <ul style="list-style-type: none"> *Reduced risk of relapse, increased adherence to medications, increased social connectedness, increased capacity of independent living.

LOGIC MODEL			
Inputs	Activities	Outputs	Outcomes
* .10 FTE Deputy Dir. * .03 FTE Exec. Dir. * 1 FTE case manager *1 FTE peer specialist. * .10 IT staff	* Available 24/7 to respond to A-CHESS requests. *Conduct 6 month and 12 month follow-ups 5. Local Evaluation *Conduct all GPRA related activities. *Conduct all process and outcome evaluation activities. *Enter all GPRA data.	5. Local Evaluation <u>By 9/29/2014 For Y01:</u> *process eval will identify if project implemented as intended. * GPRA activities will identify if project reached target pop. *outcome evaluation identifies if program is effective.	5. Local Evaluation *Increased likelihood of A-CHESS implementation with fidelity, increased likelihood of sustainability and replicability, increased likelihood of 100% GPRA baseline and 80% follow-up rates, identification if the effort reached its objectives and outcomes.

SECTION C—PROPOSED IMPLEMENTATION APPROACH

Support SAMHSA's goals: This A-CHESS smartphone project supports SAMHSA's goal to expand service capacity for individuals with substance use disorders by providing bilingual/bicultural "real time" technology-based 24/7 recovery support for Latino individuals who not only struggle with substance use disorders, but also are homeless and have co-occurring serious mental illness and chronic disease. Despite co-occurring AOD and MHD being considered chronic diseases characterized by chronic relapses, ongoing support for relapse prevention is rare due to the already financially overstrained and overburdened alcohol and drug treatment infrastructure. Research shows that sustained participation in ongoing care for alcohol and drug abuse is associated with improved outcomes (McLellan, McKay, Forman, Cacciola & Kempp, 2005; Simpson, 2004; McKay, 2005). Technology such as the A-CHESS app provides 24/7 ongoing support that may be tailored to the needs of the individual. The mobile technology A-CHESS "was designed to radically improve addiction treatment and continuing care by offering emotional and instrumental support anywhere at any time" (Gustafson et al., 2001; McTavish et al., 2012, p.295). Prior to leaving residential treatment, the client with the support of staff at Casa Esperanza will develop an individual plan that includes a wide-range of AOD/MHD recovery-oriented goals including those that meet their immediate, practical, familial, social, spiritual and personal needs. Personalized plans may include actions steps to secure income, increase employment and/or education, secure safe affordable housing, identify relapse triggers, engage in pro-social activities, and identify peer and family supports to help reduce relapse and recidivism. These goals, networks, etc. will be programmed into the A-CHESS app. The previously described aspects of the app and peer supports will facilitate bilingual peer recovery, encourage ongoing discussion to build a culture of recovery, expand social networks and address issues of stigma and discrimination, relapse triggers, and medication adherence; increase client capacity for self-management; identify and reduce risky behaviors; maintain recovery; and support overall health and wellbeing.

Experience Using Health Technology for Treating Substance Using Populations:

Current Capacity in HIT: Casa Esperanza is currently in the final stages of acquiring and testing their new EHR/HIT system, which will be fully operational by the summer of 2013 and will have been in use for more than six months when the A-CHESS application is implemented. This system is Meaningful Use certified and provides HIPAA compliant operations, data access, and security. Implementation of this system will increase productivity through elimination of

duplicate data entry and paper-based documentation inefficiencies; increase accuracy and timeliness of data with real-time reporting; and simplify and fully integrate documentation, reporting, scheduling, and billing. It includes a participant portal with secure, Agency managed access to specific data points to empower participants to manage their care. The A-CHESS smartphone app will be used by the Peer specialist and case manager when providing outreach and conducting follow-up interviews or other services off campus to allow for ease of documentation wherever and whenever they provide services.

Factors influencing the expansion/enhancement of HIT: The proposed project aims to fund staff positions specifically for participant orientation to the phone's technology, tracking of phone distribution, data entry of participant demographics, data tracking of phone usage, and corresponding data regarding program compliance, medication adherence, outpatient treatment compliance (for some), and progress in maintaining sobriety.

Provider training and competence factors: Staff training in using A-CHESS will consist of a 3 month staff orientation period prior to participants receiving phones. Funding for this project will include staff trainings from the BU Principal Investigator and cultural expert and tailoring the program to meet Casa Esperanza's participant needs and data collection.

Relationship factors between provider and participants: Previous evaluations of the A-CHESS application showed that it was a positive tool to establish and strengthen treatment relationships with participants. The immediate benefit was the enhanced ability to coach, monitor and check in with referrals and provide a more intensive level of support as they departed treatment, and help connect them with peer leaders who could mentor them into the outpatient programs, as well.

Many of the participants who graduate may remain in contact with current participants and staff. As occurred in the Drug Court A-CHESS project, an "Alumni Group" may form and gain prestige and respect from other members. These alumni maintained relationships with staff for after care, and attended group therapy voluntarily to support their recovery and stay in touch with peers in the program. The A-CHESS program is a means for graduated participants to remain connected in a structured format that allowed for daily check-ins and sharing of success stories.

Technical factors: Casa Esperanza was an early adopter of technology with agency-wide email available in the 1990s and electronic client's record since 2001. All staff use computers to conduct business including email, documentation, reporting, efax, and time sheets. The IT consultant has provided ongoing IT consulting to Casa Esperanza for more than 7 years.

Technology consultants are brought in for security and application design and support as needed. The proposed budget includes funding for BU staff providing technical consultation, on-site care plan management, phone usage monitoring, and the agency IT consultants for technical support.

Financial factors: Casa Esperanza has approximately 45 employees who use computer technology. It has systems and funds in place to routinely maintain and update agency software and hardware. To support the use of smartphones and A-CHESS beyond the 3 year period, Casa Esperanza will use data collected during the 3-year period on impact and effectiveness to secure funding from private or state funding sources. Casa Esperanza, has received numerous awards for its quality treatment services provided to Latino populations and has several ongoing State contracts. The 3-year period will allow efficiencies to be identified that can be used to reduce the amount of funding required for on-going operation of A-CHESS.

Obtaining Consent: Consent for participation in the project will adhere to State law and 42 CFR part 2 as applicable. **Attachment 3** includes a copy of a *draft* consent. No disclosures will be made without obtaining prior authorization from the participant. Such authorizations will be securely maintained with the other records for each client and be accessible only to those staff

with a “need to know” such information as determined by the functions required by their project role. All participants will be offered a copy of Casa Esperanza Notice of Privacy practices which explains how we will protect and disclose information as well as rights to access. The PI at BU School of Social Work will also apply for and secure Institutional Review Board approval.

How project components will be embedded in existing service delivery system: This project will be embedded within a current existing service delivery program of Casa Esperanza program. As noted, 97% of clients served by Casa Esperanza are Latino. Casa’s programs are designed and implemented by a team largely comprised of Latinos from the various cultures served by its programs, with the input of peer members of the CasaCAB. Casa direct care staff are all fully bilingual (Spanish/English). As a result, the programs incorporate the many nuanced beliefs, norms and values within Latino cultures into the entire continuum of care, from outreach to engagement to service delivery and aftercare planning. The professional team is mostly comprised of Latinos from the various cultures served by its programs. Beyond a notion of cultural competency, peer supports also help to create an environment that embodies a philosophy of “personalismo”—a sense that staff across all disciplines work to assure every client feels welcome, known, understood, and most importantly, safe. A-CHESS presents a unique opportunity to maintain this “personalismo” 24/7 connection and ongoing care during a critical transition, as clients leave residential treatment, and engage in of the work of relapse prevention. **Affiliates**-To address the unique needs of each client, Casa has developed a network of affiliates that provide individually tailored services while incorporating nuanced beliefs, norms and values reflected in Latino cultures in outreach, engagement, and service delivery. They include: **Boston Public Health Commission**-provides multiple links to residential treatment for women with children, including outpatient substance abuse treatment; **Boston Emergency Services Team**-multilingual/ multicultural psychiatric information, referrals, evaluation and crisis intervention; Crisis Stabilization Unit; psychopharmacology; and Urgent Care Centers; **Latin American Health Institute**-bilingual home-based Family Stabilization; housing search and advocacy; assisted living program for HIV+ individuals; **Arbour Hospital, Latino Partial Hospitalization Program**-crisis intervention, psychiatric evaluation, extended evaluations, psychopharmacological treatment, neuropsychological assessments, psychological testing and partial hospitalization (five hours a day) for intense psychological treatment; and **La Alianza Hispana**-provides a wide range of culturally and linguistically appropriate services to the Latino community focused on family support services, elder care, workforce development and ESL/ABE education.

Potential barriers and how we will overcome them: One challenge is the fragility of technology in terms of the number of damaged or broken phones. Participants are encouraged to use the smartphones as their primary phones and carry them at all times. Many participants work in labor intensive jobs and either chose to keep phones “safe” by leaving them at home during work hours, or accidentally damaged them on the job. This project budget includes an allowance for “replacement phones” to reflect the nearly 50% of participants who may need to have their phones repaired or replaced. (This figure is based on the replacement rate in the A-CHESS trial.) Participants will be successful completers of residential treatment and therefore will have at least a short period of sobriety and some level of engagement with their peer group. Thus, the risk for selling or “losing” their phones may be less problematic. The safeguard of waiting to assign participants a phone until their final month of residential treatment allows them to have sufficient time to be trained and engage with the technology. If a participant needs to return to residential care and is prohibited from using cell phones while they are placed, a policy of returning phones

for the duration of residential care will be developed and managed on a case by case basis to ensure that resources can be distributed to the most active project participants.

Continuation plan after funding period ends: As the current A-CHESS pilot project comes to a close in September 2016, participants may choose to purchase the A-CHESS program and have it installed on their personal phones to continue the service. As the project develops, efforts will be made to negotiate affordable contracts with wireless network providers using project outcome data. It is hoped that policy makers and community stakeholders will be able to share in documented success of the project and that in the future a combination of participant contributions and reduced fee contracts for wireless service using the A-CHESS app can be maintained.

Screening, Assessment and Tracking of Individuals with Co-occurring disorders:

Casa Esperanza has an extensive history providing integrated substance abuse and mental health treatment in a residential setting. Annually, approximately 300 clients enter the Casa program. Of these 95% are Latinos and 95-99% have diagnosed co-occurring mental health and substance use disorders. The primary screening and assessment tool used by trained mental health clinicians and licensed substance abuse counselors is LOCUS. All staff are trained in Motivational Interviewing techniques. In-patient clients receive comprehensive set of services; including individual level CBT therapy with a licensed mental health clinician, IDDT, TREM (trauma-support groups adapted for Latinos and for men), Psycho-educational groups, social support groups, relapse prevention techniques, access to psychiatrist for medication and medication adherence and access through physical health services through an ongoing contract with Boston Health Care for the Homeless. While clients receive in-patient services, these services are tracked through an MIS data base and electronic encounter forms. Changes in client status over time while in program are tracked through the same system. Extensive discharge plans are created when clients complete the program. All clients discharged from residential treatment are referred to outpatient services. The discharge plan will include A-CHESS smartphone technology, in the future. Currently, all discharged clients are tracked through a 30, 60 and 90 day follow-up in-person or phone interview. Hence, the smartphone technology will significantly improve tracking capacity.

Timeline

Milestones	Year One 2013-2014				Year Two 2014-2015				Year Three 2015-2016			
	Oct	Jan	Apr	July	Oct	Jan	Apr	July	Oct	Jan	Apr	July
Activities (<i>Staff responsible</i>)												
Project Preparation												
Obtain BU IRB approval (PI)												
Train Casa staff (PI, CE, TIA, DD)												
Translate A-CHESS app into Spanish and refine medication adherence component. (PI, CE, DD)												
Program the translated version and medication adherence component. Refine screening tools and assessments instruments. (PI, AT)												
Project Management												
Integrate technology within Casa (ED, DD, IT, CM, PS)												

Milestones	Year One 2013-2014				Year Two 2014-2015				Year Three 2015-2016			
Activities (<i>Staff responsible</i>)	Oct	Jan	Apr	July	Oct	Jan	Apr	July	Oct	Jan	Apr	July
Train clients in use of A-CHESS & smartphones (<i>DD, CM, PI, TIA</i>)												
Conduct review meetings(<i>DD, PI, CM</i>)												
Incorporate evaluation findings into service delivery (<i>ED, DD, PI, PS, DTC, CM</i>)												
Program Operations												
Supervise program staff and evaluation staff weekly (<i>DD, PI</i>)												
Begin screening and enrolling participants (<i>DD, CM, PI</i>)												
Provide program services to referred clients (<i>DD, PS</i>)												
Participants complete weekly survey feedback on A-CHESS (<i>PP</i>)												
Program staff access A-CHESS data to tailor supports to participants needs (<i>DD, PS, CM</i>)												
Evaluation and Data Management												
Hire Trainer/Interviewer Assistants (<i>PI</i>)												
Set up data collection systems (<i>PI, DD, DC, TIA</i>)												
Gather Data (<i>TIA, IT, PS</i>)												
Conduct Interview stakeholders (<i>TIA, CM, PS</i>)												
Analysis and Reporting												
Analyze data (<i>DC, EE, PI</i>)												
Report GPRA data to CSAT (<i>EE, DC</i>)												
Collaboration/ Community Involvement												
Participate in quarterly Community Advisory Board (CAB) Meetings (<i>ED, DD, PI, TIA</i>)												
Participate in SAMHSA grantee meetings (<i>DD, PI</i>)												

Staff Key: Casa Esperanza Executive Director (*ED*), Deputy Director (*DD*), BU Principal Investigator (*PI*), Cultural Expert (*CE*), Program Participant (*PP*), Trainer and Interviewer Assistants (*TIA*), IT Consultant (*IT*), Peer Specialist (*PS*), Casemanager (*CM*), A-CHESS team (*AT*), Evaluation Expert (*EE*), Data Coordinator/Analyst (*DC*).

Recruiting and retaining identified population. The expansion and/or enhancement of electronic tools will be used to reach the specified population of focus: A-CHESS will be translated into Spanish to make it more appropriate for use by Spanish-speaking Latino clients. All treatment completers of Casa Esperanza's residential program will be screened and those who meet criteria will be invited to participate. Those who consent will be randomized to receive A-CHESS or standard post-residential treatment completion services provided by Casa. Similar to the current clinical trial of A-CHESS with those with alcohol dependence leaving residential treatment, the inclusion criteria are: 18 years or older, and agreement to provide the name and contact information for two individuals who would know how to reach the participant over

the next year. Individuals would be excluded if they have a history of being suicidal, significant cognitive, developmental, and/or visual problems that would impair their capacity to understand A-CHESS materials. The smartphone and A-CHESS program will be introduced and demonstrated, and consent and confidentiality forms will be completed. Participants would receive their phone and start their training 2 weeks prior to their discharge from the residential treatment, in order to acclimate to the program, and demonstrate 7 to 14 days of program compliance as a measure of their ability to participate meaningfully in the treatment program. This two week period aids in screening out participants who may sell the phone for quick money rather than make the commitment to participate in the relapse prevention intervention. (This procedure has been shown to be helpful in the A-CHESS clinical and Drug Court trials).

Implementation of the proposed health information technology service(s) or practice(s):

Within a month prior to completing residential treatment, participants will be screened and offered a smartphone programmed with the A-CHESS software. The proposed program includes a full-time Peer Specialist. Peer support has been found to be valuable in addiction recovery: for individuals at high risk (O'Day, 2009); and in reducing relapse rates (Boisvert, 2008). The Peer Specialist will work with other program staff in supporting participants in use of A-CHESS including: (1) monitoring program chat, responding with useful information and links, and flagging for other Casa Esperanza staff those participants who may be struggling with abstinence; (2) run a A-CHESS group to orient new participants, help participants connect, share useful links, and troubleshoot technology issues; (3) post daily topics for group discussion and moderate group online discussion; and (4) work with the Data coordinator to track phone use, panic button use and weekly self-ratings.

All Casa Esperanza program staff will be trained in the use of smartphones and A-CHESS software. A-CHESS participants will be trained by their case manager or Peer Specialist. Program staff will meet with participants 3 times per week prior to discharge. During these check-ins, program staff will review smartphone usage and address any related problems or issues. Program staff and the Peer Specialist will monitor each participant's use of the smartphone features throughout the week and perform additional check-ins via the smartphones as needed. Each week, A-CHESS conducts a "check in" by displaying a brief survey on the phone's screen. This survey obtains data on recent AOD use, status on five protective factors and five risk factors taken from the Brief Alcohol Monitor (BAM) (Marlatt and George 1984). Program staff will receive a summary report of the check-in data whenever they wish, on the day before a scheduled appointment, and whenever a participant reports a relapse.

Boston University Center for Addictions Research and Services will join the A-CHESS Consortium, work with programmers to tailor the A-CHESS program to each participant's needs, and share outcome data to contribute to the consortium's research goals. In addition, BU CARS and Casa will use the data to evaluate the impact on service delivery by correlating A-CHESS usage with referrals made/accessed, relapse data, and satisfaction ratings. These finding will be used to improve program operations in meeting participants' recovery needs. Participants using the A-CHESS app will fill out a weekly, self-reporting survey. For comparison, interviewer assistants will work with participants in the comparison group to fill out similar surveys. The survey will collect data to measure specific outcomes such as: (1) Abstinence and relapse; (2) Medication adherence; (3) Attendance at outpatient treatment groups, AA/NA; (4) Mood and well-being; (4) Involvement with activities; and (5) A-CHESS features that are used frequently.

Leveraging of messaging systems and personal health records to effectively engage participants in their own care: Clinical staff who provide outpatient treatment (for residential treatment completers), case management and coordination will utilize smartphones to monitor participant engagement and progress. Weekly clinical supervision meetings keep all staff current on participants' treatment needs. All clinicians will also have administrative access to weekly ratings by clients of their risk status and current needs. Staff monitor and respond to postings and self-ratings using the smartphone messaging system, and engage in problem solving using the applications communication features or by scheduling a face-to-face appointment for follow-up. As clients choose to input their own self-ratings using the application, they become involved in monitoring their own progress and fluctuations in risk as graphed for them by the application over time. Participants will access the weekly symptom report check list on the A-CHESS program to report risk level and indicate any relapses. These reports will be reviewed daily by the Peer Specialist. The Peer Specialist will review and respond to participants as clinically appropriate and help them to stay on track with their outpatient treatment plan, relapse prevention plans and safety plans. The messaging and self-report features of the A-CHESS application are designed to engage users in treatment and provide support to peers. The Peer Specialist will monitor participants' use of these features on a daily basis and flag areas of concern for the Deputy Director and other staff as indicated. s):

Social Support: Social support is an integral part of A-CHESS. The goal is to cultivate an active, engaged support network to help the participant develop positive addictions, substitute indulgences, and find support when facing cravings and impulses to relapse. A-CHESS provides social support through several means such as discussion groups, "Ask an expert" function, personal stories, and social software).

Information Services: A-CHESS uses check-in data to provide competence-building resources on a just-in-time basis or at a time of the participant's choosing. These resources include an instant library, a medication section, questions and answers, and web links.

- *Additional Tools* include a Panic Button, Easing distress, GPS Location Tracking, Reminders and Messages, Healthy Event Newsletter, and Case management calls. The proposed study will add a medication adherence component.

