

University of California, San Francisco
CURRICULUM VITAE

Name: Karen Hope Seal, MD, MPH

Position: Professor In Residence, Step 1
Departments of Medicine and Psychiatry
School of Medicine

Address: Box VAMC
4150 Clement St.
University of California, San Francisco
San Francisco, CA 94121
Voice: 221-4810
Fax: 379-5573
Email: karen.seal@ucsf.edu

EDUCATION

1981 - 1985	Brown University	B.S.	Sigma Xi, Neuroscience
1989 - 1994	Stanford University School of Medicine	M.D	Medicine
1994 - 1995	University of California, San Francisco	Intern	Medicine
1995 - 1997	University of California, San Francisco	Resident	Medicine
1997 - 2000	University of California, San Francisco	Fellow	Center for AIDS Prevention Studies
1998 - 1998	University of California, Berkeley	MPH	Epidemiology

LICENSES, CERTIFICATION

1996	Medical licensure, California (A60389)
1997	Board Certification, Internal Medicine (180510)
2007	Board Re-Certification, Internal Medicine (180510)
2008	Drug Enforcement Agency Registration (BS4946236)
2014	Medical licensure, California (A60389)
2014	Drug Enforcement Agency Registration (BS4946236 and XS4946236-Suboxone)

PRINCIPAL POSITIONS HELD

2000 - 2003	University of California, San Francisco	Asst. Adj. Professor	Family Community Medicine
2003 - 2009	University of California, San Francisco	Asst. Adj. Professor	Medicine
2003 - present	San Francisco VA Medical Center	Staff Physician	General Internal Medicine
2007 - present	Integrated Care Clinic for Iraq and Afghanistan Veterans	Director	SFVAMC
2009 - present	University of California, San Francisco	Associate Professor	Medicine & Psychiatry
2011 - 2013	San Francisco VA Medical Center	Assoc. Director	HSR&D Research Enhancement Award Program
2013 - present	Pain Clinic, Medical Practice Clinic	Medical Director	SFVAMC

OTHER POSITIONS HELD CONCURRENTLY

1985 - 1989	United States Peace Corps	High School Teacher, Samoa
1989 - 1989	Save the Children	HIV Educator, Thailand
1991 - 1992	Stanford University	Graduate Teaching Assistant, Health Policy
1996 - 2003	Tom Waddell Homeless Clinic	Staff Physician
2000 - 2003	SFGH Family Practice Service	Staff Physician

HONORS AND AWARDS

1985	Sigma Xi Scientific Honor Society
1991	Peninsula Community Scholar's Award for Community Service
2003	UCSF Faculty Career Development Award
2003	Hellman Award for Junior Faculty
2003	VA HSR&D Career Development Award

- 2006 Plenary Address, Society for General Internal Medicine National Meeting
- 2007 VA HSR&D Career Development Transition Award
- 2010 UCSF Excellence in Teaching Award in Medical Education
- 2010 Excellence in Teaching Award in Medical Education, UCSF
- 2011 Invited testimony to the House of Representatives Committee on Veterans Affairs: "Mental Health: Bridging the Gap between Care and Compensation for Veterans", Washington, DC, June 14, 2011
- 2011 Invited testimony to the Government Accountability Office (GAO) on barriers to mental health treatment in Iraq and Afghanistan Veterans
- 2012 Election to the VA Pain Health Executive Committee Workgroup
- 2014 Election to Co-Chair of the Primary Care Special Interest Group, International Society for Traumatic Stress Studies
- 2014 Selected to attend the AAMC Mid-Career Women Faculty Professional Development Seminar, Austin, Texas

KEYWORDS/AREAS OF INTEREST

Mental health, substance use disorders, posttraumatic stress disorder, war-related injury, traumatic brain injury, behavioral interventions, high-risk behaviors, vulnerable populations chronic pain; opioid use disorder

MEMBERSHIPS

- 2010 - present Academy of Medical Educators, UCSF
- 2005 - present Society for General Internal Medicine
- 2007 - 2007 American College of Physicians
- 2008 - present International Society for Traumatic Stress Studies

SERVICE TO PROFESSIONAL ORGANIZATIONS

2013 - present International Society for the Study of Traumatic Stress Co-Chair of the Primary Care Special Interest Group

SERVICE TO PROFESSIONAL PUBLICATIONS

2000 - present Ad hoc referee for JAMA, Addiction, Hepatology, American Journal of Public Health, Journal of Urban Health, Drug and Alcohol Dependence, Journal of Traumatic Stress, Journal of General Internal Medicine, Psychiatric Services, American Journal of Psychiatry, JAMA Psychiatry, Journal of Rehabilitation Research and Development

INVITED PRESENTATIONS - INTERNATIONAL

- 2009 Two invited talks at an international PTSD conference, 10/18-10/23, 2009, Haifa University (Jerusalem, Israel).
- 2010 Invited presentation on Motivational Interviewing for treatment engagement of combat veterans with PTSD. International Society for Trauma Stress Studies, 26th Annual Meeting, November 5, 2010. (Montreal, Canada)
- 2010 Discussant for symposium on PTSD and women's health. International Society for Trauma Stress Studies, 26th Annual Meeting. November 4, 2010. (Montreal, Canada)

INVITED PRESENTATIONS - NATIONAL

- 2003 Grand Rounds, "Beyond HIV—Hepatitis and Heroin Overdose among Street-Recruited Injection Drug Users," Yale School of Public Health and Epidemiology, April 22, 2003.
- 2005 VA Hepatitis C Resource Center Symposium on HIV-HCV Co-Infection in Drug Users, Chicago, IL. July, 19, 2005 (panel).
- 2008 VA National Conference Call. April, 10, 2008 (panel).
- 2008 VA Integrated Care Conference, Seattle WA, August 8-11, 2008 (two invited talks).
- 2009 mTBI and Pain Consensus Conference. Washington, D.C., June 1-2, 2009 (invited talk).
- 2010 Grand Rounds, New York University School of Medicine, June 3, 2010 (invited talk).
- 2010 Academy Health Annual Research Meeting. Boston, MA, June 27-29, 2010 (invited talk).

