
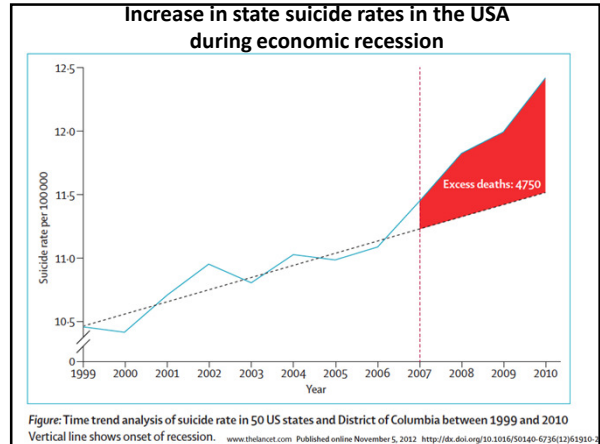


Health Informatics & Technology Conference
 October 20-22, 2014 Double Tree by Hilton Baltimore - BWI Airport, USA

**Mood247.com:
 Improving Healthcare
 Information & Integration**

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10 Leading Causes of Death by Age Group, United States – 2008

| Rank | Age Groups | | | | | | | | | | Total |
|------|-----------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|--------------------------------|--------------------------------|-------------------------------|--|---|--|--|
| | <1 | 1-4 | 5-9 | 10-14 | 15-24 | 25-34 | 35-44 | 45-54 | 55-64 | 65+ | |
| 1 | Congenital Anomalies 5,638 | Unintentional Injury 1,461 | Unintentional Injury 875 | Unintentional Injury 1,044 | Unintentional Injury 14,168 | Unintentional Injury 16,665 | Malignant Neoplasms 12,699 | Heart Disease 37,892 | Malignant Neoplasms 94,091 | Heart Disease 495,730 | Heart Disease 616,828 |
| 2 | Short Childhood 4,754 | Congenital Anomalies 521 | Malignant Neoplasms 437 | Malignant Neoplasms 433 | Homicide 5,475 | Suicide 7,106 | Malignant Neoplasms 12,699 | Heart Disease 37,892 | Malignant Neoplasms 86,711 | Malignant Neoplasms 391,729 | Malignant Neoplasms 560,409 |
| 3 | SIDS 2,363 | Homicide 421 | Congenital Anomalies 191 | Suicide 207 | Suicide 2,293 | Homicide 4,618 | Heart Disease 11,336 | Unintentional Injury 70,214 | Chronic Low Respiratory Disease 12,751 | Chronic Low Respiratory Disease 121,223 | Chronic Low Respiratory Disease 141,090 |
| 4 | Maternal Pregnancy Comp 1,795 | Malignant Neoplasms 204 | Homicide 193 | Homicide 207 | Malignant Neoplasms 1,563 | Malignant Neoplasms 3,211 | Suicide 6,713 | Suicide 7 | Unintentional Injury 12,751 | Chronic Low Respiratory Disease 114,506 | Cardiovascular Disease 134,148 |
| 5 | Unintentional Injury 1,157 | Heart Disease 106 | Heart Disease 97 | Congenital Anomalies 161 | Heart Disease 1,962 | Heart Disease 3,264 | Heart Disease 11,336 | Homicide 5,475 | Diabetes Mellitus 11,370 | Alzheimer's Disease 91,273 | Unintentional Injury 124,461 |
| 6 | Phenacetic Acid 1,089 | Influenza & Pneumonia 142 | Septicemia 99 | Heart Disease 132 | Congenital Anomalies 467 | Heart Disease 3,264 | Heart Disease 11,336 | Heart Disease 11,336 | Diabetes Mellitus 11,370 | Diabetes Mellitus 90,883 | Alzheimer's Disease 91,273 |
| 7 | Bacterial Septicemia 706 | Septicemia 93 | Chronic Low Respiratory Disease 52 | Chronic Low Respiratory Disease 54 | Influenza & Pneumonia 142 | Diabetes Mellitus 1,514 | Liver Disease 2,562 | Diabetes Mellitus 5,422 | Liver Disease 8,526 | Influenza & Pneumonia 48,362 | Diabetes Mellitus 76,513 |
| 8 | Respiratory Distress 636 | Cardiovascular 63 | Cardiovascular 41 | Cardiovascular 54 | Diabetes Mellitus 204 | Cardiovascular 514 | Cardiovascular 2,562 | Chronic Low Respiratory Disease 4,292 | Suicide 7,463 | Nephritis 35,921 | Influenza & Pneumonia 48,362 |
| 9 | Circulatory System Disease 504 | Chronic Low Respiratory Disease 54 | Influenza & Pneumonia 49 | Influenza & Pneumonia 49 | Cardiovascular 199 | Liver Disease 1,854 | Diabetes Mellitus 1,854 | HIV Disease 3,730 | Nephritis 4,903 | Unintentional Injury 12,751 | Nephritis 48,237 |
| 10 | Neonatal Hemorrhage 556 | Perinatal Period 51 | Septicemia 25 | Septicemia 36 | Complicated Pregnancy 169 | Congenital Anomalies 379 | Septicemia 592 | Viral Hepatitis 2,732 | Septicemia 4,552 | Septicemia 27,028 | Suicide 7,463 |