How the use of home-based monitoring tools will improve health outcomes: One of the strongest support features of the smartphone technology is participants' ability to access staff, peers, emergency health services 24/7 if they are in crisis or at risk for relapse. Participants use the "panic button" feature of the application to indicate they either had relapsed or were at imminent risk to relapse, are actively suicidal, etc. Participants from previous A-CHESS studies (i.e., Drug Court) unanimously report that immediate access to support from both staff and peers reinforces efforts they make to regain control, and has a much more powerful effect than waiting to schedule an appointment or attending an AA/NA group without peers who "know their story".

Other participating organizations: In addition to the applicant organization, Boston University School of Social Work, this project will involve close collaboration with Casa Esperanza and the Center for Health Enhancement Systems Studies at the University of Wisconsin, Madison. Boston University will conduct a process and outcome evaluation of the project. BUSSW has been involved in evaluating 5 Casa Esperanza projects and they are familiar with the participant population and the program model. The team at University of WI will be involved in adaptation, implementation and use of the A-CHESS smartphone software, providing tech support and usage data. Included in Attachment 1 are letters of commitment from both of the project partners.

Specific roles and responsibilities. Casa Esperanza has a strong track record of developing and sustaining creative programs that meet local needs (Casa Esperanza's capacity is described in Section D). Casa Esperanza staff (e.g., Director, Deputy Director, Case Manager, Peer Specialist) and participating treatment completers will be trained to use the A-CHESS program so they can function as active users. Case managers will conduct a discharge plan with the treatment completers integrating the use of A-CHESS, conduct the discharge assessment, assist with ICM housing assistance and aftercare services, and provide 24/7 ongoing support during the period that clients are using A-CHESS. The Peer Specialist will also be available for 24/7 ongoing support, to facilitate peer contact among A-CHESS participants, and conduct 6 month and 12 month follow-up assessments. The Center for Health Enhancement Systems Studies at the University of Wisconsin (WI) developed the A-CHESS Smartphone application aimed to assist those with AOD and MHD leaving residential treatment maintain their recovery and prevent relapse. The team at University of WI will be involved in the modification, implementation and use of the A-CHESS smartphone software, providing ongoing technology support and usage data. The University of WI personnel are responsible for programming and oversight of the modified components (a Spanish version of A-CHESS and a medication adherence component). The University of WI PI and A-CHESS Project Director will oversee all programming duties and interface with the BU Principal Investigator.

Number to be served: This project aims to serve 40 new, unduplicated participants per year, with a 3 year total of 120 participants to be given access to smartphones with A-CHESS. Participants will be Latino/a, 65% (n=26 per year) male and 35% (n=14 per year) female. With the proposed project, each new participant will be able to join an existing and growing network of A-CHESS users. Given the existing social recovery culture that has developed to date, no obstacles in recruiting participants to the project are anticipated. **Number and types of services to be provided:** Casa Esperanza will provide technology-enhanced support services provided via smartphones using the A-CHESS application. The A-CHESS application offers four service type groups (triage and feedback, social support, information and additional tools) encompassing 15 individual tools (including the new medication adherence component) that will be available to the participants in English and now a new version in Spanish. The number of services provided will be dependent on the level of use of each participant. Under this proposal, the 40 participants will have access to the 15 tools for an average of 52 weeks each. **Anticipated outcomes:** The proposed effort will: (1) reduce risk of AOD/MHD related relapse, (2) increase medication adherence, (3) improve mental well-being, (4) improve social connectedness, and (5) improve independent living post-treatment.

Per Unit Cost. The cost per unit based on current actual costs and projected costs over the life of the project is \$5,600 per client. This includes access to a Smartphone and A-CHESS application and additional services provided by Casa Esperanza for residential treatment completers as well as access to a range of other employment, educational, family stabilization, housing assistance and medical services at no additional cost. This unit cost is well within the reasonable range for the outpatient treatment modality as established by SAMHSA in this RFA.

SECTION D—STAFF & ORGANIZATIONAL EXPERIENCE

D1. Capability & Experience of Applicant Organization

The Center for Addictions Research and Services (CARS) at Boston University School of Social Work (BUSSW) has for the last 12 years collaborated with Massachusetts' community-based addiction treatment organizations, including Casa Esperanza, targeting Latina/os with AOD

/MHD, providing technical assistance, consultation, conducting demonstration efforts and evaluations in order to promote effective implementation and adaptation of evidence-based AOD/MHD practices in the Latino community. This collaboration has resulted in more than 15 million dollars in addiction treatment, co-morbid mental health and addiction treatment, care-coordination and HIV prevention services being provided to vulnerable populations in need of treatment and continuity of care. The organization has significant experience training community-based treatment providers in the use of technology. For example, Dr. Muroff, the Principal Investigator has implemented web-based CBT technology and developed web-based training for substance abuse counselors and Dr. Lundgren has assisted CBOs in developing new encounter MIS and health records systems and use of internet based data collection tools. The long standing, collaborative relationship that BU CARS has with Casa and other community-based organizations targeting highly vulnerable populations, including Latina/os with co-morbid mental health conditions, is recognized. CARS and Casa Esperanza residential and outpatient programs collaboration was the finalist for the National Community-Campus Partnerships for Health Award in 2006 and in 2010 CARS received an award for their community service delivered by the Massachusetts Bureau of Substance Abuse Services. Our evaluation model is based on a formative, participatory model. We are highly active in disseminating results together with all stakeholders. In addition, CARS faculty experts provide CBOs' training in implementation of EBPs, locating and follow-up techniques, and the importance of gathering quality data.

Capability & Experience of Collaborating Organizations

Casa Esperanza The community-based treatment organization Casa Esperanza was created in 1984 as a grassroots response to the substance abuse crisis in the Latino community, serving populations facing barriers to care, including cultural/linguistic minorities, homeless individuals, individuals with co-occurring mental illness, individuals with chronic disease (Hepatitis C, HIV, asthma, diabetes), and formerly incarcerated and court involved individuals. Since 1984, Casa has served more than 3,200 individuals and families. Licensed by the State, Casa opened the first bilingual residential substance abuse treatment program for Latinos in Massachusetts in 1987. In 1991, Casa responded to the need for affordable housing by beginning its Supportive Housing program, which has grown to 37 units. In 1995, Casa addressed a key barrier to Latinas seeking treatment by opening the first bilingual facility in the state to support single women as well as women with children. Casa received its first SAMHSA grant in 2004, a five-year *Treatment for Homeless* grant, which established its Relapse Prevention and Outpatient Services program. This began an ongoing eight-year collaborative partnership with Boston University CARS to provide evaluation and training that has remained critical to the agency's subsequent grant-funded initiatives. These include the five-year *Tu Bienestar* SAMHSA/CSAT grant (2008) adding on-site HIV, HCV, STI and TB counseling, testing services, and basic primary care services, provided by Boston Health Care for the Homeless; the three-year SAMHSA/CSAT *Pathways to Recovery* grant (2009) to improve detection, screening and treatment of co-occurring mental health disorders, and the basis for Casa's integrated behavioral health treatment approach; and the three-year SAMHSA/CSAT *Transcend* grant (2010), to provide reintegration services for adults re-entering the community from incarceration. In 2012, Casa received its Mental Health Clinic license, as well as a three-year accreditation for integrated outpatient substance abuse/behavioral health services from CARF International.

University of Wisconsin. The University of WI A-CHESS team is the original developer of the A-CHESS technology. They have received significant funding from federal funders and foundations to develop A-CHESS, used to promote healthy behaviors for a range of client populations.

This team has extensive experience implementing A-CHESS among drug users to reduce relapse, working with community-based providers and other university teams including an RCT and project that promotes A-CHESS use among drug court participants. The A-CHESS team is highly interested in and supportive of adapting A-CHESS to a Latino dual diagnosis population.

D2. Project Staff & Key Personnel

BUSSW/CARS:

Principal Investigator/Project Director (.15 FTE) Jordana Muroff. Dr. Muroff will oversee all aspects of the proposed project together with one project research assistant. She will oversee and supervise the adaptation of the A-CHESS smartphone app, train clients and Casa staff in A-CHESS technology. She will oversee the programming of A-CHESS which needs to be individualized for each client. She will oversee the writing of all annual and final reports and the dissemination of findings from the evaluation. Dr. Muroff will spend a maximum of .05% of her total effort overseeing the evaluation component. *Demonstrated experience and experience serving the target population:* The Principal Investigator Dr. Muroff has extensive experience testing and implementing new technology with co-morbid populations. She has experience with research trials utilizing technology to deliver mental health interventions. For example, she has developed and testing (a) web-based self-help CBT intervention for hoarding (Muroff et al., 2010); (b) video-conferencing CBT to treat adult OCD (Himle, Fischer, Muroff et al., 2006); (c) webcam-based CBT for hoarding (Muroff et al., 2009); (d) web-course to improve substance abuse counselors' knowledge and skills in applying CBT (Larson et al, in press). Each of these studies modifies empirically supported treatments utilizing technology to make them more easily implemented and disseminated. Dr. Muroff, who is Spanish-English bilingual, has also been providing ongoing CBT training to Casa Esperanza staff for more than 5 years.

The Cultural Competence Expert (.10-.15 FTE) will assure that the initial adaption of the A-CHESS technology responds to the needs of Latina/o drug users and that the Spanish version is correctly adapted. This expert will dedicate time to all three years of the project, responding to both Casa staff and client concerns regarding any culturally related concerns about the use of A-CHESS, communicate with University of WI if any other cultural adaptations are needed.

Demonstrated experience and experience serving the target population: Dr. Luz López, is an Associate Professor at BUSSW. She has had senior roles on 5 prior CSAT and CSAP funded efforts, training community-based addiction treatment organizations and HIV outreach organizations in provide culturally relevant trauma interventions, relapse prevention and HIV prevention education, in residential and outpatient settings and has provided training across Massachusetts and Puerto Rico on effective methods for working with Latinos and other ethnically diverse groups with AOD/MHD at high risk for HIV/AIDS. In addition, Dr. López has coordinated clinical interventions and the implementation of the program evaluation activities for The Boston Consortium of Services for Families in Recovery (BCSFR), a CSAT TCE-HIV Expansion Grant.

Evaluation Expert Lena Lundgren, PhD is Director of the Center for Addictions Research and Services and Professor at BUSSW. Dr. Lundgren will aid Dr. Muroff with the local evaluation by providing advice and consulting on questionnaire development, data-collection and the data analysis phase. *Demonstrated experience and experience serving the target population:* Dr. Lundgren has directed numerous evaluation efforts of substance abuse services aimed at reducing drug use, HIV risk and trauma. She has also directed a number of studies on the linkages between drug treatment and HIV among Latino drug users. Further, she has participated in a number of SAMHSA cross-site evaluations and disseminated results both from such cross-site

evaluations and local evaluations. Dr. Lundgren has been the evaluator on more than 10 outcome evaluations funded by SAMHSA, HRSA and CDC. She has been the guest-editor for *Evaluation and Program Planning* 3 times. One of these special issues focuses on Addiction treatment and HIV outreach for Latino with AOD/MHD (Lundgren et al., 1998; Lundgren et al., 2008; 2011).

Data & Technology Coordinator, .15 FTE will support the collection and reporting of evaluation data; help PI coordinate set-up of smartphones for participants and staff; coordinate with A-CHESS and Dr. Muroff and Lopez to troubleshoot software issues; design new modules as needed; and coordinate smartphone set-up.

Casa Esperanza:

Program Director (.03 FTE). Emily Stewart will ensure the project progresses in a timely manner, that all program components are delivered to the target population, and address any agency barriers to implementation. She will oversee integration of the project into Agency-wide systems. *Demonstrated experience*: has led the integration of culturally competent EBPs into all agency program areas, increasing residential treatment completion rates by more than 30%. Ms. Stewart has more than 15 years of experience with populations facing barriers to accessing services, including at-risk women and girls, disadvantaged youth, homeless individuals and families, and individuals living with mental health and substance use disorders. She holds a Bachelor's Degree in Communications from the University of Massachusetts.

Deputy Director (.06 FTE) Diliana De Jesús, oversees all four clinical programs at Casa Esperanza. She serves as the Compliance Officer for the Agency and works with the Management Team to ensure compliance related to programmatic, financial, outcomes reporting, and facilities requirements. *Demonstrated Experience*: She is bilingual/bicultural with more than 5 years' experience in social service management and more than 8 years' experience in the Latino community working with at-risk youth, recent immigrants; individuals living with mental health and substance use disorders; implementing evidence-based practice; and working with issues related to incarceration and reintegration. She has both first-hand personal and professional experience of individuals with addiction and mental health disorders. She is fully bilingual Spanish/English. She holds a Bachelor's Degree in Communications from BU.

Peer specialist (1 FTE) Eric Lozada, CADAC. The peer specialist will meet with the clients at discharge from residential treatment, discuss his role in being available through the A-CHESS technology and also discuss how other staff at Casa Esperanza will assume this role when he is not working. Further the peer specialist will (1) monitor program chats, responding with use information and links, and flagging for Casa Esperanza staff participants who may be struggling with abstinence and/or medication adherence; (2) run A-CHESS groups for treatment completers to orient new participants, help participants connect, share useful links, and troubleshoot technology issues; (3) post daily topics for group discussion and moderate group online discussion; (4) work with the data coordinator to track phone use, panic button use and weekly self-ratings. *Demonstrated experience*: Mr. Lozada has more than 15 years of personal recovery experience and brings extensive peer-based and professional experience working with the population of focus, including his own personal experiences with addiction, reentry, and ultimately recovery through support of both Casa and others in the community. His experiences mirror many of the challenges faced by the population of focus, and his experience in overcoming these obstacles will be vital to the success and active use of the A-CHESS technology.

Case Manager (1FTE) Wanda Rodriguez. The case manager trained in Intensive Case Management techniques, sets up the discharge and after-care plans for all 120 clients who completed treatment. Also, this individual will participate in setting up the A-CHESS phones for each client so that each A-CHESS app is personalized to best represent the participant's care needs. She will be available together with other staff at Casa Esperanza for any A-CHESS contacts and specifically provide "on the spot" case-management services. *Demonstrated Experience and experience serving the population:* Ms. Rodriguez, is a bilingual bicultural case manager who has worked in a range of in-patient and out-patient treatment settings with Latino with AOD, populations at risk of HIV and individuals with co-occurring substance abuse and mental health disorders.

Night-time and weekend outpatient support. Casa Esperanza has existing support staff which the clients can connect to through their Smartphones. These staff are already part of the staffing at Casa Esperanza, hence their effort is not included in the budget.

IT Support. In Source Services, IT consultant to Casa Esperanza will set up smartphones for participants including establishing the phone number and loading software, and will work with the Data and Technology Coordinator to troubleshoot and respond to problems.

University of Wisconsin, Madison

Director, sub-contract university of WI. .03 FTE Kimberly Johnson, MSEd, MBA, is the primary point of contact for the University of WI /A-CHESS on this project and will be responsible for all project activities. Ms. Johnson is currently the Co-Deputy Director for NIATx as well as the Director of the ACTION Campaign. She has worked in the field of substance abuse prevention and treatment since 1989. She has managed treatment programs and served as the single state authority for the state of Maine from 2000-2007, where she worked to increase available treatment capacity by 35 percent during that time.

Senior Programmer, Director of Software Architecture (1.68 calendar mos (Yr 1)

0.24 calendar mos (Yr 2 & 3). Mr. Berhe, Lead programmer of CHESS since its inception in 1989 and supervises the Software Architecture Team to maintain system coordination and compatibility. For this project, Mr. Berhe code the Spanish translation and write code for the medication management tool in Year 1. In Years 2 and 3 he will work with BU/CARS and Casa Esperanza project staff to address any concerns or adjustments that need to be made.

E. PERFORMANCE ASSESSMENT AND DATA

Data Collection and Performance Measurement

Casa Esperanza and the Boston University Center for Addictions Research and Services (CARS) have a documented ability to collect and report on required GPRA performance measures. We have collaborated on five prior SAMHSA-funded initiatives for which we have successfully been able to conduct 100% of baseline and over 80% follow-up interviews with the target population. BU CARS, in collaboration with community-based providers, has successfully published papers using GPRA data in peer-reviewed, refereed journals and has presented at APHA and SAMHSA conferences (Amodeo et al, 2008; Beltrame et al., 2010; Delgado et al., 2008; López et al., 2008; Lundgren et al., 2009; Zerden, López, & Lundgren, 2010; Merighi et al., 2011).

Plans for data collection, management, analysis and reporting. *Data Collection:* Case managers will conduct the GPRA baseline in-person interviews for the proposed A-CHESS project during the discharge from residential treatment phase. Through discharge and aftercare

planning as well as the smartphone training period, project staff will establish strong connections with clients in order to track and locate them to complete follow-up interviews at the appropriate time. All clients will complete the GPRA interview at baseline and follow-up even if they no longer receive Casa Esperanza services. The Casa Peer-specialist will conduct follow-up interviews with the 40 clients a year receiving the smartphone and A-CHESS services. The BU interviewer/research assistant will conduct the follow-up interviews with 20 individuals per year who are part of the comparison group. The BU team will be responsible for managing all GPRA data by keeping logs, entering data, and analyzing data for SAMHSA reports and publications.

Management and Analysis of Pre-/Post-Intervention, Discharge, and Follow-up Data: The BU CARS team will enter, manage, and analyze all GPRA data, including baseline (discharge) interview data, and 6 month and 12 month follow-up data (see sections below for specific analytic procedures to be used). Similar processes will be followed in tracking A-CHESS data collection and reporting. *Reporting:* All GPRA performance data will be submitted to SAMHSA well within expected time frames (similar to prior projects). Biannual, annual, and final reports to CSAT will be developed collaboratively by program staff and the evaluation team. Further, evaluators will provide weekly reports to Casa Esperanza detailing: (1) # of GPRA baseline and follow-up interviews conducted; (2) progress on baseline and follow-up goals; (3) how the baseline population fits the proposed target population; (4) due dates for conducting follow-up interviews; and (5) summary reports on discharges from residential treatment. Weekly Excel worksheets will include: #of participants needing follow-up; minimum # of interviews required for an 80% follow-up rate; and lists of clients, by unique identifier, with windows opening for follow-up in the next 30 days. Dr. Lena Lundgren, who has extensive experience conducting outcome and process evaluations of efforts aimed at reducing relapse, improving mental health and reducing recidivism among Latino substance users, will oversee GPRA tracking and follow-up training provided by BU CARS staff to all Casa staff. Interviewer training materials are already developed in English and Spanish and based on GPRA protocols. Dr. Jordana Muroff who has substantial experience conducting mental health intervention trials that also include technology will spend 5% of her time overseeing all evaluation components.

Additional measures. For the outcome evaluation, selected measures will be taken from the Addiction Severity Index (ASI), the Coping Self-Efficacy Scale, the MOS Social Support Survey (Sherbourne & Stewart, 1991), and the Reinforcement Inventory (Chesney et al., 2006; McLellan et al., 1992; NIDA, 1993; Sarafino & Graham, 2006). These items, asked in-person at baseline (discharge from residential treatment) and 6 and 12-month follow-up, will focus on mental health symptoms, risk behaviors, perceived family and social support, self-efficacy, and behavior complexity. These will be administered through Survey Monkey/ Qualtrics by the interviewer.