- 2010 The Third Annual Trauma Spectrum Conference for the Defense Centers of Excellence for Psychological Health and Traumatic Brain Injury (DCoE). Bethesda, MD, December 7-8, 2010.
- 2012 PTSD Mentoring Program Cyberseminar, "PTSD and Chronic Pain-Treatment Considerations," Nov 12, 2012
- 2012 National Center for PTSD, Boston VA, "PTSD and Chronic Pain-Underlying Etiologies and Management Considerations," Boston, MA, Dec 4, 2012
- 2013 Aspen Institute, Veteran's Initiative Summit, "Aggression and Impulsivity in Iraq and Afghanistan Veterans: Association with PTSD and Strategies for Treatment," Aspen, CO, June 20, 2013.
- 2013 West Haven VA- Pain Center of Excellence. PTSD in Combat Veterans: Exploring the Association with Chronic Pain and Prescription Opioid Use. Sept. 9, 2013
- 2013 Brown University Center for Alcohol and Addiction Studies. "Opioids in Pain and PTSD: Liability or Panacea?" Sept. 11, 2013.
- 2013 VA Community of Practice National Cyberseminar, "The Triple Threat: PTSD, Pain and High-Risk Opioid Use- What's a VA Clinician/Team to Do?" Dec 13, 2013
- 2014 VA HSR&D National Cyberseminar. "Opioids in Chronic Pain and PTSD: Liability, Potential Therapy or Both?" Jan 7, 2014.
- 2014 VA PACT Pain Initiative Community of Providers National Cyberseminar, "PACT, Pain, Opioids and Addiction." Jan 24, 2014.
- 2014 "Improving Opioid Safety in Veterans Using Collaborative Care and Decision Support." Presentation to the NIH/NCCAM National Advisory Council Working Group on "Strengthening Collaborations with the DoD and VA: Effectiveness Research on Mind and Body Interventions." July 31, 2014. Bethesda, MD
- 2014 "Improving Opioid Safety in Veterans Using Collaborative Care and Decision Support: The OPTI Study." Substance Use: From Research to Recovery- In Progress Review. Frederick, MD. Sept 22-24, 2014.
- 2015 "Improving Opioid Safety Using Collaborative Care and Decision Support". Invited symposium presentation for American Pain Society Annual Scientific Meeting, Palm Springs, CA, May 13-16, 2015.

- 2016 California Society of Addiction Medicine's Essentials of Addiction Medicine Conference, "Multi-Modal Approach to Pain Management in Primary Care: Role for Buprenorphine" Anaheim, CA, Aug 23-25, 2016.
- 2016 "Improving Opioid Safety in Veterans Using Collaborative Care and decision Support," Joint Substance Abuse Interim Progress Review, Frederick Maryland, September 20, 2016
- 2017 Seal, KH, "Pain and Opioid Management in Veterans in Primary Care: Evidence, Lessons Learned and Future Directions in Collaborative and Integrated/Integrative Care," Grand Rounds, National Institutes of Complimentary and Integrative Health, April 10, 2017, Bethesda, MD.
- 2017 Frank, JW, Seal, KH et al., "Integrating Mind Body Medicine into the Chronic Pain Toolkit," Workshop presented at the Society for General Internal Medicine Annual Meeting, April 21, 2017, Washington D.C.
- 2017 Becker, William; Seal, KH et al., "Improving the Quality of Chronic Pain Care," Workshop presented at the Society for General Internal Medicine Annual Meeting, April 21, 2017, Washington D.C.

INVITED PRESENTATIONS - REGIONAL AND OTHER INVITED PRESENTATIONS

- 2005 Featured presentation, Palo Alto VA Center for Health Care Evaluation
- 2005 Grand Rounds, San Francisco VA Medical Center
- 2005 Grand Rounds, San Francisco General Hospital
- 2006 Research Week presentation, San Francisco VA Medical Center
- 2007 Iraq War Teach-In presentation, University of California, San Francisco
- 2007 National Suicide Prevention Day presentation, San Francisco VA Medical Center
- 2007 UCSF Department of Psychiatry CME lecture.
- 2008 Regional Conference on the Care of Combat Veterans, sponsored by the San Francisco Department of Public Health
- 2008 Brain at War Conference- San Francisco VA Medical Center
- 2008 Fromm Institute, University of San Francisco, October 29, 2008.
- 2009 Two separate talks. Palo Alto, VA. Jan 5, 2009.

- 2009 Research Grand Rounds, SFVAMC, Jan 26, 2009.
- 2009 Stanford University Human Biology Program lecture series, March 5, 2009.
- 2009 Brain at War Conference- San Francisco VA Medical Center, May 26, 2009.
- 2009 Presentation to the Honorable Eric Shinseki, Secretary of the VA, San Francisco VA Medical Center, June 23, 2009.
- 2010 Research Grand Rounds, SFVAMC, Feb 2, 2010.
- 2012 Featured talk, Cognitive Impairment, Aggression, and Impulsivity in Iraq and Afghanistan Veterans: Association with TBI, PTSD, or Both? Palo Alto VA Center for Health Care Evaluation, March 6, 2012
- 2013 Research Grand Rounds, SFVAMC, Oct 21, 2013 Opioids in Pain and PTSD: Liability or Panacea?
- 2013 Pain and Opioid Bootcamp Trainings- 4 sessions conducted between Dec 2013 to 2014. Nearly 200 VA opioid prescribers trained. DVD produced and available through VA Sharepoint
- 2013 PTSD Assessment and Management for Primary Care Providers- Two separate CME talks for Regional Medical Centers-Fresno and San Jose
- 2015 Pain and the Brain: Toward Integrative Mind-Body Interventions for the Treatment of Chronic Pain in Veterans. Brain at War Conference, San Francisco, CA
- 2016 Transforming Chronic Pain Care in VA: From Biomedical to Integrated and Integrative Care. Medicine Grand Rounds, SFVAHCS, July 6, 2016.

CONTINUING EDUCATION AND PROFESSIONAL DEVELOPMENT ACTIVITIES

- 2003 Annual National VA HSR&D meeting
- 2003 Weekly Grand Rounds, San Francisco VA Medical Center
- 2005 Annual Society for General Internal Medicine Meeting
- 2005 Pain Course, University of California, San Francisco
- 2005 Annual Society for General Internal Medicine Meeting
- 2006 Society for General Internal Medicine
- 2007 University of California, San Francisco Board Review Course
- 2007 Mental Health Disorders and Traumatic Brain Injury in OEF/OIF veterans

- 2007 University of California, San Francisco PTSD Course
- 2007 Annual International Society for Traumatic Stress Studies
- 2013 Center for Mind Body Medicine- Preliminary Training
- 2014 Center for Mind Body Medicine- Advanced Training
- 2014 The AAMC Mid-Career Women Faculty Professional Development Seminar
- 2016 Whole Health Workshop- Training in Implementing a Whole Health Program, Greater LA VAMC
- 2016 Innovation Specialist Training Washington, DC , 4.5.16-4.7.16
- 2016 Network of Innovation Demo Day, Hosted by the VA Center for Innovation. Washington, DC. August 14-16, 2016