Source: National Vital Statistics System, National Center for Health Statistics, CDC.
 Produced by: Office of Statistics and Programming, National Center for Injury Prevention and Control, CDC.

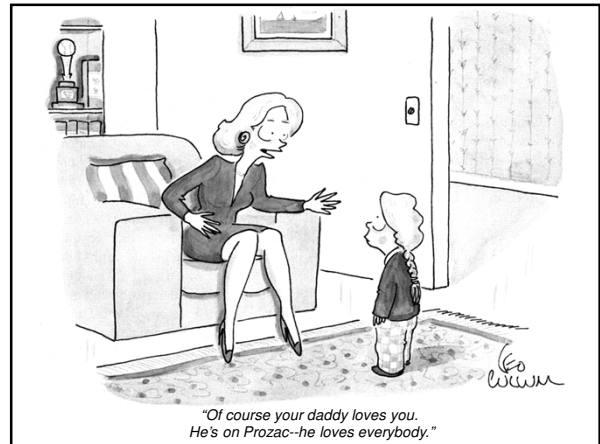
**2012 National Strategy for Suicide Prevention:
 GOALS AND OBJECTIVES FOR ACTION**

A report of the U.S. Surgeon General
 and of the National Action Alliance for Suicide Prevention

- Suicide is the 10th leading cause of death, claiming more than twice as many lives each year as does homicide.
- Suicide is the 2nd leading cause of death for 25-34 year olds.
- On average, between 2001 and 2009, more than 33,000 Americans died each year as a result of suicide, which is more than 1 person every 15 minutes.
- In 2009, more Americans died from suicide than from motor vehicle traffic-related injuries.
- For every person who dies by suicide, more than 30 others attempt suicide.
- More than 8 million adults (3.7%) report having serious thoughts of suicide in the past year, 2.5 million report making a suicide plan in the past year, and 1.1 million report a suicide attempt in the past year.

Why are We Failing to Effectively Treat Depression?

- Do we lack effective treatments?



Why are We Failing to Effectively Treat Depression?

- What Does Behavioral Health Presently Lack?
 - Information
 - Integration

DSM IV Inventory: SIGEMCAPS

- Sleep (↓ / ↑)
- Interest (or pleasure)
- Guilt (or worthlessness)
- Energy (fatigue)
- Mood
- **Concentration**
- Appetite (↓ / ↑ or weight loss or gain)
- Psychomotor retardation (or agitation)
- Suicidal ideation (or thoughts of death)
- ≥5/9 Sx for ≥2 weeks

DSM V - Diagnostic and Statistical Manual of Mental Disorders criteria, Sx = symptoms.

Lack of Integration: Evolution of the Practice of Medicine

- Specialization of Medicine & Clinicians:
 - American Board of Medical Specialties recognizes a total of 24 specialty areas for board certification and 145 subspecialties.
- Average Annual Patient Utilization of Healthcare:
 - A typical patient sees a median of two primary care physicians and five specialists each year, in addition to accessing diagnostics, pharmacy, and other services.
 - Patients with several chronic conditions may visit up to 16 physicians in a given year.
 - More than 130 million Americans—nearly 1 in 2 adults—have at least 1 chronic disease.