Data driven quality improvement process by which sub-population disparities in access/use/outcomes will be tracked. On a six-month basis, the evaluators will provide Casa Esperanza staff with results from analyses of all GPRA and local outcome evaluation data using cross-tabulations, ANOVA and regression methods. Analyses will focus on differences in outcomes, differences in accessing services and use of services available through Casa for specific sub-groups, and results will be utilized to ensure effectiveness of initiative and minimization of disparities. Specific sub-group comparisons will focus on conducting comparison by gender, Latino/a ethnicity, birthplace, history of co-morbid mental health disorder, age, education, employment, poverty and homelessness. These data driven sub-group comparisons will address the following questions with respect to access/use of services: whether there are significant sub-group differences in access and use of consumer driven aftercare-

support services, educational/vocational training, health/mental health care services, specific alcohol/drug recovery groups, use of addiction treatment (if there is a relapse), and family support services. With respect to outcomes, sub-group comparisons will identify if there are significant differences between sub-groups in reductions in rates of risk behaviors including HIV risky behaviors, enhanced capacity to manage stress and negative sense of self, improved mental wellbeing, stable housing, employment, reduced risk of relapse, reduced recidivism and increased social connectedness from baseline to six month and 12-month follow-up.

Local Performance Assessment

The local performance assessment will include an outcome and a process evaluation component. Performance assessment. The outcome performance assessment and related activities have four goals: 1) provide data to help staff manage the project through continuous monitoring of outcome goals; 2) assure quality improvement through weekly updates on baseline and follow-up goals, and bi- monthly reports on disparities in access/use/outcomes; (3) assess the effectiveness of the intervention; and (4) disseminate the outcome assessment results to a national audience.

A-CHESS Performance assessment: BU will collaborate with Casa Esperanza and the University of WI staff to receive de-identified data (with unique identifiers) on the usage by clients of the specific functions of the A-CHESS smartphone app. BU will provide aggregated reports of key A-CHESS smartphone findings to the University of WI team. Key performance data will be assessed as follows: 1) Clients will receive their smartphones with A-CHESS after the first 60-day startup period of the grant (baseline). Utilization of A-CHESS functions and aftercare services (individual and group counseling, family therapy and benefits counseling) are expected to show increases during the last 60 days (and/or periodically) of the first grant year compared with baseline during the 60-day startup. 2) Trends in utilization of A-CHESS smartphone functions over time will be measured through analysis of A-CHESS utilization data. 3) User surveys of both clients and staff regarding effectiveness, convenience and staff time efficiency, conducted through the A-CHESS smartphone app, will be reported by BU CARS through data sharing agreements between Casa Esperanza and the University of WI team.

Outcome Assessment A randomized design with matched comparison groups will be used to assess if those participants who use A-CHESS result in the following outcomes: reduced risk behaviors including reduced relapse, and increased social connectedness, increased medication adherence, reduced HIV risky behaviors, enhanced capacity to manage stress and negative sense of self, improved mental wellbeing, stable housing, employment. Two sets of comparisons will be conducted to assess if the proposed A-CHESS interventions was effective: (1) a comparison of six month and 12 month outcomes between participants using the A-CHESS smartphone app compared to a random sample of 60 “graduates” of the Casa Esperanza residential drug treatment services (multivariable modeling will control for Latino ethnicity, birthplace, substance use history, age, criminal justice history.)

Outcome data: The five main sources of data for this performance assessment will be:

- Baseline assessment forms, using the CSAT GPRA Client Outcome Measures for Discretionary Programs (at baseline, six and 12 months follow-up) as well as the additional measures included in the performance assessment;
- At least annual interviews of participants and Casa Esperanza staff;
- Six-month and 12-month follow-up interviews of clients following discharge from residential treatment, using a modified GPRA, to assess sustained usage of the A-CHESS smartphone app and maintenance of positive program outcomes;

- A-CHESS app utilization data, by client (de-identified), according to specific functions;
- A-CHESS app surveys of clients and staff regarding what it has been like to use the smartphones and the difference they may have made in recovery;

In order to maximize the collection of baseline (discharge from residential treatment) and 6 and 12 month follow-up measures, the evaluation team will work with Casa Esperanza staff and the Community Advisory Board (CAB) members and program staff to integrate the outcome variables into existing baseline and follow-up forms. The GPRA measures will be integrated into baseline and follow-ups using Survey Monkey/Qualtrics in order to ensure that the information is collected as required by SAMHSA. *Data collection:* The peer-specialist and the BU interviewer will conduct all GPRA interviews which include the local evaluation measures at baseline, and 6 and 12 month follow-ups. Dr. Lundgren and the CARS data coordinator will provide training on interviewing, follow-up and locating techniques to new staff. The BU interviewer assistant will conduct baseline and follow-up interviews with the comparison group sample. *Data analysis:* Cross-tabulations, correlations, t-tests, ANOVA and regression statistical methods will be used to assess whether participation in A-CHESS resulted in significantly improved outcomes compared to the comparison group and to assess whether individual factors such as birthplace, gender, and sexual identity were differently associated with outcomes.

Process evaluation: The evaluation team will use an ongoing formative monitoring process evaluation model utilized in all prior efforts. This section describes the process evaluation questions, data collection and analytic methods and methods used to disseminate results to all stakeholders. Questions to be responded to in the process evaluation include: How closely did the program implementation match the proposed plan? What types of changes were made to the originally proposed plan? What led to the changes in the original plan? What effect did the changes have on the planned intervention and performance assessment?

Data collection: Responding to Process Evaluation questions: First, bi-annually, interviews will be conducted with all case managers, peer-to-peer recovery counselors, CasaCAB members, and other Casa Program staff. These interviews will focus on identifying how these groups describe the services they provide (counselors, CasaCAB and other staff) through this grant, changes made to the interventions, barriers/facilitating factors in implementing EBPs, and reasons for making these changes. A battery of mixed methods questions will be used in a national study exploring staff barriers to implementing EBPs (Amodeo et al., 2011; Lundgren et al., 2011; 2012) and how clients describe and perceive the services received. Second, bi-annual focus groups will be conducted with clients in active recovery residing in the community to identify clients' descriptions and definitions of services research. Third, observations of communications between peer-to-peer recovery counselors, CasaCAB members and other staff, as well as between staff and clients, will be conducted by Dr. Muroff and the coordinator.

Satisfaction with the Interventions: On an annual basis, a sample of 10 clients will be recruited to participate in a semi-structured interview to gather client feedback including: 1) aspects of interventions that are most helpful in their recovery; 2) influence of interventions on participants' perceived psychosocial health; 3) challenges to participation and (if appropriate) reasons for inconsistent participation; and 4) recommendations regarding how interventions and/or other supportive services could better meet their needs. Semi-structured interviews will also be conducted with key program staff on an annual basis in order to document the successes and challenges of the proposed interventions. These interviews will be used to document the: 1) strengths of the interventions; 2) challenges of implementing the interventions as recommended

or planned; 3) strategies staff have developed to overcome challenges; 4) perceived changes in accessibility of community-based social and medical services for the target population; and 5) revised goals for the following year. The BU team will conduct all semi-structured interviews.

Analysis process of evaluation data: The BU team will review the initial sample of interviews to develop a codebook. All interviews will be coded and entered into a data management program that helps facilitate the organization and management of qualitative data. Transcripts will be coded and reports generated on each code. The BU team will review these reports and identify common and unique themes that will be summarized and presented to the Casa case managers, peer-support counselors, CasaCAB members and staff as part of their ongoing efforts to improve the proposed interventions. The database will track changes in program feedback over time.

Intervention Fidelity: To document program intervention fidelity, questions will be added to these annual interviews that address fidelity. Checklists will be developed based on key program components. Checklists can also be used at random visits. In the case of programs that incorporate their own evaluation tools, these will be adopted by the evaluators. We also plan to request that supervisors ask similar questions in their staff meetings. This data will be collected by staff and supervisors and BU CARS will conduct the annual interviews. Data will be analyzed and provided to program leadership in an ongoing manner to improve quality assurance.

Dissemination: Powerpoint presentations will be developed with all results from the ongoing process evaluation, the data analysis focusing on disparities in access, service use, and outcomes across subpopulations. Dr. Muroff will bi-annually present these results to Casa staff, CasaCAB members, and the BU team and lead a discussion about what changes need to be implemented to: Maintain the original implementation plan, with fidelity to the extent possible; but, if needed, revise the original implementation plan to addresses disparities in access, use, and outcomes.

F. ELECTRONIC HEALTH RECORD (EHR) TECHNOLOGY

Casa has successfully collected demographic and clinical data related to service delivery for more than 8 years, through its partnership with BU CARS. However, successful implementation of the proposed services will require Casa to make a critical investment in a new electronic health record (EHR) system. To date, acquiring such a system has not been feasible, due to limited funding mechanisms and incentives available for behavioral health providers to procure EHR systems, compared to peers in primary care settings. With impending functional and legislative requirements for electronic health information, Casa has been proactive in identifying a solid timeline for procurement and implementation of a comprehensive system by Fall 2013.

EHR Acquisition Plan. During the past 18 months Casa has completed a comprehensive planning and assessment process to facilitate EHR acquisition. The Management team has consulted with external partners, including Boston Health Care for the Homeless Program, and other behavioral health providers on their experiences in implementation, cost, training and daily use of their EHR systems. The agency has also conducted an internal assessment of its clinical, administrative and billing functions in the context of Health IT and work practice administration. As the result of assessment, five key priorities for all prospective EHR systems were determined:

1. Must be certified to current Meaningful Use Standards, with clear timelines by the developer to maintain and meet additional criteria for Meaningful Use in the future.
2. Must be fully compliant with standards for protected health information meeting or exceeding the requirements under HIPAA and 42 CFR part 2.

3. Must to the extent possible offer seamless workflow that links centralized demographic and billing information with both behavioral health and primary care clinical functions.
4. Must to the extent possible provide inter-operability and connectivity to EHR systems of other key partners and providers, either directly or through other facilitated mechanisms.
5. Must have current and future compatibility with Directed Exchanges, such as the Mass e-Technology Highway (MeHI) initiative of the Commonwealth of Massachusetts, as well as related services, such as health registries, and cross-provider information exchanges.

Timeline: Procurement & Installation A cross-discipline team of staff and management team members has participated in webinars and live demonstrations related to all eligible products meeting these criteria. As a result of these evaluations, Casa selected two EHR systems as finalists for purchase in April 2013. These final candidates have been invited to return and make final proposals to a cross-section of agency staff and management, and to submit final proposals by May 1, 2013. Through a parallel process, the executive team will assess options for short-term financing to assure implementation according to the proposed timeline. With review of proposals and financing completed, the Executive Team will present their final recommendation for approval by the Board of Directors, with the goal of completed short term financing and a signed and executed contract with the selected EHR provider no later than June 1, 2013. Following execution of the signed contract, the selected vendor will begin installation of the EHR system beginning in June 2013. This process will include establishing and integrating the new system into existing billing and IT infrastructure, as well as credentialing and linking into all pertinent local and state-wide data exchanges, including MeHI. Factoring unanticipated delays in implementation, full installation should be completed by July 2013.

Timeline: Staff Training With installation of the EHR system completed, core staff who will be responsible for various clinical and administrative functions will receive intensive training on migration of these duties to the EHR system. Training is included within the scope of service for both finalist EHR providers and will commence in August 2013. Sessions will be provided in small group and with one-on-one support as needed for all administrative, finance and billing personnel, all members of the Multi-Disciplinary treatment team, including program directors, mental health clinicians, treatment coordinators, case managers, contracted providers, tailored to the unique needs of each. Training is estimated to be completed by September 15, 2013.

Timeline: Go-Live Based on completion of installation and training, Casa Esperanza expects to go-live for all clinical and billing functions with the new EHR system, allowing for unexpected delays in implementation, no later than October 1, 2013.

Budget Requirements: The total costs for implementation based on either proposed EHR system will be approximately \$100,000. The agency will utilize short term small business financing to procure the system, while it continues to incorporate and offset these costs within its private foundation proposals and all state and federal government grant applications. This assures that Casa Esperanza will maintain compliance with all regulatory and funding requirements while enhancing its capacity to increase billable revenue through use of automated clinical recordkeeping and claims filing.

Smartphone Technology to Reduce Relapse Among Latinos with Mental Health and Substance Abuse Disorders

Boston University
9/30/2013 to 9/29/2016

Personnel

Principal Investigator. Dr. Jordana Muroff will devote 1.29 person-months academic year and 0.36 person-months summer in Year 1, 1.49 person-months academic year and 0.60 person-months summer in Year 2, 1.39 person-months academic year and 0.60 person-months summer in Year 3. Dr. Muroff will oversee all aspects of the proposed project. She will oversee and supervise the adaptation of the ACHESS Technology, she will train clients and CASA staff in ACHESS technology together with one of the project training assistant. She will oversee the writing of all annual and final reports and the dissemination of findings from the evaluation. Dr. Muroff will spend a maximum of .05% of her total effort overseeing the evaluation component.

Cultural Expert. Dr. Luz Lopez will devote 0.45 person-months academic year and 0.45 person-months summer in Year 1, 0.63 person-months academic year and 0.36 person-months summer in Years 2, and 0.45 person-months academic year and 0.30 person-months summer in Year 3. She will together with Dr. Muroff adapt the ACHESS component to be used by Latinos with substance use and mental health disorders. She will provide training and support to the case-manager and peer-to-peer staff to assure implementation of EBPs in a culturally competent manner. She will participate in dissemination activities.

Evaluation Expert. Dr. Lena Lundgren will devote 0.27 person-months academic year and 0.09 person-months summer in Year 1 and 0.27 person-months academic year and 0.15 person-months summer in Years 2 and 3. She will provide technical advice to the Principal Investigator on all evaluation components, oversee the data coordinator and make certain that all GPRA related.

One data coordinator/analyst Ms. Deborah Chassler will devote 1.20 person-months calendar year in Year 1 and 1.80 person-months calendar year in Years 2 and 3 conducting the qualitative process evaluation and conduct the interviewer training of counselors and case managers. She will also supervise the data entry staff and conduct all analysis of GPRA data and local evaluation data.

Training and Interviewer Assistants Two part-time assistants will be hired. One will code and enter data and conduct six month and 12 month interviewers with comparison group. The other assistant will provide ongoing training together with the PI to clients on use of ACHESS. The training and interviewer assistants will both be paid \$15/hour*15 hours/week*50 weeks/year in Years 2 and 3. The interviewer assistant will be paid that amount for Year 1.

Fringe Benefits

Per Boston University's negotiated agreement with DHHS, a fringe benefits rate of 28.0% is applied to professional staff salaries (2/22/13).

Other Costs

Travel

Local Travel: Funds are requested for local travel to Casa Esperanza (\$200/year).

National Travel: \$1,300 is requested in Years 1-3 for national travel to a SAMHSA conference. This item covers the travel costs to Washington DC for Grantee Meetings. One person will travel to each conference.

Years 1-3: \$224/night for lodging for 4 nights, \$71/day for meals and incidentals for 3 days, assume \$200 flight: \$1300 requested

An additional \$1000 is requested in Year 3 for travel to a third conference.

Publication Costs

\$200 is requested in Year 1, \$206 is requested in Year 2, and \$212 is requested in Year 3 for dissemination of project results at SAMHSA conferences such as posters.

Computer/Electronic Services

\$15,000 is requested in Year 1, \$15,450 is requested in Year 2, and \$15,914 is requested in Year 3 for Smartphones and data plans for 120 users, 6 staff users, as well as replacement phones for those that have been lost or stolen (estimated at 30% based on previous ACHESS studies. An additional \$1,000 is requested in Year 1 for a laptop computer.

Photocopying

\$100 is requested in Year 1, \$103 is requested in Year 2, and \$300 is requested in Year 3 for photocopying project materials.

Subject Payments

\$2,400 is requested in Year 1, \$2,472 is requested in Year 2, and \$2,600 is requested in Year 3 for food vouchers given to subjects after two follow-ups.

Subcontract

University of Wisconsin: \$43,343 is requested in Year 1, \$7,356 is requested in Year 2, and \$7,504 is requested in Year 3 for subcontract work from the University of Wisconsin.

\$10,000 is requested in Years 1-3 for a consortium fee to the University of Wisconsin. BU will pay this separately to University of Wisconsin; it is not included in the subcontract.

CASA Esperanza: \$100,000 is requested in Year 1 and \$120,000 is requested in Years 2 and 3 for subcontract work from CASA Esperanza.

F&A Costs

F&A costs are calculated at 36.3%, as specified by SAMHSA regulation.

Local Evaluation

The local evaluation component is less than 20% of the total budget. Local evaluation costs include 5% of Dr. Muroff's time, 3% of Dr. Lundgren's time, 1 research assistant, and 15% data coordinator time, as well as cost to travel to 1 non-SAMHSA conference, the computer in Y01, and cost for dissemination materials.

SECTION G—LITERATURE CITATIONS

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Sullivan, W.P., Wolk, J.L. & Hartmann, D.J. (1992). Case management in alcohol and drug treatment: Improving client outcomes. *Families in Society*, 73(4), 195-203.

Svarstad, B.L., Shireman, T.I., & Sweeney, J.K. (2001). Using drug claims data to assess the relationship of medication adherence with hospitalization and costs. *Psychiatric Services*, 52(6), 805-811.

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Trepper, T. S., Nelson, T. S., McCollum, E. E., & McAvoy, P. (1997). Improving substance abuse service delivery to Hispanic women through increased cultural competencies: A qualitative study. *Journal of Substance Abuse Treatment*, 14, 225-234.

Walton, M.A., Blow, F.C., Bingham, C.R., & Chermack, S.T. (2003). Individual and social/environmental predictors of alcohol and drug use 2 years following substance abuse treatment. *Addictive Behaviors*, 28, 627-642.

Vega, W., Rodriguez, M., & Gruskin, E. (2009). Health disparities in the Latino population. *Epidemiologic Reviews*, 31, 99-112.

Weatherby, N. L., Needle, R., Cesari, H., Booth, R., McCoy, C. B., Watters, J. K., . . . Chitwood, D. D. (1994). Validity of self-reported drug use among injection drug users and crack cocaine users recruited through street outreach. *Evaluation and Program Planning*, 17(4), 347-355. [http://dx.doi.org/10.1016/0149-7189\(94\)90035-3](http://dx.doi.org/10.1016/0149-7189(94)90035-3)

White, W. (2009). *Peer-based addiction recovery support: History, theory, practice, and scientific evaluation*. Chicago, IL: Great Lakes Addiction Technology Transfer Center and Philadelphia Department of Behavioral Health and Mental Retardation Services.

Witkiewitz, K. & Marlatt, G.A. (2004). Relapse prevention for alcohol and drug problems: That was Zen, this is Tao. *American Psychologist*, 59(4), 224-235.

Yanos, P., Primavera, L., & Knight, E. (2001). Consumer-run service participation, recovery of social functioning, and the mediating role of psychological factors. *Psychiatric Services*, 52, 493-500.

Zeidonis, D.M. & Trudeau, K. (1997) Motivation to quit using substances among individuals with schizophrenia: Implications for a motivation-based treatment model. *Schizophrenia Bulletin*, 23, 229-238.

Zerden, L.D., López, L.M., & Lundgren, L. (2010). Needle sharing among Puerto Rican injection drug users in Puerto Rico and Massachusetts: Place of birth and residence matter. *Substance Use and Misuse*, 45(10), 1605-22.