GOVERNMENT AND OTHER PROFESSIONAL SERVICE

- 2005 - present VA HSR&D Center for Health Care Evaluation
- 2007 - present VA National Substance Use Disorders- PTSD Task Force member
- 2008 - National OEF/OIF Community of Practice Task Force
- 2008 - Invited member of the Consensus Conference: Practice Recommendations for Treatment of Veterans with Comorbid TBI, Pain, and PTSD, Washington D.C.
- 2009 - 2010 Department of Veterans Affairs, CSR&D Grant Review Study Section Member
- 2011 - Invited member, VA/DoD PTSD Toolkit Development Workgroup, Washington, D.C.
- 2011 - Testimony to the United States Government Accountability Office (GAO) on barriers to mental health treatment in Iraq and Afghanistan Veterans
- 2011 - Testimony to United States Congress House of Representatives Committee on Veterans Affairs: "Mental Health: Bridging the Gap between Care and Compensation for Veterans", Washington, DC, Jun 14, 2011
- 2012 - VA/DoD Health Executive Council Subgroup Member: Pain Management in Returning Combat Veterans
- 2013 - Department of Veterans Affairs, HSR&D Grant Review Panel
- 2013 - present Project VALOR Advisory Board
- 2014 - National Institutes for Complimentary and Alternative Medicine (NCCAM) Grant Review Panel

- 2015 - Expert consultation to the counsel for the Senate Committee on Homeland Security and Governmental Affairs regarding excessive opioid prescription in VA
- 2016 - HSR&D Randomized Program Evaluations
- 2016 - Participant in the State of the Art Conference on Nonpharmacological Management of Chronic Pain; Alexandria, VA, November 3-4, 2016

UCSF CAMPUSWIDE

- 2003 - present VA HSR&D Research Enhancement Award Program
- 2005 - present VA Neuroscience Center for Excellence, SFVAMC
- 2005 - 2006 SFVAMC Research and Development IRB Sub-Committee
- 2007 - present UCSF Iraq Action Group
- 2007 - 2008 SFVAMC Operations Enduring Freedom/Operations Iraqi Freedom Veterans Steering Committee
- 2007 - present SFVAMC and VA Martinez Posttraumatic Stress Disorder/Traumatic Brain Injury Working Group
- 2011 - present Voting Member, VA Research and Development Committee
- 2011 - present Associate Director, HSR&D Research Enhancement Award Program, SFVAMC
- 2013 - present VA Integrated Service Network (VISN) 21 Pain Committee
- 2013 - present VISN Work Group-Difficult Conversations around Opioid Use
- 2014 - Search committee member for the Chair of the Department of Environmental Medicine, SFVAMC
- 2014 - present SFVAMC Medical Center Pain Committee
- 2014 - present SFVAMC Department of Medicine, Research Council
- 2015 - present Search Committee member for In-Residence Psychologist, Department of Psychiatry, SFVAMC/UCSF

COMMUNITY AND PUBLIC SERVICE

- 2000 - 2000 Hepatitis C Consortium Task Force, San Francisco Department of Public Health
- 2001 - 2001 Task Force on Office-Based Options for Addiction Therapy [OBOAT], San Francisco Department of Public Health
- 2002 - present Physicians for a National Health Program
- 2002 - 2003 National Harm Reduction Coalition
- 2003 - present California Physicians Alliance

- 2005 - present Disaster Medical Volunteer Program, Department of Public Health, Marin County.
- 2007 - 2007 Contributed to President Barack Obama's position statement on veterans' mental health
- 2010 - 2010 Member of a Campaign for Measure A to end over-crowding in public schools [Ross Valley School District]
- 2010 - present Volunteer parent instructor, Wade Thomas School, San Anselmo, CA
- 2011 - 2012 Health Coordinator, Wade Thomas School, San Anselmo, CA
- 2012 - present "Team doctor" Ross Valley Breakers Soccer team
- 2014 - present Member, Mental Health Task Force, Congregation Rodef Shalom

FORMAL TEACHING

	Academic Yr	Course No. & Title	Teaching Contribution	School	Class Size
	2005 -	Advances in Internal Medicine, University of California San Francisco	Lecturer		
	2007 -	PTSD Continuing Medical Education, Department of Psychiatry, UCSF	Lecturer		

INFORMAL TEACHING

- 2003 - present SFVAMC Medical Service attending; 2-4 weeks each academic year; conduct informal teaching rounds daily and work one-on-one with UCSF medical students on clinical examination and H and P skills.
- 2007 - present SFVAMC Integrated Care Clinic bi-monthly seminars; provide education on topics pertaining to post-deployment health such as PTSD, traumatic brain injury, substance abuse/dependence and brief interventions such as motivational interviewing.
- 2007 - present SFVAMC Medical Practice preceptor; precept UCSF medical residents, students and nurse practitioners about once monthly on average.
- 2009 - present UCSF VALOR Mentoring Program; precept one UCSF medical student in Medical Practice continuity clinic each week for one academic year.

- 2012 - present "Patient-Oriented Research Talks (PORTS)"; as Associate Director of the HSR&D Research Enhancement Award Program at the SFVAMC, I run PORTS twice monthly, in which I facilitate sessions on health services research and implementation science. PORTS is attended by UCSF and VA post-doctoral fellows as well as junior, mid-level and senior faculty members.
- 2013 - present Medical resident education- PTSD for Primary Care Providers-2 sessions each month
- 2013 - present Care of Iraq and Afghanistan Veterans in the Post-Deployment Period
- 2014 - present Optimizing Chronic Pain Management. Presentation to UCSF Medicine Interns, yearly

PREDOCTORAL STUDENTS SUPERVISED OR MENTORED

Dates	Name	Program or School	Mentor Type	Role	Current Position
1997 - 1999	Kristen Ochoa	UCSF Project Director		Supervisor and mentor	Psychiatry resident, UCLA Harbor Medical Center
2006 - present	Kristian Gima	Statistician, SFVAMC		Supervisor and mentor	Medical School
2007 - present	Teresa Ko	UCSF-Valor Mentoring Program		Supervised clinical experience and structured mentoring	Medical Student IV
2008 - 2009	Ariel Seurossi	UCSF		Mentored research summer fellowship	Medical Student II
2008 - 2009	Katelyn Gamson	UCSF- Valor Mentoring Program		Supervised clinical experience and structured mentoring	Medical Student III
2009 - 2010	Olivia Arreola	UCSF- Valor Mentoring Program		Supervised clinical experience and structured mentoring	Medical Student III
2009 - 2011	Greg Cohen	Columbia University		Supervised data collection and manuscript preparation	Graduate Student
2009 - 2011	Emily Medina	Georgetown University		Supervisor and mentor	Graduate Student
2011 - 2012	Kelli Copeland	UCSF- Valor mentoring Program		Supervised clinical experience and structured mentoring	Medical Student

Dates	Name	Program or School	Mentor Type	Role	Current Position
2012 - 2013	Katherine Hicks	UCSF-Valor mentoring Program		Supervised clinical experience	Medical Student
2011 - 2013	Lindsay Mayott	Columbia University		Supervisor and mentor	Graduate Student, Psychology
2012 - 2014	Jose Monroy	Ohio State University		Supervisor and mentor	Graduate Student, Psychology
2015 - present	Kara Zamora	TBD		Supervisor and mentor	Qualitative Researcher