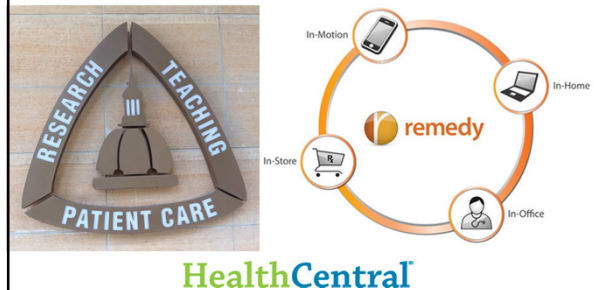
(Strandberg-Larsen, Dan Med Bull 2011;58(2):B4245)

TIME HEALTH

More People Have Cell Phones Than Toilets, U.N. Study Shows.
Out of the world's estimated 7 billion people, 6 billion have access to mobile phones (90%). Only 4.5 billion have access to working toilets.
By Yue Wang March 25, 2013




Academic-HIT Company Collaboration



HealthCentral

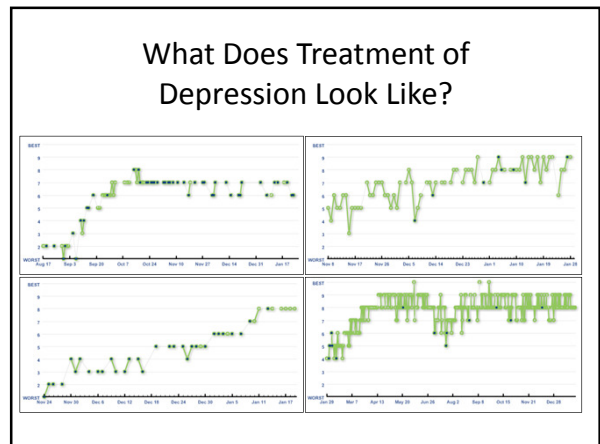
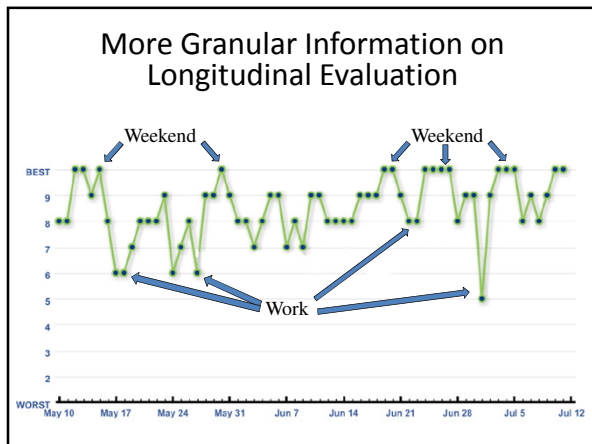
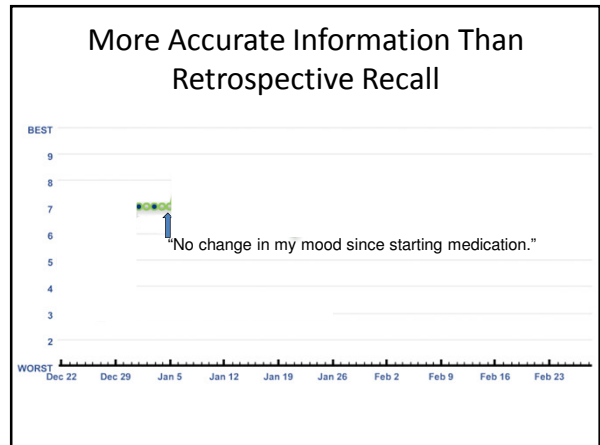
WWW.MOOD247.COM
Mood 24/7: Transforming the Technology You Already Own

- Daily text to track mood course.
- Takes seconds to respond.
- Annotations can be added.
- Utilizes individuals own cell phone.
- Responses visualized online in real time.
- Mood chart can be shared with trusted circle that includes Healthcare Providers, family members and friends.
- Healthcare Providers can also annotate directly into the patient's chart.
- Automatic notification can be implemented for closer monitoring.




Mood24/7 In Action

- Guardian Angel Effect
 - "It's like a friend I can count on to call every evening always at the same time, waiting to hear how I'm feeling... I began to be able to see my own patterns and associate what was causing ups or downs."
- Therapeutic and Preventative
 - "It makes me think about the the little things that I stress about sometimes. When I get the text from Mood 247, I sit back and think about what is most important to me and that is being happy."
- Through Knowledge Comes Power
 - "My patient had these 'light bulb' moments where she got what is going on with her mood disorder for the first time. It's like she went from being a little bobble head in a sea of emotions to being able to stand in the water and brace herself against the tide."



Integration of Care: Coordinating Patient and HealthCare Providers

NOTES SHOW ONLY HEALTHPRO

Record a note about this member:

Appreciate Dr. Williams' input. Charting step is an excellent idea!