BIOGRAPHICAL SKETCH

Provide the following information for the Senior/key personnel and other significant contributors in the order listed on Form Page 2.
Follow this format for each person. **DO NOT EXCEED FOUR PAGES.**

NAME Jordana Muroff	POSITION TITLE Assistant Professor, Boston University School of Social Work		
eRA COMMONS USER NAME (credential, e.g., agency login) muroff.jordana			
EDUCATION/TRAINING (Begin with baccalaureate or other initial professional education, such as nursing, include postdoctoral training and residency training if applicable.)			
INSTITUTION AND LOCATION	DEGREE (if applicable)	MM/YY	FIELD OF STUDY
University of Michigan, LS&A, Ann Arbor, Michigan	B.A.	1996	Psychology
University of Michigan, SSW, Ann Arbor, Michigan	M.S.W.	1999	Social Work
University of Michigan, Rackham Graduate School	M.A.	2001	Psychology
University of Michigan, Rackham Graduate School	Ph.D.	2004	Social Work and Psychology
VA Health System, University of Michigan, Ann Arbor, Michigan		2004-2006	Post-doctoral trainee

Positions and Employment

- 2006-present Assistant Professor, Boston University School of Social Work, Boston, MA
 2004-2006 Post-doctoral Fellowship, HSR&D Center of Excellence, VA Ann Arbor Healthcare System, The Center for Behavioral and Decision Sciences in Medicine, University of Michigan, Ann Arbor, MI
 2003-2006 Research Staff, University of Michigan Health System, Department of Internal Medicine - Rheumatology, Chronic Pain and Fatigue Research Center, Ann Arbor, MI
 2004 Adjunct Faculty Instructor, University of Michigan School of Social Work, Ann Arbor, MI
 2004 Study Coordinator/Graduate Research Assistant, University of Michigan School of Social Work
 2002-2003 Social Work Post-MSW Fellow, University of Michigan Health System, Dept of Psychiatry
 2001-2003 Study Coordinator/Graduate Research Assistant, University of Michigan School of Social Work and University of Michigan Health System - Anxiety Disorders Clinic, Ann Arbor, MI
 2000-2001 Social Work Post-MSW Intern, University of Michigan Health System, Dept of Psychiatry
 1999-2001 Pre-Doctoral Research Trainee, University of Michigan - Institute for Social Research
 1999-2000 Social Work Intern, University of Michigan Health System, Dept of Psychiatry, Ann Arbor, MI
 1998-1999 Graduate Student Research Assistant, University of Michigan School of Social Work and University of Michigan Institute for Social Research, Ann Arbor, MI
 1996-97 Course Instructor, Technical School and EFL Department, Instituto Cultural Dominicano Americano, Santo Domingo, Dominican Republic

Honors

- 1993-1996 Dean's List, Class Honors, University of Michigan College of Literature, Science and Arts
 1995 Golden Key National Honor Society Inductee, University of Michigan, Ann Arbor, MI
 1996 Phi Beta Kappa National Honor Society Inductee, University of Michigan, Ann Arbor, MI
 1999-2001 NIMH Pre-Doctoral Training Fellowship, University of Michigan School of Social Work
 2003 Spot Award, University of Michigan Health System, Department of Social Work
 2004 Ph.D. Dissertation Minority Health Statistics Grant Program Award
 2009 Summer Undergraduate Research Opportunity Program Award
 2010 Beck Institute Scholarship Competition

Selected Peer-reviewed Publications (Selected from 24 peer-reviewed publications)

1. Larson, M.J., Amodeo, M., LoCastro, J.S. **Muroff, J.** Smith, L. & Gerstenberger, E. (in press). Randomized trial of web-based training to promote counselor use of cognitive behavioral therapy skills in client sessions. *Substance Abuse*.
2. **Muroff, J.**, Steketee, G., Bratiotis, C., & Ross, A. (2012). Group cognitive and behavioral therapy and bibliotherapy for hoarding: A pilot trial. *Depression and Anxiety*, 29(7), 597-604. PMID: 22447579
3. Ruth, B.J., Gianino, M., **Muroff, J.**, McLaughlin, D., & Feldman, B.N. (2012). "You can't recover from suicide!": Perspectives on suicide education in MSW programs. *Journal of Social Work Education*,

- 48 (3), 501-516.
- 4. **Muroff, J.**, Bratiotis, C., & Steketee, G. (2011). Treatment for hoarding behaviors: A review of the evidence. *Clinical Social Work Journal*, 39(4), 406-423.
 - 5. **Muroff, J.** (2011). Thinking outside the box: Novel delivery methods for treating hoarding. *International Journal of Cognitive Therapy*, 4(3), 280-296
 - 6. **Muroff, J.**, Amodeo, M., Larson, M.J., Carey, M., & Loftin, R. (2011). A data management system integrating web-based training and randomized trials. *Journal of Educational Technology*, 14(2), 136-48
 - 7. Storch, E.A., **Muroff, J.**, Lewin, AB, Geller, D., Ross, A., McCarthy, K. Morgan, J., Murphy, T. K., Frost, R., Steketee, G. (2011). Development and preliminary psychometric evaluation of the Children's Saving Inventory. *Child Psychiatry and Human Development*, 42(2), 166-182. PMID: 20886284
 - 8. Schmalisch, C., Bratiotis, C., & **Muroff, J.** (2010). Processes in group cognitive and behavioral treatment (CBT) for compulsive hoarding. *Cognitive and Behavioral Practice*, 17(4), 414-425
 - 9. **Muroff, J.**, Steketee, G., Himle, J., & Frost, R. (2010). Delivery of internet treatment for compulsive hoarding (D.I.T.C.H.). *Behaviour Research and Therapy*, 48(1), 79-85. PMID: 19800051
 - 10. Storch, E.A., Larson, M. J., **Muroff, J.**, Caporino, N., Geller, D., Reid, J., Morgan, J., Jordan, P., & Murphy, T. (2010). Predictors of functional impairment in pediatric obsessive-compulsive disorder. *Journal of Anxiety Disorders*, 24(2), 275-283. PMID: 20056376
 - 11. **Muroff, J.** Steketee, G., Rasmussen, J. Gibson, A., Bratiotis, C. Sorrentino, C. (2009). Group cognitive and behavioral treatment for compulsive hoarding: A preliminary trial. *Depression and Anxiety*, 26(7), 634-640. PMID: 19569229
 - 12. Himle, J., **Muroff, J.**, Taylor, R. J., Baser, R. E., Abelson, J. M., Hanna, G., Abelson, J. L., Jackson, J. S. (2008). Obsessive-compulsive disorder among African Americans and blacks of Caribbean descent: Results from the National Survey of American Life (NSAL). *Depression and Anxiety*, 25(12) 993-1005. PMID: 18833577
 - 13. **Muroff, J.**, Edelsohn, G. A., Joe, S. & Ford, B. (2008). The role of race in diagnostic and disposition Decision making in a pediatric psychiatric emergency service. *General Hospital Psychiatry*, 30(3), 269-276. PMID: 18433660
 - 14. **Muroff, J.R.**, Jackson, J.J., Mowbray, C.T., & Himle, J.A. (2007). The influence of gender, patient volume and time on clinical diagnostic decision making in the psychiatric emergency services. *General Hospital Psychiatry*, 29, 481-488. PMID: 18022040
 - 15. Himle, J.A., Fischer, D.J., **Muroff, J.**, Van Etten, M.L., Lokers, L., Abelson, J.A., & Hanna, G.L. (2006). Videoconferencing-based cognitive-behavioral treatment of obsessive-compulsive disorder. *Behavior Research and Therapy*, 44(12), 1821-1829. PMID: 16466688
 - 16. Trierweiler, S., **Muroff, J.**, Jackson, J. S., Neighbors, H., & Munday, C. (2005). Clinician race, situational attributions, and diagnosis of mood versus schizophrenia Disorders. *Cultural Diversity and Ethnic Minority Psychology*, 11(4), 351-364. PMID: 16478354
 - 17. Neighbors, H. W., Trierweiler, S. J., Ford, B. C., & **Muroff, J. R.** (2003). Racial differences in DSM diagnosis using a semi-structured instrument: the importance of clinical judgment in the diagnosis of African Americans. *Journal of Health and Social Behavior*, 44 (3), 237-256.
 - 18. Wallace, J.M., Jr. and **Muroff, J.R.** (2002). Preventing substance abuse among African American children and youth: race differences in risk factor exposure and vulnerability. *Journal of Primary Prevention*, 22(3), 235-261. Reprinted in National Center for the Advancement of Prevention State of the Science Book. J. Emshoff (Ed).
 - 19. Spencer, M. S., **Muroff, J.R.**, & Delva, J. (2000). Conditional welfare: A family social work perspective on mandatory drug testing. *Journal of Family Social Work*, 4 (4), 3-14.

Selected Research Support

SAMHSA Lundgren (PI) Sept 30, 2009-Sept 29, 2012
Substance Abuse Mental Health Services Administration
Center for Substance Abuse Treatment (CSAT)
"Evidence Based Integrated Dual-Diagnosis Treatment for Latina/os with Addiction Disorders"
Outcome Evaluation to examine the effectiveness of IDDT for Latino drug users.
Role: Co-Investigator

NAME: López, Luz M.		POSITION TITLE: Clinical Associate Professor	
eRA COMMONS: Lopez.Luz			
University of Puerto Rico	BA	1987	Social Science
University of New York at Buffalo	MSW	1990	Social Work
Tulane University, New Orleans	MPH	1998	International Public Health
Tulane University, New Orleans	PhD	2004	Social Work

PROFESSIONAL POSITIONS

- 1990-1994 Bilingual Social Worker, Language Development Program, Buffalo, NY
 1992-1994 Instructor, State University of New York at Buffalo, Buffalo, New York.
 1993-1995 Instructor, Tulane University School of Social Work, New Orleans, Louisiana.
 Summer 1995 Research Assistant, Center for Socio-Medical Research, School of Public Health, Medical Science Campus, University of Puerto Rico, Rio Piedras, Puerto Rico.
 1995-1998 Research Assistant, Tulane University School of Social Work, New Orleans
 1997-1999 Health Educator, Latino Outreach/HIV Counseling and Testing: NO/AIDS Task Force, New Orleans, Louisiana.
 1999-2000 Field Evaluation Coordinator, Boston University School of Public Health, Data Coordinating Center, Boston, MA.
 2000-2004 Program Manager, three national federal SAMHSA/CSAT multi-site research programs, Boston Public Health Commission, Boston, MA.
 2005-2011 Assistant Professor, Boston University School of Social Work. Boston, MA.
 2011-present Clinical Associate Professor, Boston University School of Social Work, Boston, MA & Associate Director dual degree program MSW/MPH.

OTHER PROFESSIONAL EXPERIENCES

- 1997-1999 Latino Representative, City of New Orleans, HIV/AIDS Community Planning Group
 2000-2005 Member, Center for Substance Abuse Treatment (CSAT) Latino Coalition.
 2004-2005 Consultant, Center for Substance Abuse Treatment, Network for the Improvement of Addiction Treatment (NIATx).
 2005 Consultant & Interviewer, NIMH grant "A Contextual Model of Microbicide Acceptability", Brown University and Fenway Community Health Center. Boston, Massachusetts.
 2006-2008 Consultant, Massachusetts Department of Public Health, SAVE Families from Domestic Violence, Learning Action Lab, multi-site study. Travel team member in Washington D.C., Family Violence Prevention Fund & the Association of Child and Maternal Health Programs.
 2006-2010 Consultant, National Institute of Justice study on perspectives on battered mothers and their children fleeing to the US for safety: A study of Hague Convention cases, in collaboration with University of Washington and University of Minnesota Schools of Social Work.
 2011-present Executive Board of Directors, National Association of Social Workers (NASW), MA

AWARDS AND HONORS

- 1987 Who's Who among Students in American Colleges and Universities

1989 -1990	Special Merit Fellowship at State University of New York at Buffalo
1995 -1998	Research Assistantship Fellowship, Tulane University School of Social Work
2005	Training Fellowship, National Hispanic Science Research Summer Institute, Houston, Texas. National Institute on Drug Abuse (NIDA) and National Institute of Health (NIH)
2005	Training Fellowship, Family Research Consortium, National Institute of Mental Health, (NIMH).
2010	Women of Courage Award for Contributions to Education, La Alianza Hispana, Massachusetts

SELECTED PUBLICATIONS

- Zerden, L., López, L. & Lundgren, L. (2012). HIV prevention with Puerto Rican injection drug users. In K. C. Organista (Ed.), HIV Prevention with Latinos: Theory, Research and Practice. (383-403). New York: Oxford University Press.
- López, L. & Vargas E. (2011). En dos culturas: Group work with Latino immigrants and refugees. In Geoffrey , L G. & Ephross (Eds). Group Work with Populations at Risk. (Third Edition) (136-152). Oxford University Press
- Zerden, L., López, L.,& Lundgren, L. (2010). Needle sharing of Puerto Rican injection drug users in a dual site study: Location matters. *Substance Abuse and Misuse*. Vol. 45, No. 10, Pages 1605-1622.
- Amodeo, M. & López, L. (2010). Social work interventions with alcohol and other drug problems. In J. R. Brandell (Ed.), Theory and practice in clinical social work. (Second Edition) (525-559). Thousand Oaks, CA: Sage Publications.
- López, L., Zerden, L. Fitzgerald, T., & Lundgren, L. (2008). Capacity enhancement prevention model for Puerto Rican injection drug users in Massachusetts and Puerto Rico. *Evaluation and Program Planning*, 31(1), 64-73.
- Amodeo, M., & López, L. (2008). Alcohol and Drug Problems: Practice Interventions. In T. Mizrahi & L. Davis (Eds.), *Encyclopedia of Social Work (20th edition)*. New York: Oxford University Press.

RESEARCH SUPPORT

- Oct. 2008-present Substance Abuse and Mental Health Services Administration (SAMHSA), Center for Substance Abuse Prevention (CSAP), Grant number: **SP015081**
Role: Principal Investigator for Evaluation Evaluation of the *Tapestry Health La Voz: Prevention of Substance Abuse and HIV for Latino Reentry Program* in Springfield, Massachusetts..
- Oct. 2008-present Substance Abuse and Mental Health Services Administration (SAMHSA), Center for Substance Abuse Treatment (CSAT), Grant number: **TI020726**
Role: Co-Principal Investigator for Evaluation. Outcome evaluation of Tapestry Health *La Voz: Treatment for Homeless* in Springfield, Massachusetts.
- June 2006-present Voices Boricuas: HIV Risk Behaviors, Prevention and Health Care Service Utilization among Drug Users on the Island of Puerto Rico. Funded by a Dean's grant at Boston University School of Social Work. Role: Principal Investigator

Biographical Sketch: Dr. Lena Lundgren, Ph.D. – Co-Principal Investigator

Education:

The University of Chicago	M.A. Policy Analysis	1984
The University of Chicago	Ph.D. Social Work	1991

Relevant Experience:

- 1991-1994 Director of the Urban Summit Programs. The Center for the Study of Urban Inequality, Irving B. Harris School of Public Policy. The University of Chicago.
- 1994-2002 Assistant Professor of Policy and Research. Boston University School of Social Work (BUSSW).
- 2002-2008 Associate Professor of Policy and Research. BUSSW.
- 1997-Present Director, Center for Addictions Research & Services. BUSSW.
- 2008-Present Professor, Welfare Policy & Associate Dean of Research. BUSSW.

Honors/Awards

- 2010- 2014 Guest Researcher fellowship, Swedish National Institute for Social/ Labor Market Research.
- 2010 Member of Expert panel World Health Organization (WHO). Substance use & HIV in the Americas.
- 2010 Reviewer of MHGAP intervention guide-Addiction-Mental Health, WHO.

Selected Peer Reviewed Publications (Selected from 58 peer-reviewed publications)

- Lundgren, L., Amodeo M., Thompson, D., Collins C., & Ellis, M. (1999). HIV/AIDS outreach and substance abuse treatment to hard-to-reach populations. Editorial. *Evaluation and Program Planning*, 22(2), 245-250.
- Lundgren, L., Amodeo, M., & Chassler, D. (2005). Mental health status, drug treatment use, and needle sharing among injection drug users. *AIDS: Prevention and Education*, 2005, 17(6), 525-539.
- Lundgren, L., Chassler, D., Ben-Ami, L., Purington, T., & Schilling, R. (2005). Factors associated with emergency room use among injection drug users of African American, Hispanic and white European background. *The American Journal on Addictions*, 14(3), 268-280.
- Lundgren, L., & Delgado, M. (2008). HIV outreach and substance abuse treatment for Latino drug users: Implications for program planning. Editorial. *Evaluation and Program Planning*, 31(1), 61-63.
- Zerden, L.D., López, L.M., & Lundgren, L. (2010). Needle sharing among Puerto Rican injection drug users in Puerto Rico and Massachusetts: Place of birth and residence matter. *Substance Use and Misuse*, 45(10), 1605-22.*
- Lundgren, L., & Delgado, M. (2008). HIV outreach and substance abuse treatment for Latino drug users: Implications for program planning. Editorial. *Evaluation and Program Planning*, 31(1), 61-63.
- Lopez, L., Zerden, L.D., Fitzgerald, T., & Lundgren, L. (2008). Puerto Rican injection drug users: Prevention implications in Massachusetts and Puerto Rico. *Evaluation and Program Planning*, 31(1), 64-73.
- Delgado, M., Lundgren, L., Deshpande, A., Lonsdale, J., & Purington, T. (2008). The association between acculturation and needle-sharing among Puerto Rican injection drug users. *Evaluation and Program Planning*, 31(1), 83-91.
- Reynoso-Vallejo, H., Chassler, D., Witas J. & Lundgren, L. (2008). Patterns of drug treatment entry by Latino male injection drug users from different national/geographical backgrounds. *Evaluation and Program Planning*, 31(1), 92-101.

- Amodeo, M., Chassler, D., Oettinger, C., Labiosa, W., & Lundgren, L. (2008). Client retention in residential drug treatment for Latinos. *Evaluation and Program Planning*, 31(1), 102-112.
- Lundgren, L., Amodeo, M., Cohen, A., Chassler, D., & Horowitz, A. (2011). Modifications of evidence-based practices in community-based addiction treatment organizations: A qualitative research study. *Addictive Behaviors*. 36(6), 630-635.
- Lundgren, L., & Rieckmann, T. (2011). Research on implementing evidence-based addiction treatment practices in community-based organizations: Policy and program implications. Editorial. *Evaluation and Program Planning*, 34(4), 353-355.
- Lundgren, L., Chassler, D., Amodeo, M., D'Ippolito, M., Sullivan, L. (2012). Barriers to implementation of evidence-based addiction treatment: A national study. *Journal of Substance Abuse Treatment*.