POSTDOCTORAL FELLOWS AND RESIDENTS MENTORED

Dates	Name	Fellow	Mentor Role	Faculty Role	Current Position
2005 - 2007	Judith Tsui, MD	General Internal Medicine	Research/Scholarly Mentor	Research Supervision	Asst. Prof, Medicine, Boston University
2007 - 2008	Beth Cohen, MD	General Internal Medicine	Research/Scholarly Mentor	Research Supervision	Associate Prof. of Medicine, UCSF/SFVAMC
2011 - 2014	Joel Grossbard	Post-Doctoral Fellow	Research/Scholarly Mentor	Research Supervision	Post-Doctoral Fellow, University of Washington
2012 - present	Bibhav Acharya, MD	Resident, Psychiatry	Research/Scholarly Mentor	Research Supervision	Resident, Psychiatry
2010 - 2011	Christopher Koenig, PhD	Research Med Sociologist	Research/Scholarly Mentor, Career Mentor	Career and Research Mentor	Assistant Professor of Communication Studies, San Francisco State University

Dates	Name	Fellow	Mentor Role	Faculty Role	Current Position
2012 - 2015	Adrienne Heinz, PhD	Post-Doctoral Fellow	Research/Scholarly Mentor	Research Mentor	VA Palo Alto and Stanford School of Medicine
2014 - present	Joseph Grasso, PhD	Post-Doctoral Fellow	Research/Scholarly Mentor	Research Mentor	Director, Primary Care Mental Health Integration, SFVAHCS
2016 - present	Lea Vella, PhD	Post-Doctoral Fellow, VA Quality Scholars Program	Research/Scholarly Mentor	Research Mentor	Post-Doctoral Fellow, VA Quality Scholars Program
2014 - present	Natalie Purcell, PhD	Presidential Fellow, SFVAHCS	Research/Scholarly Mentor	Research Mentor	Assistant Adjunct Professor, Department of Sociology, UCSF and Director, Office of Patient-Centered Care, SFVAHCS
2015 - present	Sarah Palyo, PhD	Director, Interdisciplinary Pain Rehabilitation Program	Career Mentor	Career Mentor	Clinical Director, Integrated Pain Team Clinic
2016 - present	Carolyn Gibson, PhD	Post-Doctoral Fellow, UCSF/VA Women's Health	Research/Scholarly Mentor, Career Mentor	Career and Research Mentor	Post-Doctoral Fellow, UCSF/VA Women's Health

FACULTY MENTORING

Dates	Name	Position while Mentored	Mentor Type	Mentoring Role	Current Position
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Dates	Name	Position while Mentored	Mentor Type	Mentoring Role	Current Position
2005 - 2007	Rena Fox, MD	Asst. Prof.	Research/Scholarly Mentor	Research Advisor	Associate Clinical Professor of Medicine
2006 - present	Shira Maguen PhD	Asst. Clinical Prof.	Research/Scholarly Mentor	Academic and Research Collaborator/Advisor	Associate Clinical Prof., Psychiatry, UCSF
2007 - 2013	Shannon McCaslin, PhD	Program, SFVAMC	Research/Scholarly Mentor	Research Supervision/Collaborator	Clinical Associate Professor, Stanford School of Medicine
2008 - present	Beth Cohen, MD	Assistant Prof of Medicine	Research/Scholarly Mentor	Academic and Research Collaborator/Advisor	Associate. Professor of Medicine, In Residence, UCSF
2010 - 2015	Christopher Koenig, PhD	Asst Research Med Sociologist	Research/Scholarly Mentor, Career Mentor	Career and Research Mentor	Assistant Research Med. Sociologist
2011 - present	Benjamin Breyer, MD	K-23 awardee, UCSF	Research/Scholarly Mentor	Research Mentor	Associate Professor of Urology, UCSF

RESEARCH AWARDS - CURRENT

1. JW140067/ W81XWH-15-C-0088 PI	10 % effort	Seal (PI)
Department of Defense	9/2015	9/2019
Improving Access to Care for Warfighters: Virtual Worlds	\$ 495,224	\$ 1,258,553
Technology to Enhance Primary Care Training in Posttraumatic Stress and Motivational Interviewing	direct/yr 1	total

2. OPD-1511-33052	Co-Principal Investigator	35 % effort	Seal/Krebs (PI)
Patient Centered Outcomes Research Institution		11/2016	11/2022

Comparative Effectiveness of Patient-Centered Strategies to Improve Pain Management and Opioid Safety for Veterans		\$ 1,899,628 direct/yr 1	\$ 9,942,340 total
3.	2015C2-150-31834 Patient Centered Outcomes Research Institute Improving Care for Veterans with PTSD: Comparing Effectiveness of Medications to Augment First-line Pharmacotherapy	Co-Investigator 8/2016 \$ 315,351 direct/yr 1	Cohen (PI) 08/2019 \$ 988,560 total
4.	QUE 15-283 VA QUERI Evaluating the Implementation of the Integrated Pain Team: A Quality Improvement Project to Inform Scale-Up and Dissemination to Rural CBOCs in VISN 21	PI 5 % effort 10/2015 \$ 263,404 direct/yr 1	Seal (PI) 9/2017 \$ 413,404 total
5.	1R34AT00831901 NIH/NCCAM Improving Opioid Safety in Veterans Using Collaborative Care and Decision Support	PI 5 % effort 12/01/2013	Seal (PI) 06/2017 \$ 449,876 total
6.	CRE-12-300 Veterans Health Services Research and Development Development and Validation of a Perceived Access Measure	Site PI 5 % effort 01/0114 \$ 44,035 direct/yr 1	Pyne (PI) 12/31/2018 \$ 916,224 total
7.	JW140056 Department of Defense Does Evidence-Based PTS Treatment Reduce PTS Symptoms and Suicide in Iraq and Afghanistan Veterans Seeking VA Care?	Co-Investigator 5/2015 \$ 260,163 direct/yr 1	Maguen (PI) 4/2018 \$ 780,490 total
8.	W81XWH-12-PHTBI-CENC Department of Defense Department of Veterans Affairs	Co-Investigator 17 % effort 1/2015	Yaffe (PI) 12/2018

Chronic Effects of Neurotrauma Consortium: Epidemiology Project	\$ 337,933 direct/yr 1	\$ 1,351,734 total
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9. NIDA R01 DA033425-01 National Institutes of Drug Abuse R01 RO1-National Institutes of Drug Abuse (Consultant) Marijuana Use, Problems, and Cannabis Use Disorders in OIF/OEF/OND Veterans	Consultant N/A % effort 10/01/2012	Metrik (PI) 08/31/2017
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RESEARCH AWARDS - PAST