08/26/13 6 [ADD NOTE]

08/26/13 6 [ADD NOTE]

08/27/13 5 [ADD NOTE]

Appreciate Dr. Kaplan's coordination of care. I will order TSH, CBC, CMP and adjust symptom accordingly. In addition to monitoring exercise and diet, I recommend keeping track of sleep hours and quality of sleep using Mood247, since this can impact fatigue greatly.

08/27/13 - 09:41 AM by hkaplan@mhmi.edu [ADD NOTE]

08/26/13 3 [ADD NOTE]

08/26/13 6 [ADD NOTE]

Commence tracking your diet and exercise regimens on Mood247. Check with your PCP about possible need to evaluate your TSH to confirm that you are properly dosed with Synthroid, given your worsening fatigue. A complete blood count would also be in order. Medications: Elavil 50, 150 mg, Synthroid 50 mg.

08/27/13 - 08:28 AM by Adam Kaplin, MD, PhD
Delete Note

08/16/13 5 -6. Better day. Some depression but day turned out ok.
08/16/13 - 09:44 PM

"I'm doing fair". Looking over Mood247 and had one really good day this week when woke up and didn't feel depressed. Felt light during the day, not burdened by low mood. Enjoyed all the things that have to do (e.g. Get up with Matthew, feed him, etc). Looked forward to the day. Had nothing planned with friends until late afternoon. Did normal routine with walk, play, shower, cooking to lunch and then work. First time in a week!

is 10 months old today. Really good day. Yesterday was a really not so good day. No rhyme or reason. Took a bit of effort to get through. Other days were OK, mixed. Feels like constantly managing mood and sticking to routine to ensure that doesn't get stuck in depression. Avoiding pitfalls of work by not going to church or calling people from work. Got in mail letter from Unum about how long disability was extended a 3 weeks. Patient has to be interviewed and grieved about why she hasn't returned to work. Representative is very unhelpful. Feels in limbo about when she will be able to go back to work.

got FT teaching job at UVA. Means that he is not substituting that means will need to find childcare. But job is good work. re-evaluation to return to work scheduled for after 9/23/13 (because that is after Sunday school is up and running). Patient hopes it will be beginning of October. First step will be patient starts to feel ready to volunteer child care person. Patient but agrees that she start to volunteer somewhere even as she has a child care person come in. Little NTP level 31 (was 30 on 10 mg and we increased to 40 mg without change in level). Lithium level into undetectable. TSH and CR were normal. APT, MDD, recurrent, severe, 10 mos Postpartum + FMS. Stewart is patient's base and she requested that I contact him about prognosis and treatment plan.

Seeing someone (therapist). Wanted me to pass on her note. We increasing NTP dose 50 mg initially then 50 mg next week. Increasing the lithium to 450 mg. Will increase Depkin to 15 mg on Monday when increase the NTP to 60 mg. Will reduce lates on Friday 8/23 - scheduled August 23, 2013 from 3:00 PM to 4:00 PM.

PM: Depkin
08/16/13 - 04:11 PM by Adam Kaplin, MD, PhD
Delete Note

What if we really cared about suicide in this country?

By 1999, 80% reduction in suicide rate from lowest rate since 1980

FIGURE 1 Annual number and rate* of suicides among U.S. Air Force personnel—United States, 1980–1999*

Proof of Effectiveness of Integrated Suicide Prevention Program Based on IOM
(Hampton, JAMA. 2010;303(19) 1903-1905)

What do these programs have in common?

*Per 100,000 U.S. Air Force personnel. 1999 rate is an estimated projection as of August 31, 1999. Significant negative linear trend in suicide rate from 1994 to 1996 (p<0.0001).

Decreasing Suicide: What Do These Programs Have in Common?

- Awareness:
 - Recognition of the problem of suicide and the need to address it.
- Accountability:
 - A commitment by all stakeholders to address the issue and prevent it.
- Ascertainment:
 - Routine screening by diverse members of the community and a way of monitoring the problem and response to intervention.
- Active, Integrated, Timely Action Plan:
 - An integrated plan to address in a timely fashion those in need of help.

Mood Rating Becomes Part of Daily Routine

04/06/10 1 ...Dr K I kno life isn't easy nor is it fair, but damn, I can't take it much longer...when will this end
04/06/10 - 08:13 PM

AK@JHMI.EDU

www.mood247.com:

Transforming the technology you already own

Simple is not necessarily simplistic

“The drive toward complex technical achievement offers a clue to why the U.S. is good at space gadgetry and bad at slum problems.”
~John Kenneth Galbraith