Selected Research Support

- 1. PI: Lundgren: Factors Associated with Adopting Evidence-based Substance Abuse Treatment Practices in Community-based Organizations.** Robert Wood Johnson Foundation, Substance Abuse Policy Research Program 2008-2012.
- 2. PI: Lundgren: In the Community and for the Community (ICFC) Boston University Mental Health Training Program for Medically underserved communities.** Health Resources and Service Administration.
- 2. PI evaluation component: Lena Lundgren.** Substance Abuse Mental Health Services Administration (SAMHSA,) Center for Substance Abuse Treatment (CSAT), 2010-2013.**Implementing integrated Addiction Treatment, post-incarceration re-entry, and housing stabilization services to recently incarcerated Latino drug users.** Outcome Evaluation of health intervention for offender re-entry population SAMHSA/CSAT. The goal of the study is to reduce rates of relapse and recidivism, increase access to support networks, increase employment and stable housing.
- 4. PI evaluation component: Lena Lundgren.** Substance Abuse Mental Health Services Administration (SAMHSA,) Center for Substance Abuse Treatment (CSAT), 2008-2013.**Implementing HIV prevention, residential drug treatment, and mental health services to Latina/os with Addiction Disorders.** Outcome Evaluation to examine the effectiveness of expanded services for Latino drug users.
- 5. PI evaluation component: Lena Lundgren.** Substance Abuse Mental Health Services Administration (SAMHSA,) Center for Substance Abuse Treatment (CSAT), 2008-2013.**Implementing integrated Addiction Treatment, HIV and housing stabilization services aimed at homeless racial and ethnic minority drug users.** Outcome Evaluation of health intervention for hard-to-reach vulnerable population SAMHSA/CSAT. The goals are to reduce rates of homelessness, increase use of substance abuse treatment, (3) increase utilization of mental health screening and mental health counseling, and (4) increase use of HIV rapid testing, HIV counseling and STI screening.
- 6. PI evaluation component: Lena Lundgren.** Substance Abuse Mental Health Services Administration (SAMHSA,) Center for Substance Abuse Treatment (CSAT), 2006-2011 (completed).**Implementing Mobile Van HIV prevention and primary health care services to Latino drug users.** Outcome Evaluation of health intervention for hard-to-reach vulnerable population SAMHSA/CSAT. Sub-contract with La Voz/Tapestry Health, outpatient and HIV outreach organization, Springfield, MA.

BIOGRAPHICAL SKETCH

Provide the following information for the key personnel and other significant contributors in the order listed on Form Page 2.

Follow this format for each person. **DO NOT EXCEED FOUR PAGES.**

NAME Kimberly Johnson	POSITION TITLE Researcher		
eRA COMMONS USER NAME KJOHNSON1			
EDUCATION/TRAINING (<i>Begin with baccalaureate or other initial professional education, such as</i>			
INSTITUTION AND LOCATION	DEGREE (if applicable)	YEAR(s)	FIELD OF STUDY
Smith College	AB	1984	Biology
University of Southern Maine	MSEd	1987	Counselor Education
University of Southern Maine	MBA	2006	Finance
University of Wisconsin, Madison	PhD	2013 (anticipated)	Population Health

A. My research focus has been technology implementation with technology defined broadly to include evidence based practices as well as computer technologies. In addition to the research funding below, I have just been awarded two major grants from SAMHSA that are related to the work in this application. First, I am the new project director for the National Coordinating Center for the ATTC. We intend to support the ATTCs in bringing a stronger focus on implementation to their work. Second, I am developing the curriculum for the SAMHSA Provider Business Operations Learning Collaborative. In this project we will be developing e-learning programs to share knowledge and learning collaborative to support implementation using a model of turning the classroom upside down that is becoming popular in higher education. Face to face time is used to practice skills and troubleshoot problems while content area information is delivered in an electronic format combining the best of educational and implementation research. I believe this experience and focus will bring value to the proposed project.

B. Positions and honors. List in chronological order previous positions, concluding with your present position. List any honors.

1986-1988	Child and Family therapist, Tri County Mental Health, Lewiston, ME
1990-1994	Program Manager, Adolescent Services, Y-Intervention, YWCA, Lewiston, ME
1994-2000	Executive Director, Crossroads for Women, Windham, ME
2000-2007	Director, Office of Substance Abuse, State of Maine, Augusta, ME
2007- 2008	Researcher, Network for the Improvement of Addiction Treatment, University of WI, Madison, WI
2008-present	Deputy Director, CHESS Research Center, University of WI, Madison, WI

Other Experiences and Memberships

1995-2000	President, Maine Association of Substance Abuse Programs
2003, 2005	Treasurer, National Association of State Alcohol and Drug Abuse Directors
2007	Vice President of Internal Affairs, National Association of Drug Abuse Directors
2007-present	Executive Committee, Community Alcohol and Drug Abuse Coalitions of America

Honors

2003: Federal DHHS Commissioner's Award for Child Welfare

2005: Maine Women's Addiction Treatment Council Annual Recognition

2006: American Association for Addiction Treatment: Friend of the Field

2007: National Association of State Alcohol and Drug Abuse Directors: Recognition for Service to the field of Substance Abuse Treatment and Prevention

2010 Community Based Leadership Award American Public Health Association Alcohol and Drug Section

Invited Presentations (Selected)

Addiction Treatment in Health Reform, Some Considerations APHA national conference 10/29/10

The Action Campaign: Social Marketing as a Tool to Change Provider Behavior NIDA Blending Conference, April 2010

Using policy and practice improvement to increase use of medication-assisted treatment for addiction, APHA 11/1/11

If We Build it, Will they Come? A Pilot Study of a Cell Phone Application to Support Drug Court Participants HMISS mHealth Summit 12/4/11

Recovery Management using Mobile Phones: Momentary Ecological Assessments and Interventions for Women Offenders in Recovery APA 8/4/12

Peer Reviewed Publications

Johnson K, Ford J, McClusky M. 2012 Promoting new practices to increase access to and retention in addiction treatment An analysis of five communication channels. *Addictive Behaviors* 37(11), 1193–1197

Gustafson, DH, Boyle, MG, Johnson KA, et al. An E-Health Solution for People with Alcohol Problems. *Alcohol Health and Research World* 33(4) 327-337

Johnson K, Isham A, Shah DV, Gustafson DH. Potential Roles for New Communication Technologies in Treatment of Addiction. *Curr Psychiatry Rep.* 2011 Jul 8. [Epub ahead of print] PubMed PMID: 21739171. NIHMSID: NIHMS317049.

Ongoing Research Support

1RC4DA029975-01 Johnson, Gustafson (co –PI) 09/30/10 – 09/29/13 NIDA

Building Sustainable Community Infrastructure to Develop and pilot an electronic information/communication system to support the adoption of evidenced based practices

Role: Principle Investigator

P50HS019917 Gustafson (PI) 06/01/11-05/29/16 AHRQ

Active Aging: Supporting Individuals and Enhancing Community-based care through Health IT (HIT) (P50) Develop and test technology tools for keeping aging adults safely aging in place using a community participatory research model. Ms Johnson is PI on a project in this P50 that involves engaging the community using an Asset Based Community Development model to identify and engage resources to support aging in place and develop ICTs to support community resource development to help people age in place.

Role: Co-investigator

GPHPM0183A McCarty (PI) 07/01/10 – 06/29/13 NIDA

Integrating Addiction Treatment and Medical Care in a Commercial Health Plan: Using a model developed in a previous grant to use process improvement and funder level change to increase the utilization of medication assisted treatment for addiction.

Role: Co-Investigator

Biographical Sketch

Diliana De Jesús is the **Deputy Director** for Casa Esperanza, and previously served as both Director of Development and Director of Planning and Compliance. She oversees all four of Casa Esperanza's clinical programs (Men's Residential, Latinas y Niños Center, Supportive Housing, and Relapse Prevention and Outpatient Services). She has played a leadership role in the implementation of four SAMSHA-funded initiatives, and served as Project Director for the SAMHA funded Offender Reentry Program and serves as director of the Transcend: Empowerment, Recovery and Reentry Program grant funded by SAMHSA. As the agency's Compliance Officer, she works with the Management Team to ensure adherence to all policies related to programmatic, financial, outcomes reporting, and facilities requirements.

Diliana has more than 6 years experience in social service management and more than 9 years experience working within the Latino community; working with at-risk youth and recent immigrants; serving individuals with co-occurring substance use and mental health disorders; implementing evidence-based practices; and working with issues related to incarceration and reintegration into society. She holds a Bachelors Degree in Communications from Boston University. She is fully bilingual Spanish/English and has both first-hand personal and professional experience of individuals with addiction and mental health disorders.

Biographical Sketch

Emily Stewart is the **Executive Director** of Casa Esperanza, Inc. She joined the agency as Director of Development in 2004; and later served as Deputy Director for six years, bringing to the agency more than 15 years of experience with populations facing barriers to access services, including at-risk women and girls, disadvantaged youth, homeless individuals and families, and individuals living with mental health and substance use disorders.

During her tenure at Casa Esperanza, she has grown the annual operating budget by more than \$1.7 million, securing more than \$3.6 million in grant funding, and negotiating more than \$400,000 dollars in increases to State contracts, as well as securing more than \$4 million in government and private financing for the Nueva Esperanza project. She established an Operations Department to manage 8 buildings and 37 housing units; led a complete rebranding of the agency, including logo and web-site redesign; conceived the annual Hope in Action benefit; and initiated a IT/Network overhaul, doubling server capacity and improving off-site backup and security protocols.

She has led integration of culturally competent evidence-based practices at Casa, and guided the implementation of four SAMHSA funded federal grants, as Administrative Director for the Treatment for Homeless, Offender Reentry and TCE-HIV programs, and Principal Investigator of the Pathways to Recovery program. She has presented outcomes data for these projects at the local, state and national levels, and served on numerous panels and working groups around policy development in areas such as criminal justice, integrated care, and rate reform.

Emily holds a Bachelors Degree in Communications from the University of Massachusetts, and began her career in broadcasting as a producer for radio and television. She then transitioned into the non-profit sector, and spent 12 years consulting to start-up businesses, academic institutions, community health centers, and government agencies on strategic communications, management, program development, fundraising, special events, and property development.

I. CONFIDENTIALITY AND SAMHSA PARTICIPANT PROTECTION / HUMAN SUBJECTS

1. Protect Clients and Staff from Potential Risks:

The proposed project includes completion of questionnaires including the entire Government and Performance and Regulatory Act (GPRA) questions and additional questions for the outcome assessment (e.g., risk of relapse, medication adherence, A-CHESS app usage) and process evaluation. As such, risks to both clients and staff are minimal. Possible risks to participants are: (a) the possibility of some participants feeling uncomfortable as they discuss issues of homelessness, drug use, relapses, medication adherence, sexual activities, mental health status, traumatic events, incarceration and criminal history, social connectedness, and drug treatment experiences; and (b) possible risk to confidentiality. There are no known or expected physical, medical, or social risks associated with client or staff participation. The possibility of risks to confidentiality is very low. All staff will go through confidentiality trainings, and all data collected will be stored in locked file cabinets and password-protected computers and servers.

To protect privacy, participants enter set-up information about their support system, important triggers, and interventions likely to help with those triggers in private with the case manager with whom that patient already has a relationship. A-CHESS is meant to be specifically tailored to each participant's needs. Recruitment will be confidential, and any questions/concerns will be addressed by the BU CARS and Casa Esperanza teams. All participant data through A-CHESS will be collected and maintained on a secure, encrypted database at the Center for Health Enhancement Systems Studies at the University of Wisconsin, Madison. Additionally, subject and data confidentiality will be maintained as follows: Study participants will be assigned a screening ID to be used in place of their real name. Electronic study data will be kept in a secure, limited access, password-protected file service. Any hard copy study data will be kept in a locked cabinet in a secure environment. Participants will select a username/identifier to use on A-CHESS. BU CARS team will have the ability to download the data onto their own servers using the A-CHESS administrative tool. Data entered and stored through SurveyMonkey/Qualtrics is automatically encrypted during the survey administration using 128-bit encryption of response data preventing unauthorized users from viewing, exporting, or modifying collected data once questions are answered. Data will be stored on the SSW File server with access restricted to Dr. Muroff and her study personnel behind the BU Campus firewall. The file server is in a locked, secure environment and is backed up daily.

Interviewer instructions will clearly specify that no interview is to be pursued if:

- the respondent is ill, just recovering from major surgery, or other treatment;
- the respondent expresses reluctance due to a current family crisis (a close family member is terminally ill or has just died, or the respondent is in the midst of divorce or separation proceedings); or
- the respondent is unable to complete the interview because of a major health or organic condition (for example, lack of hearing or sight, mental retardation, or major speech pathology).

These precautions will help to avoid distortion in answers or atypical responses, as well as reduce the risk of causing the respondent psychological stress. If the problem is temporary, an

interview may be rescheduled at the discretion of the P.I., provided the respondent consents verbally to a later re-contact. It should be noted that all staff will be trained to respond to issues related to abuse, trauma and domestic violence. Workers will re-emphasize to the clients who report any incidence of domestic violence, that all information is completely confidential.

In order to minimize risks that may be faced by project staff conducting interviews, we plan to use interviewers that have experience working with Latino, substance-using adults with co-occurring mental health disorders. A requirement for hiring is that the interviewers have worked extensively with clients who are high on drugs, evidencing psychiatric symptoms, or threatening aggressive behavior. Further, staff training includes a session on client and interviewer safety. This session covers information about how to end an interview if a client acts in an unsafe manner.

If any problems arise as a result of participation and/or a participant becomes anxious or upset during any of the procedures, the Casa Esperanza staff (e.g., case manager, peer specialist, deputy director) and the Principal Investigator, Dr. Jordana Muroff and the BU CARS staff will be available to address the concern. Contact numbers for the Casa Esperanza staff, BU PI, and BU IRB will be programmed in the participants' smartphones.

2. Fair Selection of Participants:

- The program is targeting Latino adults with substance use and mental health disorders ranging from 18-55 years of age from across Massachusetts.
- The proposed study will not include children under 18. The grant funding explicitly requires that services for this grant be restricted to clients 17 and older, and 17-year-olds will not be included for the following reasons: the study asks questions on illegal drug use, gang activity and sexual risk behavior. In order to ask these questions we would need to obtain the informed consent from a parent or legal guardian who might then be informed about these activities.
- The proposed study may include pregnant women; however, the proposed project will not provide services tailored for women who are pregnant. Women who are pregnant will receive the same treatment services as other clients, but will have access to a range of supports for pregnant and post-partum women, with referrals to other services being made as needed.
- Those clients who have successfully completed the residential program and are leaving Casa Esperanza will be recruited. Once a client expresses interest, Casa Esperanza staff will schedule a screening and assessment. The client will be informed of this A-CHESS smartphone project as well as the evaluation component of the project and informed that participation is voluntary and that declining to participate in the study will not affect eligibility services to which they are already entitled. Clients will be randomized to either receive the smartphone or services per usual (comparison group).
- Smartphone with the loaded A-CHESS application will be provided to all participants randomized to the intervention group.
- HIV rates among inmates in Massachusetts are the fifth highest in the nation (Bureau of Justice Statistics, 2006). Additionally, Latinos account for 25% of the total number of people living with HIV/AIDS in Massachusetts, despite only comprising 6% of the state's population (MDPH).¹ Therefore, Casa Esperanza is keenly aware of the need to

provide HIV counseling, testing, case management and medical services to the population served by this project. Although no HIV services will be funded through this project, all participants in this project will have access to HIV counseling, testing, case management and medical services on Casa Esperanza's campus at our *Tu Bienestar Clinic*. Specialty services will be available through referral to Boston Medical Center, within easy walking distance of Casa Esperanza. Casa Esperanza Peer Specialists will provide transportation to medical and other services to HIV+ clients as needed.

3. Absence of Coercion:

The informed consent form includes assurances that: (a) client participation is entirely voluntary; (b) declining to participate in the performance assessment will in no way affect client ability to receive services, or the type or quality of services received (hence individuals who refuse to participate in the evaluation can still receive services through proposed program); (c) a client can refuse to answer specific questions; (d) clients can terminate participation in the project at any time without penalty; (e) clients will not be compensated monetarily for participation in the proposed program; and (f) clients can contact the Casa Esperanza Director, the Principal Investigator or BU IRB office directly if they have questions or concerns. To assist the project in exceeding the required follow-up rate of 80%, the agency has previously found it useful to provide a small incentive (\$20 supermarket gift card) for clients that participate in the collection of GPRA data at six-month and 12-month follow up GPRA. This type of incentive has been used in several prior SAMHSA-funded projects with success and we do not believe that it provides "undue inducement" to participation in the follow up interviews.

4. Data Collection:

Data will be collected directly from Casa Esperanza clients who have completed residential treatment and who will report their own answers about their own behaviors during in-person interviews with project staff. Each client will be interviewed at baseline (discharge) and again six and twelve months later. We will use the entire GRPA instrument in our data collection procedures at baseline (discharge), six month and twelve-month follow up. In addition, a number of other measures will be included for the local performance assessment (through the A-CHESS app and SurveyMonkey/Qualtrics) to assess outcomes about relapse, medication adherence, connectedness with family and community through recovery pro-social activities, mental well-being, and housing stability. Reliability and validity have been established for most of the instruments to be used in interviews (Carlson et al., 1993; Needle et al., 1995; Weatherby, 1994; McLellan et al., 1985; McLellan et al., 1992; McLellan et al., 1980;). Asked in person at baseline and follow-ups, these items will focus on mental health symptoms, risk behaviors, perceived family and social support, outpatient treatment motivation, self-efficacy and behavior complexity which may contribute to recidivism and other difficulties. (See the local site Performance Assessment draft Questionnaire Appendix 2 for more details.)

Baseline (discharge) interviews will be conducted on-site at Casa Esperanza's residential treatment site. No specimens will be collected as part of this project's services. **Attachment 2** provides copies of four data collection instruments Follow-up interviews may take place in another place of the client's choosing which affords appropriate confidentiality. No specimens will be collected as part of this project's services.

5. Privacy and Confidentiality:

Below, we outline the confidentiality procedures we have used in five prior research projects (which all focused on interviewing substance using populations) that received Boston University IRB approval.

In addition, clients will be assured that all their communications with staff will be treated as confidential communications. No individual information from one-on-one interviews will be identifiable, because all data results will be reported in the aggregate.

In addition, there is a possibility that two individuals who might be sexual partners are both interviewed. In the case that this happens, partners will not be given any information about the content of the interview with their partner--or even whether or not their partner participated. While there is no circumstance in which any respondent would be informed of any other respondent's participation in the study, the project will take extreme precautions to mindfully protect women who might be victims of domestic violence.

At discharge, clients will be asked to provide "tracking and locator" information to enable staff to follow up with the client six months and 12 months after the baseline (discharge) interview. All locator information will be under the direct supervision of the on-site Casa Esperanza Program Director. This information will be kept in a locked file cabinet at the agency site and will be accessible only to two staff: the interviewer and the Program Director. These individuals will sign a document saying that they will keep the locator information confidential. At the end of the project, all locator information will be destroyed. Also, the individuals who have access to the locator information will not have the completed questionnaires, which will be in a different location.

The performance assessment questionnaires will not include any identifying information. No names, social security numbers, addresses, or other identifying information will be on the questionnaires. A blind, arbitrary number will be used to identify questionnaires. Neither data entry personnel nor the data analyst will have respondent names, social security numbers, and addresses or phone numbers or other identifying information. Performance Assessment staff will not have access to either the electronic or paper key that links the Boston University assigned ID to the identifying data held by the agency. All questionnaires will be stored in locked file cabinets in locked offices.

Interview data from questionnaire booklets, entered into SPSS, will be stored in a restricted-access folder on a highly secure Boston University School of Social Work file server. In order to access this data, individuals must be explicitly granted access to this folder. They must then securely log onto machines on the BU network using strong authentication via a unique, personal login and complex kerberos password. The file server is in a locked, secure environment and is backed up daily. The server provides both better privacy security and security of confidentiality than the hard drive of a personal computer: it is backed up nightly and will not "crash" the way a hard drive can.