1. Lindesmith Foundation Heroin Overdose Prevention: Exploring the Feasibility of Take-Home Naloxone	05/01/1995 \$ 35,000 direct/yr 1	04/01/2000
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2. R01DA013245 National Institutes of Drug Abuse Access to Hepatitis C Treatment: Clinical and Histological Spectrum of HCV Liver Disease in Injection Drug Users	Co-I 09/01/1999	08/01/2002 \$ 750,000 total
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3. RO1-DA011860 Hepatitis B Vaccine Adherence in Injection Drug Users: Hepatitis B Vaccine Adherence among Injection Drug Users: A Model for HIV Vaccine Delivery	Co-I, yrs 1-2 and PI yrs 3-4 09/01/1999	08/01/2002 \$ 900,000 total
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4. San Francisco Department of Public Health Pilot Overdose Management Program for Injection Drug Users and their Partners	06/01/2001	05/01/2002 \$ 25,000 total
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5. TIDES Foundation	05/01/2002	06/01/2003
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Evaluation of a Pilot Overdose Management Program for Injection Heroin Users		\$ 48,1000 direct/yr 1	
6. VA Career Development Award	PI		
Department of Veterans Affairs		03/01/2004	03/01/2007
Overcoming Barriers to Hepatitis C Treatment among High-Risk Veterans		\$ 94,649 direct/yr 1	\$ 516,400 total
7. Individual Investigator Research Award	PI		
Academic Senate		12/01/2004	12/01/2005
University of California, San Francisco Barriers to Eligibility and Acceptance of Treatment for Hepatitis C			\$ 35,000 total
8.	PI		
Hellman Family Foundation Award		12/01/2004	12/01/2005
Investigating Barriers to Hepatitis C Treatment among Substance Users			\$ 50,000 total
9. Epidemiology Research and Information Center	PI		
Department of Veterans Affairs		03/01/2006	10/01/2007
PTSD, Depression and Substance Use Disorders among over 150,000 Veterans of Operation Enduring Freedom and Operation Iraqi Freedom		\$ 25,000 direct/yr 1	
10. W81XWH-05-2-0094	PI		
Department of Defense		09/01/2006	08/01/2008
The Neuropsychiatric Consequences of War among Veterans Returning from Combat in Iraq and Afghanistan		\$ 143,000 direct/yr 1	\$ 286,000 total
11. VA Career Development Transition Award	PI		
Department of Veterans Affairs		02/01/2007	02/28/2009

	Posttraumatic Stress Disorder: Facilitating Mental Health Treatment for OEF/OIF Veterans		\$ 195,200 direct/yr 1	\$ 390,400 total
12.	MN078889-01	PI		
	VA CSR&D MERIT		07/01/2007	10/01/2010
	Motivational Interviewing to Engage OEF/OIF Veterans in Mental Health Treatment		\$ 150,000 direct/yr 1	\$ 450,000 total
13.	PT-073238	PI		
	Congressionally Directed Medical Research Program (CDMRP)		09/01/2008	12/01/2010
	Integrating Mental Health and Primary Care Services for OEF/OIF Combat Veterans with PTSD and Co-Morbid Disorders: Assessing the Evidence		\$ 100,000 direct/yr 1	\$ 150,000 total
14.	PT-075369	PI		
	Congressionally Directed Medical Research Program (CDMRP)		09/01/2008	08/01/2011
	Does Integrating Primary Care and Mental Health Services Improve Mental Health Services Utilization, Symptoms and Functioning among OEF/OIF Veterans?		\$ 100,000 direct/yr 1	\$ 300,000 total
15.	PT-O73505	Co-Investigator		
	Congressionally Directed Medical Research Program (CDMRP)		09/01/2008	12/01/2010
	The Prevalence and Incidence of PTSD in OEF/OIF Women Combat Veterans		\$ 100,000 direct/yr 1	\$ 150,000 total
16.	Project Number 1432	PI		
	Blue Shield of California Foundation		09/01/2009	08/01/2011
	Intimate Partner Violence in Iraq and Afghanistan Veterans: Assessing Prevalence and Interventions for Early Identification and Enhancement of Treatment Engagement		\$ 67,500 direct/yr 1	\$ 225,000 total
17.	W81XWH-05-2-0094	Co-Investigator		

	NCIRE/DoD Neuroscience Center of Excellence	09/01/2008	07/01/2012
	Disentangling the Relationship between Traumatic Brain Injury, PTSD, and Other Mental Health Disorders.	\$ 150,000 direct/yr 1	\$ 300,000 total
18.	DPA 525018, Fund 38198 PI		
	REAC Award	01/01/2013	12/01/2013
	Implementing and Evaluating a Training for Providers to Improve Safety in Opioid Prescribing for Chronic Pain Patients in Primary Care		\$ 30,000 total
19.	RRP-11-434 PI		
	Department of Veterans Affairs/HSR&D QUERI	10/1/2012	9/1/2013
	A video educational intervention to improve outcomes of VA TBI screening	\$ 100,000 direct/yr 1	\$ 100,000 total
20.	W81XWH-09-1-0170 PI		
	Department of Defense	02/01/2009	03/01/2013
	Online PTSD Diagnosis and Treatment Training for Primary Care Physicians	\$ 100,000 direct/yr 1	\$ 200,000 total
21.	W81XWH-10-2-0078 PI		
	Department of Defense/ NCIRE	11/01/2011	09/01/2014
	Enhancing Cognitive Function and Reintegration in Iraq and Afghanistan Veterans with PTSD: Investigating the Efficacy of Neuroplasticity-Based Cognitive Training	\$ 125,000 direct/yr 1	\$ 250,000 total
22.	Site PI		
	VA Center of Excellence	10/01/2012	09/01/2014
	Promoting Patient Safety through Improved Tools for Opioid Prescribing	\$ 271,169.5 direct/yr 1	\$ 542,339 total
23.	W81XWH-11-2-0145 Co-Investigator		
	DoD/Gallo Clinic & Research Center at UCSF	7/1/2012	6/30/2014

Topiramate Treatment of Hazardous and Harmful Alcohol Use in Veterans with TBI		\$ 201,929 direct/yr 1	\$ 403,859 total
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24. SDR-08-408	PI		
VA Health Services Research and Development Merit Award		10/01/2010	03/01/2015
Neuropsychological Screening of OEF/OIF Veterans in VA Primary Care		\$ 231,000 direct/yr 1	\$ 925,000 total
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25. 1R34DK102152-01	Co-Investigator	10 % effort	Peralta (PI)
NIH / NIDDK		8/1/2014	7/31/2016
Lowering Blood Pressure Among Hypertensives with Screen- Detected Kidney Disease		\$ 225,000 direct/yr 1	\$ 675,000 total
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26.	Co-PI		Seal (PI)
VA Center of Innovation		03/2016	09/2016
Mind Body Skills Training Program			
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27. CRE 12-083	PI	5 % effort	Seal (PI)
VA Health Services Research and Development		01/01/2014	12/31/2018
Motivational Coaching to Enhance Mental Health Engagement in Rural Veterans		\$ 44,035 direct/yr 1	\$ 1,099,855 total

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1. Seal KH and Mutha S. Enhancing faculty mentoring of medical students. Teaching and Learning in Medicine. 8(3):174-178, 1996.
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74. Seal KH, Bertenthal D, Barnes DE, Byers AL, Yaffe K. Association of Traumatic Brain Injury with Chronic Pain in Iraq and Afghanistan Veterans: Impact of Comorbid Mental Health Conditions. *Archives of Physical Medicine and Rehabilitation*. In Press.
75. Samuelson, K.W., Abadjian, L., Jordan, J., Bartel, A., Vasterling, J., & Seal, K. Perception of cognitive problems, not objective neuropsychological test performance, mediates relationship between PTSD and functional outcomes. *Journal of Traumatic Stress*. In Press.

NON-PEER REVIEWED PUBLICATIONS

1. **Seal KH**, McCaslin SE, Marmar CR. "Depression in Veterans Returning from Iraq and Afghanistan," HSR&D Forum, VA Health Services Research & Development Service, p.5, May, 2007.

BOOKS AND CHAPTERS

1. **Seal KH**, Maguen S, Cohen B. Book Chapter: "Mental Health Problems and Treatment Utilization of Iraq and Afghanistan Veterans Enrolled in Department of Veterans Affairs Healthcare" in Future Directions in Post-Traumatic Stress Disorder: Prevention, Diagnosis and Treatment, editors Helene Wallach, PhD and Albert Rizzo, PhD; Springer Science + Business Media, New York, New York, 2015.

CONFERENCE ABSTRACTS

1. Zamora, K., Koenig, C. Abraham, T., Hill, C., Pyne, J. **Seal, KH**. "The Diversity of Veteran Engagement in Mental Health Care." Presentation for Annual Society for Applied Anthropology Meeting. Vancouver, B.C. Canada. March 31, 2016.

2. Seal, KH "Generalists and Chronic Pain Care: Research and Innovation to Optimize Population and Personal Health". Symposium presented at Society of General Internal Medicine, Annual Meeting, Hollywood, FL; May 11-14, 2016
3. Seal KH "TBI and Chronic Pain in Iraq and Afghanistan Veterans: Role of PTSD and Depression and Implications for Treatment," Military Health Scientific Research symposium. Orlando, FL; August 2016.
4. Zamora, K., Koenig, C., Abraham, T., Hill, C., Pyne, J., & **Seal, KH.** (2016, September). A Qualitative Study of the Diversity of Veteran Engagement in Mental Health Care. State of The Art VA Rural Health Summit. Washington, D.C.
5. Zamora, K., Koenig, C., Cheney, A., Miller, C., Wright, P., Stanley, R., **Seal, KH,** Pyne, J. (2016, November). The Impact of Stigma on Accessing VA Mental Health Services. American Anthropological Association annual meeting. Minneapolis, MN.
6. Koenig C, Maguen S, Monroy J, Mayott L, **Seal, KH.**"Facilitating Culture-Centered Communication between and Health Care Providers and Veterans Transitioning from Military Deployment to Civilian Life" Society for the Study of Social Problems, Annual Meeting, San Francisco, CA, August 15-17, 2014.
7. **Seal KH,** Samuelson K, Abadjian L, Tarasovsky G, Bertenthal, D, Vasterling, J. "Perceived Cognitive Deficits in Iraq and Afghanistan Veterans: Lack of Correlation with Objective Neurocognitive Performance, but Strong Association with PTSD, and Poor Work and School Functioning" Symposium for International Society for Trauma Stress Studies, 30th Annual Meeting, Miami, FL, November 6-8, 2014.
8. **Seal KH,** Maguen, S, Bertenthal, B, Neylan, TC. "Posttraumatic Stress Disorder, Chronic Pain and Opioid Use Disorder- Can Buprenorphine Be Used to Treat All Three?" International Society for Trauma Stress Studies, 30th Annual Meeting, Miami, FL, November 6-8, 2014.
9. Breyer B, Cohen B, Maguen S, Neylan TC, Rosen R, Bertenthal D, **Seal KH.** "Posttraumatic stress disorder and sexual dysfunction in male Iraq and Afghanistan veterans." Symposium for the International Society for Trauma Stress Studies, 30th Annual Meeting, Miami, FL, November 6-8, 2014.
10. Koenig C, Maguen S, Monroy J, **Seal KH.** "Compassion fatigue, professional burnout and self-care among multidisciplinary providers working in outpatient primary care settings" Society of General Internal Medicine, 36th Annual Meeting, April 24-27, 2013
11. **Seal KH;** Samuelson K; McCamish N; Koenig CR; Bertenthal D. "Web-Based PTSD Training for Primary Care Providers- Outcomes and Lessons learned" Symposium for International Society for Trauma Stress Studies, 29th Annual Meeting, Philadelphia, PA, November 7-9, 2013.
12. **Seal KH.** "PTSD in Combat Veterans: Exploring the Association with Chronic Pain and Prescription Opioid Use American Psychological Association, Annual Meeting, Honolulu, HI, July 31- Aug 4, 2013.
13. **Seal KH;** Samuelson K; McCamish N; Koenig CR; Bertenthal D; Tarasovsky G; Choucroun G. "Outcomes of a New Web-Based PTSD Training for Primary Care Providers" Society of General Internal Medicine 36th Annual Meeting, Denver, CO, April 24-27, 2013.

14. **Seal KH**, Bertenthal D, Maguen S, Samuelson K, Filanosky C, Vasterling J. "Are Memory Problems" Endorsed on the VA TBI Screen More Strongly Associated with TBI or Mental Health Problems in OEF/OIF/OND Veterans?" Abstract accepted to VA Health Services Research and Development Service (HSR&D) and Quality Enhancement Research Initiative National Conference, July 16-19, 2012, National Harbor, MD.
15. **Seal KH**, Bertenthal D, Maguen S, Samuelson K, Filanosky C, Vasterling J. "Cognitive Impairment in Iraq and Afghanistan Veterans- More Strongly Associated with TBI or Mental Health Problems?" Symposium for International Society for Trauma Stress Studies, 28th Annual Meeting, Los Angeles, CA, November 3-5, 2012.
16. **Seal KH**. "Strategies to Improve the Assessment and Management of Trauma, PTSD and Comorbid Conditions in Primary Care" Symposium for International Society for Trauma Stress Studies, 27th Annual Meeting, Baltimore, MD, November 3-5, 2011.
17. **Seal, KH**, Cohen G, Cohen, BE, Maguen, S, Bertenthal, B. "Increasing Access to Mental Health Care for Iraq and Afghanistan Veterans: Outcomes of Embedding PTSD Psychologists in Primary Care" International Society for Trauma Stress
18. Koenig CJ, Cohen G, Daley A, Maguen S, **Seal KH**. "Clinicians' perspectives on integrating mental health within primary care: A qualitative study. International Society for Trauma Stress Studies, 27th Annual Meeting, Baltimore, MD, November 3-5, 2011.
19. Samuelson K; Choucroun G; Medina E, **Seal, KH**. "Online PTSD Training for Primary Care Providers (PCPs): Can PCPs Learn to Improve Detection, Management and Referral for PTSD?" International Society for Trauma Stress Studies, 27th Annual Meeting, Baltimore, MD, November 3-5, 2011.
20. **Seal, KH**, Shi, Y, Cohen, G, Cohen, BE, Maguen, S, Krebs, E, Neylan, T. "Association of Mental Health Disorders with Prescription Opioids and High-Risk Opioid Use in Veterans of Iraq and Afghanistan" International Society for Trauma Stress Studies, 27th Annual Meeting, Baltimore, MD, November 3-5, 2011.
21. **Seal KH**, Cohen G, Bertenthal D, Cohen B, Maguen SDaley A. "Integrating Primary Care and Mental Health for OEF/OIF/OND Veterans: Outcomes and Future Directions" Oral presentation at the Society of General Internal Medicine 34th Annual Meeting, Phoenix, AZ, May 4-7, 2011.
22. **Seal KH**, Cohen G, Bertenthal D, Cohen B, Maguen S. "Does Integrating Mental Health Services in VA Primary Care Reduce Barriers to Mental Health Care for OEF/OIF Veterans?" Oral presentation at Teaming Up for High Value Care, VA HSR&D 28th National Meeting, National Harbor, MD, February 16-18, 2011.
23. **Seal KH**, McCamish N, Abadjian L, Tarasovsky G, Daley A, Ren L. "A Randomized Controlled Trial of Motivational Interviewing to Improve Mental Health Treatment Engagement and Outcomes in OEF/OIF Veterans." Poster presentation at Teaming Up for High Value Care, VA HSR&D 28th National Meeting, National Harbor, MD, February 16-