Confidentiality among research staff will be maintained by using the following system: For full security, all completed questionnaires will be kept at Boston University in a separate set of files,

filed sequentially by a numeric I.D. in a set of file cabinets that are locked when not being used by project staff. No questionnaires will be allowed off the office premises. All members of the research and clinical staff will sign a confidentiality document as well as go through a training session on the importance of protecting client confidentiality. At the end of the study all questionnaires will be destroyed. We agree to maintain the confidentiality of alcohol and drug abuse client records according to the provisions of **Title 42 of the Code of Federal Regulations, Part II.**

To protect privacy, A-CHESS participants enter set-up information about their support system, important triggers, and interventions likely to help with those triggers in private with the case manager with whom that patient already has a relationship. ACHESS is meant to be specifically tailored to each participant's needs. All participant data through A-CHESS will be collected and maintained on a secure, encrypted database at the Center for Health Enhancement Systems Studies at the University of Wisconsin, Madison. Electronic study data will be kept in a secure, limited access, password-protected file service. Participants will select a username/identifier to use on ACHESS. BU CARS team will have the ability to download the data onto their own servers using the A-CHESS administrative tool. The data will be stored on the SSW File server with access restricted to Dr. Muroff and her study personnel behind the BU Campus firewall. The file server is in a locked, secure environment and is backed up daily, as well.

6. Adequate Consent Procedures:

Approval from the Boston University Institutional Review Board (IRB) is pending until notification of the grant award. Participants will include Latino adults (18 years of age and older) who have successfully completed treatment and are being discharged from Casa Esperanza's residential treatment program. Information provided to clients about the A-CHESS smartphone app project, the assessment/research efforts, and about efforts to protect their confidentiality will be provided in both Spanish and English. The Statement of Informed Consent will be read aloud to all respondents and signed prior to their baseline interview.

Respondents will receive the following information about the project:

- Participation in this Smartphone project and assessments are entirely voluntary;
- Participation will include: access to a Smartphone with the A-CHESS application an in-person assessment interview at baseline (discharge); aftercare planning and relapse and recidivism prevention services including peer support services; supported referrals to additional mental health services, and ongoing outpatient integrated substance abuse counseling and case coordination; and follow-up interviews to conduct outcome and performance measurement.
- The purpose of the program is to offer 24/7 Smartphone technology support to Latino individuals with substance abuse and mental health problems being discharged from residential treatment
- Participants have the right to leave the project at any time without problems;
- Clients who wish to participate will sign statements of informed consent for participation in the data collection and will be provided with a copy of the consent;
- Possible risks from participation include psychological distress from discussing difficult, sensitive information and loss of confidentiality. Several measures are taken to minimize these potential risks, including:

- All project staff will have previous experience working with highly vulnerable, substance abusing Latinos;
- All project staff will be trained on preserving client safety and trauma awareness that should improve interactions with uncomfortable clients;
- Interviewers will be trained on providing support to clients that find particular questions upsetting;
- Clients will be informed of their right to refuse answering particular questions;
- All information will be treated confidentially;
- Only a number will identify the questionnaires and no identifying information will appear on any questionnaire;
- Locator and tracking information will not be provided to the site (BU CARS) that enters and analyzes the information gathered on the questionnaire;
- Results will be published in aggregate form;
- Information shared in interviews will not be shared with others outside of those activities except in the form of number-identified information in booklets – no names

Participants will have the opportunity to participate in either English or Spanish, and Casa Esperanza staff will be able to communicate with clients in either English or Spanish. Consent forms will be read aloud to all participants. If a respondent is willing to participate, s/he will be asked to sign the Informed Consent form (**See Attachment 3, Sample Consent Forms**).

Additional consents may be requested for the release of information to other treatment providers (doctors, psychiatrists) or to refer clients to other services (housing, education, and employment placement) or family members. The release of any and all client information is strictly prohibited without a client's signed written consent which details the information to be released, who it is to be released to and for what purpose. All consent forms are available in both Spanish and English and are reviewed with clients verbally by their Case Manager and Interviewer/research Assistant. Clients are always informed that they may revoke their consent at any time.

7. Risk/Benefit Discussion:

The major benefit is that clients will receive culturally competent 24/7 support via a Smartphone-based approach to treating the chronic problems faced by individuals with substance abuse and mental health disorders. Potential benefits for clients include access to Smartphone technology aimed to assist with relapse prevention, medication adherence, cultivate a network of social supports (e.g., discussion groups, request information from expert, create personal stories, social software to share pictures, etc.), build competency through information services (e.g., summaries of articles, medication information, questions/answers, web-links) and other recovery supports (e.g., panic button, stress reduction exercises, location tracking for identifying and managing high risk situations) as well as case management, and peer support for accessing appropriate resources for medical, employment, housing or other support needs. These aspects and supports are aimed to facilitate bilingual peer recovery, encourage ongoing discussion to build a culture of recovery, expands social networks and address issues of stigma and discrimination, relapse triggers, and medication adherence; increase client capacity for self-management; identify and reduce risky behaviors; maintain recovery; and support overall health and wellbeing.

In addition, this assessment provides a unique opportunity for subjects to participate in furthering research on three major ongoing issues in substance abuse treatment: 1) the recognition and link

between lack of linguistically and culturally competent support services, and co-occurring disorders among Latino substance abusing individuals; 2) the role of technology in extending access and enhancing culturally appropriate care (with pronounced relevance to Latinos given their high rate of use of mobile technology and reliance on it for internet access, as well); and 3) the development of evidence-based approaches to treating underrepresented and vulnerable U.S. subpopulations. Identifiable risks include the possibility that a question on an assessment might be upsetting, or the small chance that confidentiality could somehow be compromised. Therefore, the benefit/risk ratio is high, with potential benefit substantially outweighing any possible risks. As mentioned above, numerous measures will be taken to further minimize the chance of risks occurring, and to prepare for response in the case that anything negative should happen.

Attachment 1

1. Casa Esperanza is the experienced, licensed mental health/substance abuse treatment provider organization.
2. Casa Esperanza is the direct service provider organization that has agreed to participate in the proposed project.
3. BU has provided a signed page Statement of Assurance

Appendix D – Statement of Assurance

As the authorized representative of [insert name of applicant organization]
Boston University, I assure SAMHSA that all participating service provider organizations listed in this application meet the two-year experience requirement and applicable licensing, accreditation, and certification requirements. If this application is within the funding range for a grant award, we will provide the SAMHSA Government Project Officer (GPO) with the following documents. I understand that if this documentation is not received by the GPO within the specified timeframe, the application will be removed from consideration for an award and the funds will be provided to another applicant meeting these requirements.

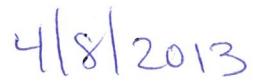
- a letter of commitment from every mental health/substance abuse treatment service provider organization listed in **Attachment 1** of the application that specifies the nature of the participation and the service(s) that will be provided;
- official documentation that all mental health/substance abuse treatment provider organizations participating in the project have been providing relevant services for a minimum of 2 years prior to the date of the application in the area(s) in which services are to be provided. Official documents must definitively establish that the organization has provided relevant services for the last 2 years; and
- official documentation that all mental health/substance abuse treatment provider organizations: 1) comply with all local (city, county) and state requirements for licensing, accreditation, and certification; OR 2) official documentation from the appropriate agency of the applicable state, county, other governmental unit that licensing, accreditation, and certification requirements do not exist.² (Official documentation is a copy of each service provider organization's license, accreditation, and certification. Documentation of accreditation will not be accepted in lieu of an organization's license. A statement by, or letter from, the applicant organization or from a provider organization attesting to compliance with licensing, accreditation and certification or that no licensing, accreditation, certification requirements exist does not constitute adequate documentation.)
- for tribes and tribal organizations only, official documentation that all participating mental health/substance abuse treatment provider

² Tribes and tribal organizations are exempt from these requirements.

organizations: 1) comply with all applicable tribal requirements for licensing, accreditation, and certification; OR 2) documentation from the tribe or other tribal governmental unit that licensing, accreditation, and certification requirements do not exist.



Signature of Authorized Representative
Gretchen Hartigan
Executive Director



Date

SCOPE OF WORK
En Comunicación
Casa Esperanza
Residential Treatment program
for Latina/os with mental health and substance use disorders.

On behalf of Casa Esperanza, Inc., I am pleased to collaborate with the Center for Addictions Research and Services and Dr. Muroff on the proposed program effort, *En Comunicación*.

In order to implement the adapted ACHESS application to reduce relapse and increase medication adherence among our clients, Casa Esperanza agrees to the following:

- Provide program services to a sample of 40 clients annually, for a total of 120 clients over the 3 year grant period.
- Conduct GPRA baseline interviews with 40 clients who have completed residential treatment.
- Conduct local evaluation interviews with these 40 clients using Qualtrics, Survey Monkey electronic forms, mimicking the Casa Esperanza EHR system.
- Work with CARS to conduct 6 month and 12 months follow up interviews and collect all relevant data.
- A Case Manager will be available via smart phones to program participants to set up necessary appointments with health care, mental health care and addiction treatment providers and provide support and crisis intervention, as needed.
- A Peer Recovery Coach will be available for program participants to contact for ongoing support and referrals to community resources.
- Provide assistance to Dr. Muroff to set up the initial contacts for the smart phones
- Ensure IT staff work with CARS staff to respond to any technical difficulties with the smart phone.
- Provide ongoing supervision to all program staff

Sincerely,



Emily Stewart
Executive Director
Casa Esperanza, Inc.

CASA ESPERANZA, INC.
ADMINISTRATION
Familias Unidas Center
245 Eustis Street
Voice/TTY: (617) 445-1123
Fax: (617) 445-1126

CASA ESPERANZA
MEN'S PROGRAM
291 Eustis Street
Voice/TTY: (617) 445-7411
Fax: (617) 541-0844

LATINAS Y NIÑOS CENTER
263 Eustis Street
Voice/TTY: (617) 445-1104
Fax: (617) 541-1882

RELAPSE PREVENTION & OUTPATIENT SERVICES
Familias Unidas Center
245 Eustis Street
Voice/TTY: (617) 445-1123
Fax: (617) 445-1126

SUPPORTIVE HOUSING PROGRAM
Nueva Vida for Men
Dunmore Place for Women
8 Dunmore Street
Voice/TTY: (617) 541-0717
Fax: (617) 318-1148





OFFICE OF RESEARCH AND SPONSORED PROGRAMS

UW Reference # MSN164149

**Boston University
Substance Abuse & Mental Health Services Administration**

PI: Kimberly Johnson

Smartphone Technology to Reduce Relapse Among Latinos with Mental Health and Substance Abuse Disorders

This proposal has been administratively approved on behalf of the Board of Regents of the University of Wisconsin System and is submitted for your consideration. Please keep our office advised as developments occur with regard to this application.

The appropriate programmatic and administrative personnel of each institution involved in this application are aware of the sponsor's grant policy and are prepared to establish the necessary inter-institutional agreement(s) consistent with that policy.

All costs cited conform to established institutional policies and procedures. Our DHHS Negotiated Rate Agreement can be found at <http://www.rsp.wisc.edu/rates/rates.pdf>. Website: <http://www.rsp.wisc.edu/>

A final agreement is contingent upon the successful negotiation of terms and conditions acceptable to the University of Wisconsin-Madison.

Federal Conflict of Interest - The University of Wisconsin is listed in the FDP Clearinghouse as a PHS FCOI Compliant Institution.

We ask that you use the University's above-referenced proposal number in any future correspondence.

Questions regarding administrative matters should be directed to:

PreAward Services by email: preaward@rsp.wisc.edu or by phone: (608) 262-3822.

Questions regarding the technical nature of this application should be directed to:

The Principal Investigator.

A handwritten signature in blue ink that appears to read "Nicolas Novak".

Nicolas Novak, Managing Officer, PreAward Services

April 1, 2013
Date

Measures

1. Addiction Severity Index (ASI)
2. Coping Self-Efficacy Scale
3. The Reinforcement Inventory
4. MOS Social Support Survey

INSTRUCTIONS

- Leave No Blanks - Where appropriate code items:
X = question not answered
N = question not applicable
Use only one character per item.
- Item numbers circled are to be asked at follow-up. Items with an asterisk are cumulative and should be rephrased at follow-up (see Manual).
- Space is provided after sections for additional comments

ADDICTION SEVERITY INDEX**SEVERITY RATINGS**

The severity ratings are interviewer estimates of the patient's need for additional treatment in each area. The scales range from 0 (no treatment necessary) to 9 (treatment needed to intervene in life-threatening situation). Each rating is based upon the patient's history of problem symptoms, present condition and subjective assessment of his treatment needs in a given area. For a detailed description of severity ratings' derivation procedures and conventions, see manual. Note: These severity ratings are optional.

Fifth Edition/1998 Version**SUMMARY OF PATIENTS RATING SCALE**

- 0 - Not at all
- 1 - Slightly
- 2 - Moderately
- 3 - Considerably
- 4 - Extremely

G1. I.D. NUMBER

G2. LAST 4 DIGITS OF SSN

G3. PROGRAM NUMBER

G4. DATE OF ADMISSION

G5. DATE OF INTERVIEW

G6. TIME BEGUN

		:		
		:		

G7. TIME ENDED

		:		
		:		

G8. CLASS:

- 1 - Intake
- 2 - Follow-up

--

G9. CONTACT CODE:

- 1 - In Person
- 2 - Phone

--

G10. GENDER:

- 1 - Male
- 2 - Female

--

G11. INTERVIEWER CODE NUMBER

G12. SPECIAL:

- 1 - Patient terminated
- 2 - Patient refused
- 3 - Patient unable to respond

--

GENERAL INFORMATION

NAME _____

CURRENT ADDRESS _____

G13. GEOGRAPHIC CODE

--	--

G14. How long have you lived at this address? _____
YRS. MOS.

G15. Is this residence owned by you or your family? _____

--

0 - No 1 - Yes

G16. DATE OF BIRTH

G17. RACE

--

- 1 - White (Not of Hispanic Origin)
- 2 - Black (Not of Hispanic Origin)
- 3 - American Indian
- 4 - Alaskan Native
- 5 - Asian or Pacific Islander
- 6 - Hispanic - Mexican
- 7 - Hispanic - Puerto Rican
- 8 - Hispanic - Cuban
- 9 - Other Hispanic

G18. RELIGIOUS PREFERENCE

--

- 1 - Protestant 4 - Islamic
- 2 - Catholic 5 - Other
- 3 - Jewish 6 - None

G19. Have you been in a controlled environment in the past 30 days? _____

--

- 1 - No
- 2 - Jail
- 3 - Alcohol or Drug Treatment
- 4 - Medical Treatment
- 5 - Psychiatric Treatment
- 6 - Other _____

(G20) How many days? _____

--	--

ADDITIONAL TEST RESULTS

G21. Shipley C.Q. _____

--	--	--

G22. Shipley I.Q. _____

--	--	--

G23. Beck Total Score _____

--	--

G24. SCL-90 Total _____

--	--	--

G25. MAST _____

--	--

G26. _____

--	--	--

G27. _____

--	--	--

G28. _____

--	--	--

SEVERITY PROFILE

9									
8									
7									
6									
5									
4									
3									
2									
1									
0									
	PROBLEMS	MEDICAL	EMPSUP	ALCOHOL	DRUG	LEGAL	PAM/SOC	PSYCH	

--	--	--

MEDICAL STATUS

- * M1. How many times in your life have you been hospitalized for medical problems? (Include o.d.'s, d.t.'s, exclude detox.)
M2. How long ago was your last hospitalization for a physical problem YRS. MOS.
- M3. Do you have any chronic medical problems which continue to interfere with your life?
0 - No
1 - Yes _____
Specify _____
- M4. Are you taking any prescribed medication on a regular basis for a physical problem?
0 - No
1 - Yes _____
Specify _____
- M5. Do you receive a pension for a physical disability? (Exclude psychiatric disability.)
0 - No
1 - Yes _____
- M6. How many days have you experienced medical problems in the past 30? Specify _____
- FOR QUESTIONS M7 & M8 PLEASE ASK PATIENT TO USE THE PATIENT'S RATING SCALE*
- M7. How troubled or bothered have you been by these medical problems in the past 30 days?
- M8. How important to you now is treatment for these medical problems?
- INTERVIEWER SEVERITY RATING**
- M9. How would you rate the patient's need for medical treatment?
- CONFIDENCE RATINGS**
- Is the above information significantly distorted by:
- M10. Patient's misrepresentation?
0 - No 1 - Yes
- M11. Patient's inability to understand?
0 - No 1 - Yes

-
- * E1. Education completed (GED = 12 years) YRS. MOS.
- E2. Training or technical education completed MOS.
- E3. Do you have a profession, trade or skill?
0 - No
1 - Yes _____
Specify _____
- E4. Do you have a valid driver's license?
0 - No 1 - Yes
- E5. Do you have an automobile available for use? (Answer No if no valid driver's license.)
0 - No 1 - Yes
- E6. How long was your longest full-time job? YRS. MOS.
- * E7. Usual (or last) occupation.
(Specify in detail)
- E8. Does someone contribute to your support in any way?
0 - No 1 - Yes
- E9. (ONLY IF ITEM E8 IS YES) Does this constitute the majority of your support?
0 - No 1 - Yes
- E10. Usual employment pattern, past 3 years.
1 - full time (40 hrs/wk)
2 - part time (reg. hrs)
3 - part time (irreg., daywork)
4 - student
5 - service
6 - retired/disability
7 - unemployed
8 - in controlled environment
- E11. How many days were you paid for working in the past 30? (include "under the table" work.)
- E12. Employment (net income)
- E13. Unemployment compensation
- E14. DPA
- E15. Pension, benefits or social security
- E16. Mate, family or friends (Money for personal expenses).
- E17. Illegal
- FOR QUESTIONS E20 & E21 PLEASE ASK PATIENT TO USE THE PATIENT'S RATING SCALE*
- E18. How many people depend on you for the majority of their food, shelter, etc.?
- E19. How many days have you experienced employment problems in the past 30?
- INTERVIEWER SEVERITY RATING**
- E20. How troubled or bothered have you been by these employment problems in the past 30 days?
- E21. How important to you now is counseling for these employment problems?
- CONFIDENCE RATINGS**
- Is the above information significantly distorted by:
- E22. How would you rate the patient's need for employment counseling?
- E23. Patient's misrepresentation?
0 - No 1 - Yes
- E24. Patient's inability to understand?
0 - No 1 - Yes

--	--	--	--

PAST 30 LIFETIME USE
Days Yrs. Rt of
adm.

- D1 Alcohol - Any use at all
- D2 Alcohol - To Intoxication
- D3 Heroin
- D4 Methadone
- D5 Other opiates/ analgesics
- D6 Barbiturates
- D7 Other sed/ hyp/tranq.
- D8 Cocaine
- D9 Amphetamines
- D10 Cannabis
- D11 Hallucinogens
- D12 Inhalants

D13 More than one substance per day (Incl. alcohol).

Note: See manual for representative examples for each drug class

* Route of Administration: 1 = Oral, 2 = Nasal
3 = Smoking, 4 = Non IV inj., 5 = IV inj.

DRUG/ALCOHOL USE

D14 Which substance is the major problem? Please code as above or 00-No problem; 15-Alcohol & Drug (Dual addiction); 16-Polydrug; when not clear, ask patient.

--	--

D15. How long was your last period of voluntary abstinence from this major substance?
(00 - never abstinent)

--	--

How many days in the past 30 have you experienced:

D16. How many months ago did this abstinence end?
(00 - still abstinent)

--	--

How many times have you:

- * D17 Had alcohol d.t.'s
- * D18 Overdosed on drugs

How many times in your life have you been treated for:

- * D19 Alcohol Abuse:
- * D20 Drug Abuse:
- * D21 Alcohol
- * D22 Drug

FOR QUESTIONS D28-D31 PLEASE ASK PATIENT TO USE THE PATIENT'S RATING SCALE

How troubled or bothered have you been in the past 30 days by these:

- D28 Alcohol Problems
- D29 Drug Problems

--	--

How important to you now is treatment for these:

- D30 Alcohol Problems
- D31 Drug Problems

--	--

INTERVIEWER SEVERITY RATING

How would you rate the patient's need for treatment for:

- D32 Alcohol Abuse
- D33 Drug Abuse

--	--

CONFIDENCE RATINGS

Is the above information significantly distorted by:

- D34 Patient's misrepresentation?
0 - No 1 - Yes
- D35 Patient's inability to understand?
0 - No 1 - Yes

--	--

Comments

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
--------------------------	--------------------------	--------------------------	--------------------------

L1. Was this admission prompted or suggested by the criminal justice system (judge, probation/parole officer, etc.)

0 - No 1 - Yes

L2. Are you on probation or parole?

0 - No 1 - Yes

How many times in your life have you been arrested and charged with the following:

* L3 - shoplifting/vandalism

<input type="checkbox"/>	<input type="checkbox"/>

* L4 - parole/probation violations

* L5 - drug charges

* L6 - forgery

* L7 - weapons offense

* L8 - burglary, larceny, B & E

* L9 - robbery

* L10 - assault

* L11 - arson

* L12 - rape

* L13 - homicide, manslaughter

* L14 -prostitution

* L15 -contempt of court

* L16 -other

LEGAL STATUS

* L17 How many of these charges resulted in convictions?

How many times in your life have you been charged with the following:

* L18 Disorderly conduct, vagrancy public intoxication

* L19 Driving while intoxicated

* L20 Major driving violations (reckless driving, speeding, no license, etc.)

* L21 How many months were you incarcerated in your life? MOS.

L22. How long was your last incarceration? MOS.

L23. What was it for?
*(Use code 3-16, 18-20.
If multiple charges, code most severe)*

L24. Are you presently awaiting charges, trial or sentence?
0 - No 1 - Yes

L25. What for *(If multiple charges,
use most severe)*.

L26. How many days in the past 30 were you detained or incarcerated?

L27. How many days in the past 30 have you engaged in illegal activities for profit?

FOR QUESTIONS L28 & L29 PLEASE ASK PATIENT TO USE THE PATIENT'S RATING SCALE

L28. How serious do you feel your present legal problems are?
(Exclude civil problems)

L29. How important to you now is counseling or referral for these legal problems?

INTERVIEWER SEVERITY RATING

L30. How would you rate the patient's need for legal services or counseling?

CONFIDENCE RATINGS

Is the above information significantly distorted by:

L31. Patient's misrepresentation?
0 - No 1 - Yes

L32. Patient's inability to understand?
0 - No 1 - Yes

Comments

--	--	--	--

FAMILY/SOCIAL RELATIONSHIPS

(F1) Marital Status

- | | |
|---------------|-------------------|
| 1 - Married | 4 - Separated |
| 2 - Remarried | 5 - Divorced |
| 3 - Widowed | 6 - Never Married |

(F2) How long have you been in this marital status? YRS. MOS.
(If never married, since age 18).

(F3.) Are you satisfied with this situation?
0 - No
1 - Indifferent
2 - Yes

* (F4.) Usual living arrangements (past 3 yr.)
1 - With sexual partner and children
2 - With sexual partner alone
3 - With children alone
4 - With parents
5 - With family
6 - With friends
7 - Alone
8 - Controlled environment
9 - No stable arrangements

(F5.) How long have you lived in these arrangements. YRS. MOS.
(If with parents or family, since age 18).

(F6.) Are you satisfied with these living arrangements?
0 - No
1 - Indifferent
2 - Yes

Do you live with anyone who:
0 = No 1 = Yes

(F7.) Has a current alcohol problem?

(F8.) Uses non-prescribed drugs?

(F9.) With whom do you spend most of your free time:
1 - Family 3 - Alone
2 - Friends

(F10) Are you satisfied with spending your free time this way?
0 - No 1 - Indifferent 2 - Yes

(F11) How many close friends do you have?

Direction for F12-F26: Place "0" in relative category where the answer is clearly no for all relatives in the category; "1" where the answer is clearly yes for any relative within the category; "X" where the answer is uncertain or "I don't know" and "N" where there never was a relative from that category.

Would you say you have had close, long lasting, personal relationships with any of the following people in your life:

- | | |
|----------------------------|--------------------------|
| F12. Mother | <input type="checkbox"/> |
| F13. Father | <input type="checkbox"/> |
| F14. Brothers/Sisters | <input type="checkbox"/> |
| F15. Sexual Partner/Spouse | <input type="checkbox"/> |
| F16. Children | <input type="checkbox"/> |
| F17. Friends | <input type="checkbox"/> |

Have you had significant periods in which you have experienced serious problems getting along with:

- | | |
|-------------------------------|---|
| PAST 30 DAYS | IN YOUR LIFE |
| 0 - No 1 - Yes | <input type="checkbox"/> <input type="checkbox"/> |
| F18. Mother | <input type="checkbox"/> |
| F19. Father | <input type="checkbox"/> |
| F20. Brothers/Sisters | <input type="checkbox"/> |
| F21. Sexual partner/spouse | <input type="checkbox"/> |
| F22. Children | <input type="checkbox"/> |
| F23. Other significant family | <input type="checkbox"/> |
| F24. Close friends | <input type="checkbox"/> |
| F25. Neighbors | <input type="checkbox"/> |
| F26. Co-Workers | <input type="checkbox"/> |

Did any of these people (F18-F26) abuse you: 0 = No, 1 = Yes

F27. Emotionally (make you feel bad through harsh words)?

F28. Physically (cause you physical harm)?

F29. Sexually (force sexual advances or sexual acts)?

How many days in the past 30 have you had serious conflicts:

(F30) with your family?

(F31) with other people? (excluding family)

FOR QUESTIONS F32-F35 PLEASE ASK PATIENT TO USE THE PATIENT'S RATING SCALE

How troubled or bothered have you been in the past 30 days by these:

(F32) Family problems

(F33) Social problems

How important to you now is treatment or counseling for these:

(F34) Family problems

(F35) Social problems

INTERVIEWER SEVERITY RATING

(F36) How would you rate the patient's need for family and/or social counseling?

CONFIDENCE RATINGS

Is the above information significantly distorted by:

(F37) Patient's misrepresentation?

0 - No 1 - Yes

(F38) Patient's inability to understand?

0 - No 1 - Yes

Comments

--	--	--	--

PSYCHIATRIC STATUS

How many times have you been treated for any psychological or emotional problems?

* P1 In a hospital

* P2 As an Opt. or Priv. patient

P12 How many days in the past 30 have you experienced these psychological or emotional problems?

--	--

INTERVIEWER SEVERITY RATING

P21 How would you rate the patient's need for psychiatric/psychological treatment?

--

CONFIDENCE RATINGS

Is the above information significantly distorted by:

P22 Patient's misrepresentation?
0 - No 1 - Yes

--

P23 Patient's inability to understand?
0 - No 1 - Yes

--

P3. Do you receive a pension for a psychiatric disability?

--

0 - No 1 - Yes

Have you had a significant period, (that was not a direct result of drug/alcohol use), in which you have:

0 - No 1 - Yes

PAST 30 IN
DAYS YOUR
LIFE

P13 How much have you been troubled or bothered by these psychological or emotional problems in the past 30 days?

--

P14 How important to you now is treatment for these psychological problems?

--

*THE FOLLOWING ITEMS ARE TO BE
COMPLETED BY THE INTERVIEWER*

At the time of the interview, is patient:

0 - No 1 - Yes

P15 Obviously depressed/withdrawn

--

P16 Obviously hostile

--

P17 Obviously anxious/nervous

--

P18 Having trouble with reality testing thought disorders, paranoid thinking

--

P19 Having trouble comprehending, concentrating, remembering.

--

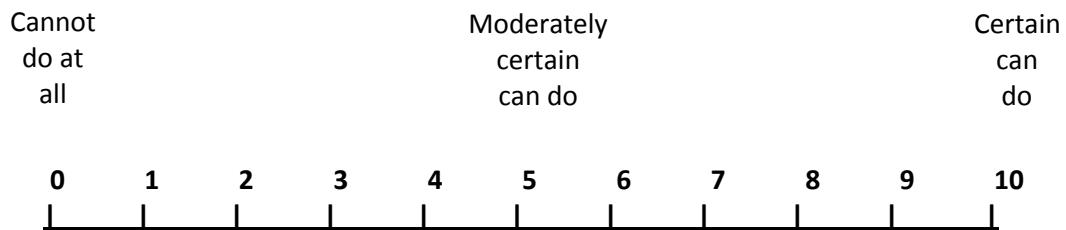
P20 Having suicidal thoughts

--

Comments

- P4 Experienced serious depression
- P5 Experienced serious anxiety or tension
- P6 Experienced hallucinations
- P7 Experienced trouble understanding, concentrating or remembering
- P8 Experienced trouble controlling violent behavior
- P9 Experienced serious thoughts of suicide
- P10 Attempted suicide
- P11 Been prescribed medication for any psychological emotional problem

Coping Self-Efficacy Scale



Behavior	Score	N/A
1. Break an upsetting problem down into smaller parts.	_____	-99
2. Sort out what can be changed, and what cannot be changed.	_____	-99
3. Make a plan of action and follow it when confronted with a problem.	_____	-99
4. Leave options open when things get stressful.	_____	-99
5. Think about one part of the problem at a time.	_____	-99
6. Find solutions to your most difficult problems.	_____	-99
7. Make unpleasant thoughts go away.	_____	-99
8. Take your mind off unpleasant thoughts.	_____	-99
9. Stop yourself from being upset by unpleasant thoughts.	_____	-99
10. Keep from feeling sad.	_____	-99
11. Get friends to help you with the things you need.	_____	-99
12. Get emotional support from friends and family.	_____	-99
13. Make new friends.	_____	-99

Participants were asked, 'When things aren't going well for you, or when you're having problems, how confident or certain are you that you can do the following': They were then asked to rate on an 11-point scale the extent to which they believe they could perform behaviours important to adaptive coping, such as 'sort out what can be changed, and what cannot be changed', 'break an upsetting problem down'

into smaller parts', 'look for something good in a negative situation', and 'get emotional support from friends and family'. Anchor points on the scale were 0 ('cannot do at all'), 5 ('moderately certain can do') and 10 ('certain can do'). An overall CSE score was created by summing the item ratings²

Because most of the measures are summated rating scale scores, our standard scoring rule was that individuals must answer at least 80% of the applicable items; otherwise their summary score was set to missing for that scale. For a given scale, we estimated an individual's score for the missing item(s) by adding in their mean for the items that they answered for each item that they skipped, resulting in a 'corrected sum'.

(notes: "13-item reduced form of the CSE scale with three factors: Use problem-focused coping (6 items, a α .91), stop unpleasant emotions and thoughts (4 items, a α .91), and get support from friends and family (3 items, a α .80)" ... "The CSE scale provides a measure of a person's perceived ability to cope effectively with life challenges, as well as a way to assess changes in CSE over time in intervention research."

Preferred Items and Experiences Questionnaire (PIEQ) for Adolescents and Adults

This questionnaire is designed to find out how much you like or get pleasure from various *items and experiences* in your life. The questionnaire contains lists of items and experiences many people enjoy, and each list has spaces in which you *may add other things* you like that the list left out. Assume that each type of item or experience is *about as good as it could get* for you. For example, if you like "sports or hobby supplies" only a little, assume that the item is one that you would choose at a store if you would get it for free.

1. General items:	Not at all	A little	A fair amount	A lot	Very much
New clothes	0	1	2	3	4
Sports or hobby supplies	0	1	2	3	4
Games (including software)	0	1	2	3	4
Tools or appliances	0	1	2	3	4
Jewelry	0	1	2	3	4
Beauty supplies	0	1	2	3	4
Music recordings	0	1	2	3	4
Video recordings	0	1	2	3	4
Other:	0	1	2	3	4
Other:	0	1	2	3	4

2. Snack foods:	Not at all	A little	A fair amount	A lot	Very much
Ice cream	0	1	2	3	4
Candy	0	1	2	3	4
Fruit	0	1	2	3	4
Pastry	0	1	2	3	4
Cookies	0	1	2	3	4
Popcorn or pretzels	0	1	2	3	4
Potato chips/nachos, etc.	0	1	2	3	4
Pizza	0	1	2	3	4
Other:	0	1	2	3	4
Other:	0	1	2	3	4

3. Beverages:	Not at all	A little	A fair amount	A lot	Very much
Milk	0	1	2	3	4
Soft drinks	0	1	2	3	4

Shakes	0	1	2	3	4
Juices	0	1	2	3	4
Coffee	0	1	2	3	4
Tea (iced or hot)	0	1	2	3	4
Water	0	1	2	3	4
Other:	0	1	2	3	4
Other:	0	1	2	3	4

4. Outcomes for work, chores, or skills at work, school, or home:	Not at all	A little	A fair amount	A lot	Very much
Money	0	1	2	3	4
Praise/feedback/grades	0	1	2	3	4
Input in decisions	0	1	2	3	4
Flexible duties	0	1	2	3	4
Special privileges	0	1	2	3	4
Other:	0	1	2	3	4
Other:	0	1	2	3	4

5. Friends'/relatives' actions toward you:	Not at all	A little	A fair amount	A lot	Very much
<i>Praising your:</i>					
appearance	0	1	2	3	4
abilities	0	1	2	3	4
personality	0	1	2	3	4
Giving affection	0	1	2	3	4
Socializing with you	0	1	2	3	4
<i>Inviting you for:</i>					
a date	0	1	2	3	4
a party or dinner	0	1	2	3	4
Other:	0	1	2	3	4
Other:	0	1	2	3	4

6. Leisure activities (active participation):	Not at all	A little	A fair amount	A lot	Very much
Hobbies/arts/crafts	0	1	2	3	4
Gardening	0	1	2	3	4
Going to museums	0	1	2	3	4
Hiking/camping	0	1	2	3	4

Playing athletics	0	1	2	3	4
Exercising	0	1	2	3	4
Playing board/table games	0	1	2	3	4
Playing computer games	0	1	2	3	4
Playing musical instrument	0	1	2	3	4
Reading	0	1	2	3	4
Shopping	0	1	2	3	4
Talking on phone to friends	0	1	2	3	4
Using Internet/e-mail	0	1	2	3	4
Spending time with friends	0	1	2	3	4
Other:	0	1	2	3	4
Other:	0	1	2	3	4

7. Leisure activities (inactive/passive):	Not at all	A little	A fair amount	A lot	Very much
Watching TV	0	1	2	3	4
Watching movies	0	1	2	3	4
<i>Attending performances of:</i>					
sports	0	1	2	3	4
music	0	1	2	3	4
drama	0	1	2	3	4
dance	0	1	2	3	4
Listening to music	0	1	2	3	4
Lying in sun	0	1	2	3	4
Taking leisurely bath	0	1	2	3	4
Taking a nap/sleeping	0	1	2	3	4
Other:	0	1	2	3	4
Other:	0	1	2	3	4

Sarafino, Graham / ASSESSING REINFORCER PREFERENCES 845

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MOS Social Support Survey

People sometimes look to others for companionship, assistance, or other types of support. How often is each of the following kinds of support available to you if you need it? Circle one number on each line.

	None of the time	A little of the time	Some of the time	Most of the time	All of the time
Emotional/informational support					
Someone you can count on to listen to you when you need to talk	1	2	3	4	5
Someone to give you information to help you understand a situation	1	2	3	4	5
Someone to give you good advice about a crisis	1	2	3	4	5
Someone to confide in or talk to about yourself or your problems	1	2	3	4	5
Some whose advice you really want	1	2	3	4	5
Someone to share your most private worries and fears with	1	2	3	4	5
Someone to turn to for suggestions about how to deal with a personal problem	1	2	3	4	5
Someone who understands your problems	1	2	3	4	5
Tangible support					
Someone to help you if you were confined to bed	1	2	3	4	5
Someone to take you to the doctor if you needed it	1	2	3	4	5
Someone to prepare your meals If you were unable to do it yourself	1	2	3	4	5
Someone to help with daily chores if you were sick	1	2	3	4	5
Affectionate support					
Someone who shows you love and affection	1	2	3	4	5
Someone to love and make you feel wanted	1	2	3	4	5
Someone who hugs you	1	2	3	4	5

	None of the time	A little of the time	Some of the time	Most of the time	All of the time
Positive social interaction					
Someone to have a good time with	1	2	3	4	5
Someone to get together with for relaxation	1	2	3	4	5
Someone to do something enjoyable with	1	2	3	4	5
Additional item					
Someone to do things with to help you get your mind off things	1	2	3	4	5

**Smartphone Technology to Reduce Relapse Among Latinos with
Mental Health and Substance Abuse Disorders**
Dr. Jordana Muroff, Principal Investigator
Boston University School of Social Work

You are invited to participate in the Smartphone Technology program of services provided by Casa Esperanza, Inc., and a study about your participation in Smartphone Technology conducted by Boston University School of Social Work.

Your participation in Smartphone Technology services and questions about your participation are *entirely voluntary*.

Please read the information below and ask any questions you may have before deciding whether or not to participate. We will also read this consent aloud to you. We are inviting you to participate in the services and to answer questions about your participation because we feel that your experiences in recovery, can contribute much to our understanding and knowledge about substance use and mental health recovery among Latino/as in your community.

Purpose of the Smartphone Technology program and the questions we will ask about your participation

The purpose of the program is to offer 24/7 Smartphone technology support to Latino/a individuals with substance abuse and mental health problems who are being discharged from residential treatment at Casa Esperanza, Inc. The purpose of the questions we will ask you about your participation in the Smartphone Technology program is to evaluate how well the Smartphone Technology program works and how well the smartphone technology works in helping Latino/a individuals stay in recovery.

Procedures

- Approximately 120 individuals will receive services and answer questions about their participation.
- Participants will be randomly selected individuals who have completed Casa Esperanza residential treatment program who are being discharged. Random selection means that clients will be randomly assigned to one of two groups: one group of clients will be invited to participate in the Smartphone Technology program and the other group of clients will be offered the usual Casa Esperanza recovery treatment options.
- Two weeks before you complete your residential treatment you may be invited to participate in the Smartphone Technology program. If you are interested you will receive information about Smartphone Technology while you are still in the residential program: you will receive a smartphone and training on using the Smartphone Technology application for the smart phone. When you leave the residential treatment program, you will be asked to keep the smartphone and use the Smartphone Technology application as directed for 12 months.
- If you decide to participate you will have:

- access to a Smartphone and A-CHESS application, which you will receive when you are discharged from the residential treatment program
- aftercare planning and relapse and recidivism prevention services including peer support services;
- supported referrals to additional mental health services, and ongoing integrated substance abuse counseling and case coordination;
- follow-up interviews to answer questions about your participation in Smartphone Technology.
- Participation is in the program and answering questions is voluntary. You may withdraw at any time from the services or the data collection (answering questions) without penalty. You do not have to answer questions you do not wish to answer.
- The program of services and the data collection will last 12 months and you will be asked to complete an interview at three time points - when you leave the residential treatment program, 6 months later, and 6 months after that.
- If you wish to participate, you will be asked to sign this statement of informed consent.

Benefits of Participation

The major benefit of participation is that you will receive 24/7 support via a Smartphone to help you with recovery.

Potential risks.

Identifiable risks include the possibility a question during the interviews might be upsetting, that using the Smartphone Technology will be intrusive or bothersome, or the small chance that confidentiality could somehow be compromised.