18, 2011.

24. **Seal KH.** "Detecting and Managing Posttraumatic Stress Disorder (PTSD) Symptoms in Primary Care" and "Integrated Primary Care: Models of Mental Health Treatment of Returning Combat Veterans in Primary Care" Part of workshop at the Society of General Internal Medicine 33rd Annual Meeting, Minneapolis, MN, April 28- May 1, 2010.
25. **Seal KH,** McCaslin SE, McCamish N, Ren L, Abadjian L, Daley AT. Can Motivational Interviewing Engage Mental health Treatment Engagement in Iraq and Afghanistan Veterans?" Oral presentation at the Society of General Internal Medicine 33rd Annual Meeting, Minneapolis, MN, April 28- May 1, 2010.
26. **Seal, KH,** Cohen, G, Shah, R, Maguen, S, Lawhon, D. "Integrated Co-Located Primary Care and Mental Health Services for Iraq and Afghanistan Veterans" Part of a symposium at International Society for Trauma Stress Studies, 25th Annual Meeting, Atlanta, GA, November 5-7, 2009.
27. McCaslin SE, Maguen S, Cohen B, Metzler T, **Seal KH.** "Impact of Treatment Engagement on PTSD Symptoms and Functional Impairment" Part of symposium at International Society for Trauma Stress Studies, 25th Annual Meeting, Atlanta, GA, November 5-7, 2009.
28. **Seal KH,** Cohen BE, Ren L, Tarasovsky G, Burt M, Abadjian L, Redden N. "High-Risk Alcohol Use and Substance Misuse Among Iraq and Afghanistan Veterans: High Prevalence and Associated Mental Disorders." Poster presentation at Society for General Internal Medicine 31th Annual Meeting, Miami, Florida, May 13-16, 2009.
29. **Seal KH,** Maguen S, Cohen BE, Gima K, Metzler TJ, Ren L, Marmar CR. "VA Mental Health Services Utilization in Iraq and Afghanistan Veterans in the First Year of Receiving New Mental Health Diagnoses." Poster presentation at the VA HSR&D National Conference, February 12-13, 2009, Baltimore, MD.
30. **Seal KH,** Metzler TJ, Gima K, Bertenthal D, Maguen S, Marmar CR. The Prevalence and Incidence of Mental Health Disorders Following the US Invasion of Afghanistan and Iraq in over 200,000 New Veterans Utilizing VA Healthcare, 2002-2007. Oral presentation at the VA HSR&D National Conference, February 15, 2008, Baltimore, MD.
31. **Seal KH,** Bertenthal D, Chu A, Gima K, Marmar, C. VA Post-Deployment Screening for Mental Health Disorders among Veterans Returning from Iraq and Afghanistan- Are We Doing a Good Job? Oral presentation at Society for General Internal Medicine 30th Annual Meeting, Toronto, Canada, April 25-28, 2007.
32. **Seal KH,** Bertenthal D, Chu A, Gima K, Marmar, C. OEF/OIF Veterans with PTSD are High Utilizers of Non-Mental Health VA Services. Poster presentation at VA HSR&D National Conference, February 23, 2007, Arlington, VA.
33. **Seal KH,** Bertenthal D, Miner CR, Sen S, Marmar C. Mental Health Disorders among 133,984 Veterans of Operations Iraqi Freedom and Enduring Freedom. Plenary Talk at the Society for General Internal Medicine Conference, April, 2006, Los Angeles, California.
34. **Seal KH,** Miner CR, Chu A, Bertenthal D. VA Post-Deployment Screening and Treatment Referral of OEF/OIF Veterans: How Well Are We Doing? Oral presentation at VA HSR&D National Conference, 2006, Arlington, VA.

35. **Seal KH**, Kral AH, Lorvick J, Gee L, Tsui JI, Edlin BR. Among IDUs, interest is high, but access low to HCV anti-viral therapy. Poster presented at 28th Annual Meeting, Society for General Internal Medicine, May 2005, New Orleans, LA.
36. **Seal KH**, Currie SL, Shen Hui, Anand B, Jeffers L , Wright TL. Impact of injection drug use on hepatitis C treatment candidacy and outcomes among U.S. veterans. Oral presentation for the National VA HSR&D Annual Conference, February 2005, Baltimore, MD
37. **Seal KH**, Monto A, Dove L, Vittinghoff E, Shen H, Tracy D, Miller E, Wright TL. Determinants of hepatitis C viral RNA levels among a cohort of injection drug users with and without human immunodeficiency virus coinfection. Poster presented at the American Association for the Study of Liver Diseases Annual Meeting. October 2004, Boston. *Hepatology*, Vol.40 (4), Suppl. 1, 2004.
38. **Seal KH**, Monto A, Dove L, Vittinghoff E, Shen H, Tracy D, Miller E, Wright TL. Factors associated with spontaneous resolution of hepatitis C viremia among injection drug users with and without human immunodeficiency virus coinfection. Poster presented at the American Association for the Study of Liver Diseases Annual Meeting, October 2004, Boston. *Hepatology*, Vol.40(4), Suppl. 1, 2004.