Casa Esperanza staff will be trained to help you with Smartphone Technology and will support you in all aspects of your recovery.

Protection of Privacy

We will strive to protect your information and privacy. Information collected from you and from your smartphone will be kept confidential in several ways. Electronic data will not have your real name on it – we will ask you to choose a “username” and we will link that to a number and answers to questionnaires and other information will use that number and not your real name. No identifying information will appear in any publication or report and it will not be possible to identify you through written materials (e.g., publications or reports).

We will maintain a strict security system to prevent unauthorized access to the data. All precautions will be taken so that only Dr. Muroff and members of her team will have physical access to the computers where the data will be stored until downloaded to the SSW server. The data will be stored on the SSW file server with access restricted to Dr. Muroff and her team, using strong passwords, behind the BU campus Firewall. All data will be destroyed after analysis is complete.

Participation and Withdrawal

- You do not have to participate in the Smartphone Technology program or answer any questions about your recovery.

- You do not have to answer any question that you do not wish to answer.
- If you decide not to participate, or if you decide to stop once you have started the study, you will be asked to return the smartphone and you will not receive Smartphone Technology recovery services from Casa Esperanza. However, you will still receive the usual recovery services that Casa Esperanza provides to clients who complete residential treatment.

Incentives

If you are eligible and decide to participate in Smartphone Technology you will be given a \$20 gift card when you complete the 6-month and 12-month follow-up interviews in appreciation of your time and energy.

If you have questions or concerns:

Please contact the Principal Investigator of Smartphone Technology, Dr. Jordana Muroff with any questions or concerns you may have about this project (617-358-4661, jmuroff@bu.edu). Should you have any questions about your personal rights as a participant in Smartphone Technology, please contact Boston University's Institutional Review Board (617-358-6115).

Thank you for your time and your participation in this project.
Sincerely,

Jordana Muroff, LICSW, PhD

If you agree to participate in this research project, please sign and date below.

Full Name (please print)

Signature

Date

Signature of Person Obtaining Consent

Full Name (please print)

Signature

Date

Internal Revenue Service

Department of the Treasury

P. O. Box 2508
Cincinnati, OH 45201

Date: December 24, 2002

Boston University Trustees of
Boston University
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881 Commonwealth Avenue
Boston, MA 02215-1303

Person to Contact:

Carol Kraft - #31-01135
Customer Service Specialist

Toll Free Telephone Number:

877-829-5500

8:00 a.m. to 6:30 p.m. EST

Fax Number:

513-263-3756

Federal Identification Number:

04-2103547

Dear Sir:

This is in response to your request by letter on December 9, 2002, for affirmation of your organization's exempt status.

In October 1937, we issued a letter that recognized your organization as exempt from federal income tax under section 501(c)(3) of the Internal Revenue Code. That letter is still in effect.

Based on information submitted with the application, we classified your organization as one that is not a private foundation within the meaning of section 509(a) of the Code because it is an organization described in sections 509(a)(1) and 170(b)(1)(A)(ii). That classification was based on the assumption that your organization's operations would continue as stated in the application. If your organization's purposes, character, method of operations, or sources of support have changed, please let us know so we can consider the effect of the change on the organization's exempt status and foundation status.

Revenue Procedure 75-50, published in Cumulative Bulletin 1975-2 on page 587, sets forth guidelines and record keeping requirements for determining whether private schools have racially nondiscriminatory policies as to students. Your organization must comply with this revenue procedure to maintain its tax-exempt status.

Your organization is required to file Form 990, Return of Organization Exempt from Income Tax, only if its gross receipts each year are normally more than \$25,000. If a return is required, it must be filed by the 15th day of the fifth month after the end of the organization's annual accounting period. The law imposes a penalty of \$20 a day, up to a maximum of \$10,000, when a return is filed late, unless there is reasonable cause for the delay.

All exempt organizations (unless specifically excluded) are liable for taxes under the Federal Insurance Contributions Act (social security taxes) on remuneration of \$100 or more paid each employee during a calendar year. Your organization is not liable for the tax imposed under the Federal Unemployment Tax Act (FUTA).

Organizations that are not private foundations are not subject to the excise taxes under Chapter 42 of the Code. However, they are not automatically exempt from other federal excise taxes.

Boston University Trustees of Boston University
04-2103547

Donors may deduct contributions to your organization as provided in section 170 of the Code. Bequests, legacies, devises, transfers, or gifts to your organization or for its use are deductible for federal estate and gift tax purposes if they meet the applicable provisions of sections 2055, 2106, and 2522 of the Code.

Your organization is not required to file federal income tax returns unless it is subject to the tax on unrelated business income under section 511 of the Code. If your organization is subject to this tax, it must file an income tax return on the Form 990-T, Exempt Organization Business Income Tax Return. In this letter, we are not determining whether any of your organization's present or proposed activities are unrelated trade or business as defined in section 513 of the Code.

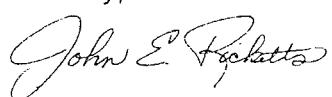
The law requires you to make your organization's annual return available for public inspection without charge for three years after the due date of the return. If your organization had a copy of its application for recognition of exemption on July 15, 1987, it is also required to make available for public inspection a copy of the exemption application, any supporting documents and the exemption letter to any individual who requests such documents in person or in writing. You can charge only a reasonable fee for reproduction and actual postage costs for the copied materials. The law does not require you to provide copies of public inspection documents that are widely available, such as by posting them on the Internet (World Wide Web). You may be liable for a penalty of \$20 a day for each day you do not make these documents available for public inspection (up to a maximum of \$10,000 in the case of an annual return).

Because this letter could help resolve any questions about your organization's exempt status and foundation status, you should keep it with the organization's permanent records.

If you have any questions, please call us at the telephone number shown in the heading of this letter.

This letter affirms your organization's exempt status.

Sincerely,



John E. Ricketts, Director, TE/GE
Customer Account Services

Project/Performance Site Location(s)

Project/Performance Site Primary Location

I am submitting an application as an individual, and not on behalf of a company, state, local or tribal government, academia, or other type of organization.

Organization Name: The Trustees of Boston University

DUNS Number: 0494352660000

* Street1: 881 Commonwealth Avenue

Street2:

* City: Boston

County:

* State: MA: Massachusetts

Province:

* Country: USA: UNITED STATES

* ZIP / Postal Code: 02215-1300

* Project/ Performance Site Congressional District: MA-007

Project/Performance Site Location 1

I am submitting an application as an individual, and not on behalf of a company, state, local or tribal government, academia, or other type of organization.

Organization Name: The Board of Regents of the University of Wisconsin System

DUNS Number: 1612021220000

* Street1: 21 North Park Street, Suite 6401

Street2:

* City: Madison

County:

* State: WI: Wisconsin

Province:

* Country: USA: UNITED STATES

* ZIP / Postal Code: 53715-1218

* Project/ Performance Site Congressional District: WI-002

Project/Performance Site Location 2

I am submitting an application as an individual, and not on behalf of a company, state, local or tribal government, academia, or other type of organization.

Organization Name: Casa Esperanza

DUNS Number: 1829542970000

* Street1: 245 Eustis Street

Street2:

* City: Roxbury

County:

* State: MA: Massachusetts

Province:

* Country: USA: UNITED STATES

* ZIP / Postal Code: 02119-2826

* Project/ Performance Site Congressional District: MA-007

Additional Location(s)

Add Attachment

Delete Attachment

View Attachment

DISCLOSURE OF LOBBYING ACTIVITIES

Complete this form to disclose lobbying activities pursuant to 31 U.S.C.1352

Approved by OMB
0348-0046

1. * Type of Federal Action: <input type="checkbox"/> a. contract <input checked="" type="checkbox"/> b. grant <input type="checkbox"/> c. cooperative agreement <input type="checkbox"/> d. loan <input type="checkbox"/> e. loan guarantee <input type="checkbox"/> f. loan insurance	2. * Status of Federal Action: <input type="checkbox"/> a. bid/offer/application <input checked="" type="checkbox"/> b. initial award <input type="checkbox"/> c. post-award	3. * Report Type: <input checked="" type="checkbox"/> a. initial filing <input type="checkbox"/> b. material change
4. Name and Address of Reporting Entity: <input checked="" type="checkbox"/> Prime <input type="checkbox"/> SubAwardee * Name: <input type="text" value="N/A"/> * Street 1: <input type="text" value="N/A"/> Street 2: <input type="text"/> * City: <input type="text" value="N/A"/> State: <input type="text"/> Zip: <input type="text"/> Congressional District, if known: <input type="text"/>		
5. If Reporting Entity in No.4 is Subawardee, Enter Name and Address of Prime: 		
6. * Federal Department/Agency: <input type="text" value="N/A"/>	7. * Federal Program Name/Description: <input type="text" value="Substance Abuse and Mental Health Services_Projects of Regional and National Significance"/> CFDA Number, if applicable: <input type="text" value="93.243"/>	
8. Federal Action Number, if known: <input type="text"/>	9. Award Amount, if known: \$ <input type="text"/>	
10. a. Name and Address of Lobbying Registrant: Prefix <input type="text"/> * First Name <input type="text" value="N/A"/> Middle Name <input type="text"/> * Last Name <input type="text" value="N/A"/> Suffix <input type="text"/> * Street 1 <input type="text"/> Street 2 <input type="text"/> * City <input type="text"/> State <input type="text"/> Zip <input type="text"/>		
b. Individual Performing Services (including address if different from No. 10a) Prefix <input type="text"/> * First Name <input type="text" value="N/A"/> Middle Name <input type="text"/> * Last Name <input type="text" value="N/A"/> Suffix <input type="text"/> * Street 1 <input type="text"/> Street 2 <input type="text"/> * City <input type="text"/> State <input type="text"/> Zip <input type="text"/>		
11. Information requested through this form is authorized by title 31 U.S.C. section 1352. This disclosure of lobbying activities is a material representation of fact upon which reliance was placed by the tier above when the transaction was made or entered into. This disclosure is required pursuant to 31 U.S.C. 1352. This information will be reported to the Congress semi-annually and will be available for public inspection. Any person who fails to file the required disclosure shall be subject to a civil penalty of not less than \$10,000 and not more than \$100,000 for each such failure.		
* Signature: <input type="text" value="Jennifer Marron"/> * Name: Prefix <input type="text"/> * First Name <input type="text" value="N/A"/> Middle Name <input type="text"/> * Last Name <input type="text" value="N/A"/> Suffix <input type="text"/> Title: <input type="text"/> Telephone No.: <input type="text"/> Date: <input type="text" value="04/09/2013"/>		
Federal Use Only:		Authorized for Local Reproduction Standard Form - LLL (Rev. 7-97)

CHECKLIST

NOTE TO APPLICANT: This form must be completed and submitted with the original of your application. Be sure to complete each page of this form. Check the appropriate boxes and provide the information requested. This form should be attached as the last pages of the signed original of the application.

Type of Application: New Noncompeting Continuation Competing Continuation Supplemental

PART A: The following checklist is provided to assure that proper signatures, assurances, and certifications have been submitted.

1. Proper Signature and Date on the SF 424 (FACE PAGE)
2. If your organization currently has on file with HHS the following assurances, please identify which have been filed by indicating the date of such filing on the line provided. (All four have been consolidated into a single form, HHS 690)

<input checked="" type="checkbox"/> Civil Rights Assurance (45 CFR 80)	<input type="text" value="07/27/1998"/>
<input checked="" type="checkbox"/> Assurance Concerning the Handicapped (45 CFR 84)	<input type="text" value="07/27/1998"/>
<input checked="" type="checkbox"/> Assurance Concerning Sex Discrimination (45 CFR 86)	<input type="text" value="07/27/1998"/>
<input checked="" type="checkbox"/> Assurance Concerning Age Discrimination (45 CFR 90 & 45 CFR 91)	<input type="text" value="07/27/1998"/>

3. Human Subjects Certification, when applicable (45 CFR 46)

Included NOT Applicable

PART B: This part is provided to assure that pertinent information has been addressed and included in the application.

1. Has a Public Health System Impact Statement for the proposed program/project been completed and distributed as required?
2. Has the appropriate box been checked on the SF-424 (FACE PAGE) regarding intergovernmental review under E.O. 12372 ? (45 CFR Part 100)
3. Has the entire proposed project period been identified on the SF-424 (FACE PAGE)?.....
4. Have biographical sketch(es) with job description(s) been provided, when required?.....
5. Has the "Budget Information" page, SF-424A (Non-Construction Programs) or SF-424C (Construction Programs), been completed and included?
6. Has the 12 month narrative budget justification been provided?
7. Has the budget for the entire proposed project period with sufficient detail been provided?
8. For a Supplemental application, does the narrative budget justification address only the additional funds requested?
9. For Competing Continuation and Supplemental applications, has a progress report been included?

YES NOT Applicable

PART C: In the spaces provided below, please provide the requested information.

Business Official to be notified if an award is to be made

Prefix: <input type="text" value=""/>	First Name: <input type="text" value="Jennifer"/>	Middle Name: <input type="text" value=""/>
Last Name: <input type="text" value="Marron"/>	Suffix: <input type="text" value=""/>	
Title: <input type="text" value="Associate Director"/>		
Organization: <input type="text" value="Trustees of Boston University"/>		
Street1: <input type="text" value="881 Commonwealth Avenue"/>		
Street2: <input type="text" value=""/>		
City: <input type="text" value="Boston"/>		
State: <input type="text" value="MA: Massachusetts"/>	ZIP / Postal Code: <input type="text" value="02215"/>	ZIP / Postal Code4: <input type="text" value="1300"/>
E-mail Address: <input type="text" value="ospera@bu.edu"/>		
Telephone Number: <input type="text" value="617-353-4365"/>	Fax Number: <input type="text" value="617-353-6660"/>	

Program Director/Project Director/Principal Investigator designated to direct the proposed project or program.

Prefix: <input type="text" value="Dr."/>	First Name: <input type="text" value="Jordana"/>	Middle Name: <input type="text" value=""/>
Last Name: <input type="text" value="Muroff"/>	Suffix: <input type="text" value=""/>	
Title: <input type="text" value="Assistant Professor"/>		
Organization: <input type="text" value="Boston University School of Social Work"/>		
Street1: <input type="text" value="264 Bay State Road"/>		
Street2: <input type="text" value=""/>		
City: <input type="text" value="Boston"/>		
State: <input type="text" value="MA: Massachusetts"/>	ZIP / Postal Code: <input type="text" value="02215"/>	ZIP / Postal Code4: <input type="text" value="1300"/>
E-mail Address: <input type="text" value="jmuroff@bu.edu"/>		
Telephone Number: <input type="text" value="617-358-4661"/>	Fax Number: <input type="text" value="617-353-5612"/>	

PART D: A private, nonprofit organization must include evidence of its nonprofit status with the application. Any of the following is acceptable evidence. Check the appropriate box or complete the "Previously Filed" section, whichever is applicable.

- (a) A reference to the organization's listing in the Internal Revenue Service's (IRS) most recent list of tax-exempt organizations described in section 501(c)(3) of the IRS Code.
- (b) A copy of a currently valid Internal Revenue Service Tax exemption certificate.
- (c) A statement from a State taxing body, State Attorney General, or other appropriate State official certifying that the applicant organization has a nonprofit status and that none of the net earnings accrue to any private shareholders or individuals.
- (d) A certified copy of the organization's certificate of incorporation or similar document if it clearly establishes the nonprofit status of the organization.
- (e) Any of the above proof for a State or national parent organization, and a statement signed by the parent organization that the applicant organization is a local nonprofit affiliate.

If an applicant has evidence of current nonprofit status on file with an agency of HHS, it will not be necessary to file similar papers again, but the place and date of filing must be indicated.

Previously Filed with: (Agency)

on (Date)

INVENTIONS

If this is an application for continued support, include: (1) the report of inventions conceived or reduced to practice required by the terms and conditions of the grant; or (2) a list of inventions already reported, or (3) a negative certification.

EXECUTIVE ORDER 12372

Effective September 30, 1983, Executive Order 12372 (Intergovernmental Review of Federal Programs) directed OMB to abolish OMB Circular A-95 and establish a new process for consulting with State and local elected officials on proposed Federal financial assistance. The Department of Health and Human Services implemented the Executive Order through regulations at 45 CFR Part 100 (Inter-governmental Review of Department of Health and Human Services Programs and Activities). The objectives of the Executive Order are to (1) increase State flexibility to design a consultation process and select the programs it wishes to review, (2) increase the ability of State and local elected officials to influence Federal decisions and (3) compel Federal officials to be responsive to State concerns, or explain the reasons.

The regulations at 45 CFR Part 100 were published in the Federal Register on June 24, 1983, along with a notice identifying the

Department's programs that are subject to the provisions of Executive Order 12372. Information regarding HHS programs subject to Executive Order 12372 is also available from the appropriate awarding office.

States participating in this program establish State Single Points of Contact (SPOCs) to coordinate and manage the review and comment on proposed Federal financial assistance. Applicants should contact the Governor's office for information regarding the SPOC, programs selected for review, and the consultation (review) process designed by their State.

Applicants are to certify on the face page of the SF-424 (attached) whether the request is for a program covered under Executive Order 12372 and, where appropriate, whether the State has been given an opportunity to comment.

BY SIGNING THE FACE PAGE OF THIS APPLICATION, THE APPLICANT ORGANIZATION CERTIFIES THAT THE STATEMENTS IN THIS APPLICATION ARE TRUE, COMPLETE, AND ACCURATE TO THE BEST OF THE SIGNER'S KNOWLEDGE, AND THE ORGANIZATION ACCEPTS THE OBLIGATION TO COMPLY WITH U.S. DEPARTMENT OF HEALTH AND HUMAN SERVICES' TERMS AND CONDITIONS IF AN AWARD IS MADE AS A RESULT OF THE APPLICATION. THE SIGNER IS ALSO AWARE THAT ANY FALSE, FICTITIOUS, OR FRAUDULENT STATEMENTS OR CLAIMS MAY SUBJECT THE SIGNER TO CRIMINAL, CIVIL, OR ADMINISTRATIVE PENALTIES.

THE FOLLOWING ASSURANCES/CERTIFICATIONS ARE MADE AND VERIFIED BY THE SIGNATURE OF THE OFFICIAL SIGNING FOR THE APPLICANT ORGANIZATION ON THE FACE PAGE OF THE APPLICATION:

Civil Rights – Title VI of the Civil Rights Act of 1964 (P.L. 88-352), as amended, and all the requirements imposed by or pursuant to the HHS regulation (45 CFR part 80).

Handicapped Individuals – Section 504 of the Rehabilitation Act of 1973 (P.L. 93-112), as amended, and all requirements imposed by or pursuant to the HHS regulation (45 CFR part 84).

Sex Discrimination – Title IX of the Educational Amendments of 1972 (P.L. 92-318), as amended, and all requirements imposed by or pursuant to the HHS regulation (45 CFR part 86).

Age Discrimination – The Age Discrimination Act of 1975 (P.L. 94-135), as amended, and all requirements imposed by or pursuant to the HHS regulation (45 CFR part 91).

Debarment and Suspension – Title 2 CFR part 376.

Certification Regarding Drug-Free Workplace Requirements – Title 45 CFR part 82.

Certification Regarding Lobbying – Title 32, United States Code, Section 1352 and all requirements imposed by or pursuant to the HHS regulation (45 CFR part 93).

Environmental Tobacco Smoke – Public Law 103-227.

Program Fraud Civil Remedies Act (PFCRA)