OTHER CREATIVE ACTIVITIES

1. 2000 Developed pre- and post-test counseling guideline for hepatitis C testing. Guidelines were adapted by the San Francisco Department of Public Health and the city of Richmond.
2. 2007 Developed pre-test counseling for the VA Traumatic Brain Injury Screen which has been used in screening over 1,000 veterans of Iraq and Afghanistan to date at the SFVAMC and affiliated community-based clinics.
3. 2008 Developed a clinical template for the initial post-deployment evaluation of veterans of Iraq and Afghanistan which is used at the SFVAMC and has been disseminated VA facilities nationwide.
4. 2008 Developed suicide prevention protocol for Northern California veterans in collaboration with others
5. 2010 Developed Motivational Interviewing manual for mental health treatment engagement.
6. 2013 Contributed to the development of a Boston University-accredited CME course called **Scope of Pain** <http://www.opioidprescribing.com/overview> for providers working with veterans and military service personnel in how to safely and competently initiate, modify, continue or discontinue opioids when managing patients with severe chronic pain.

ADDITIONAL RELEVANT INFORMATION

MAJOR MEDIA COVERAGE

- | | |
|---------|--|
| 3/12/07 | CNN-televised "Thousands of Veterans Return with Mental Illness" |
| 3/12/07 | Time Magazine (on-line), "Casualty of War: Mental Health" |

- 3/13/07 NBC Nightly News, "Tracking Posttraumatic Stress in Veterans Difficult"
- 9/21/07 Press Democrat, "Veterans Affairs Clinic Looking for Troubled Soldiers"
- 1/2/08 National Public Radio, "Overdose Rescue Kits Save Lives"
- 3/3/08 National Public Radio, "The California Report" "Veterans Mental Health"
- 3/16/08 San Francisco Chronicle, Sunday Edition. "Impact of the Iraq War"
- 7/16/09 New York Times, "Vets mental health Diagnoses Rising"
http://www.nytimes.com/2009/07/17/health/views/17vets.html?_r=1
- 7/16/09 Los Angeles Times, "Percentage of Veterans with Mental health Diagnoses Jumps Dramatically"
http://latimesblogs.latimes.com/booster_shots/2009/07/veterans-mental-health-veterans-affairs-study-.html
- 7/17/09
Bloomberg News:<http://www.bloomberg.com/apps/news?pid=20601103&sid=apW.hI0hK3Kk>
Forbes: <http://www.forbes.com/feeds/hscout/2009/07/16/hscout629099.html>
Kaiser Health News: <http://www.kaiserhealthnews.org/Daily-Reports/2009/July/17/Veterans.aspx>
Yahoo! News:
http://news.yahoo.com/s/hsn/20090717/hl_hsn/manyveteransneedmentalhealthcare
Salon/AP: http://www.salon.com/wires/ap/2009/07/16/D99FPBA00_us_army_suicide/
The Oregonian:
http://www.oregonlive.com/news/index.ssf/2009/07/striking_jump_in_mental_illnes.html
New Jersey Star-Ledger:
http://www.nj.com/news/index.ssf/2009/07/study_says_13_of_iraq_afghanis.html
11/6/09 New York Times, "Stress Beyond Belief"
[http://www.nytimes.com/2009/11/07/opinion/07herbert.html?_r=1&scp=1&sq=karen%20seal&st=cse"](http://www.nytimes.com/2009/11/07/opinion/07herbert.html?_r=1&scp=1&sq=karen%20seal&st=cse)
02/16/10 BusinessWeek, "PTSD Treatment Still Lacking for Veterans"
<http://www.businessweek.com/lifestyle/content/healthday/635984.html>
02/17/10 Veterans Today, "Top 10 Veterans News from Around the Country"
<http://www.veteranstoday.com/2010/02/17/top-10-veterans-news-from-around-the-country-8/>
02/22/10 AOL News, "Army Faces Surge of Soldiers Hitting the Bottle"
<http://www.aolnews.com/nation/article/army-faces-surge-of-soldiers-hitting-the-bottle/19367836>
03/19/10 Medscape Medical News, "Vast Majority of Veterans with PTSD Do Not Receive Sufficient Treatment" <http://www.medscape.com>

05/31/10 San Francisco Chronicle, "S.F. Clinic Treats War Stress in New Way"
[http://articles.sfgate.com/2010-05-31/entertainment/21651532_1_ptsd-dr-karen-seal-primary-care.](http://articles.sfgate.com/2010-05-31/entertainment/21651532_1_ptsd-dr-karen-seal-primary-care)

02/21/11 Psychiatric News, "VA's Integrated-Care Model Puts MH Screening in Primary Care" <http://pn.psychiatryonline.org/content/46/2/6.2.full>.

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Time Magazine (online), "The Conundrum of Risky Painkillers for Veterans with PTSD"
<http://healthland.time.com/2012/03/08/the-conundrum-of-risky-painkillers-for-veterans-with-ptsd/>

New York Times, "For Veterans with Post-Traumatic Stress, Pain Killers Carry Risks"
<http://atwar.blogs.nytimes.com/2012/03/07/for-veterans-with-post-traumatic-stress-pain-killers-carry-risks/?ref=jamesdao>

CBS News, "Veterans with PTSD Are More Likely to Get Addictive Pain Med Prescriptions"
http://www.cbsnews.com/8301-504763_162-57391894-10391704/study-veterans-with-ptsd-are-more-likely-to-get-addictive-pain-med-prescriptions/

Fox News, <http://www.foxnews.com/health/2012/03/07/vets-prone-to-drug-addiction-get-risky-painkillers/?test=painmgt>

San Francisco Chronicle, <http://www.sfgate.com/cgi-bin/article.cgi?f=/n/a/2012/03/06/national/a130127S12.DTL&type=printable>

Marin Independent Journal, http://www.marinij.com/tablehome/ci_20113796/vets-prone-drug-addiction-get-risky-painkillers

Army Times, <http://www.armytimes.com/news/2012/03/ap-vets-prone-to-addiction-get-risky-painkillers-030612/>

Huffington Post, http://www.huffingtonpost.com/2012/03/06/painkillers-vets-ptsd-risky-addiction-physical-pain_n_1325044.html?view=print&comm_ref=false

USA Today, <http://yourlife.usatoday.com/health/story/2012-03-06/PTSD-veterans-prone-to-drug-addiction-get-risky-painkillers/53388510/1?csp=34news>

National Public Radio: "Vets Prone To Drug Addiction Get Risky Painkillers"
Medscape: "Veterans with Mental Illness More Likely to Receive Opioids"

3/7/2012

Associated Press (AP), "Veterans with PTSD more likely to get addictive painkillers despite the risks, VA study shows"

http://www.philly.com/philly/health/20120306_ap_vetspronetodrugaddictiongetriskypainkillers.htm

4/11/2014 New York Times, Sunday Edition. "A Soldier's War on Pain"
<http://www.nytimes.com/2014/05/11/business/a-soldiers-war-on-pain.html>

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7/2017 Caring for Veterans Outside the VA System

<https://www.acpinternist.org/archives/2017/07/caring-for-veterans-outside-the-va-system.htm>