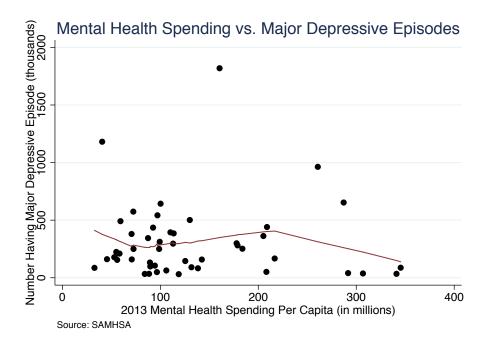
It May Literally Pay to Invest in Mental Health and Addiction Treatment Miranda Yayer

Depression is widely cited as a <u>leading cause of disability</u> in the United States and around the globe. While in 1990, the Global Burden of Disease (GBD) study cited depression as being the fourth leading cause of disease burden worldwide, in 2000 depression rose to prominence as the third cause of disease burden, <u>and in 2010 ranked second</u>. Moreover, in addition to affecting millions, it has recently been highlighted as especially salient in such high-powered professions as medicine, in which residents often face burnout and depression and rarely seek assistance.

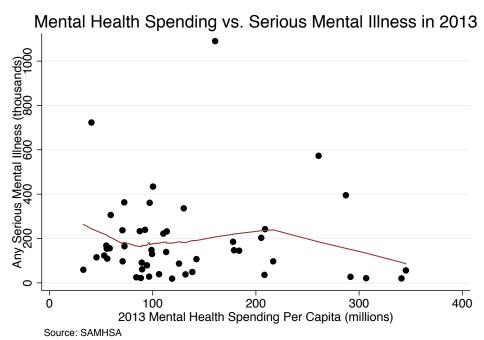
Despite the prevalence of recent calls to invest more in mental health research and services, the extent of funding over recent years has remained virtually constant: <u>according to the Kaiser Family Foundation</u>, the mental health per capita expenditure (in millions) at the national level was \$122.9 in 2009, \$120.56 in 2010, \$123.93 in 2011, \$124.99 in 2012, and \$119.62 in 2013. Indeed, in 18 states, the per capita mental health expenditures *declined* between 2012 and 2013.

In the interest of full disclosure: I'm not talking here about causal inference. I am not presenting here well-identified effects of treatments from RCTs. But I am showing some simple bivariate results at the national and state levels that should give us pause before resisting expanding our coverage of mental health.

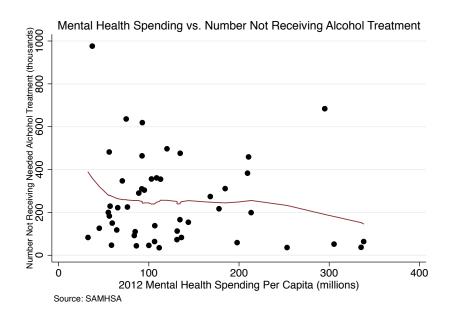
Here, we can see a lowess smoother of mental health spending and the number of people experiencing major depressive episodes, with a slight downward trend – that is, a slight inverse relationship between mental health spending and the pervasiveness of major depressive episodes that year.



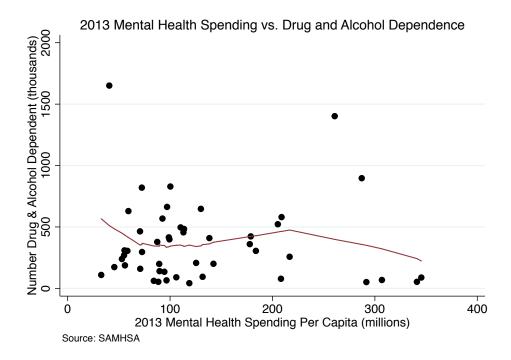
A similar pattern can be found with respect to those who are reported to have experienced serious mental illness in the last year, with the lowest rates of serious mental illness coinciding with the highest rates of funding:



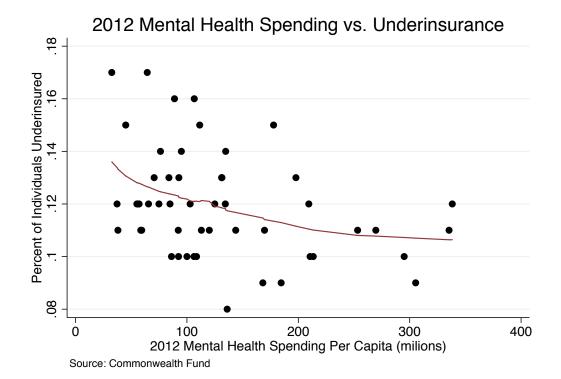
Not only does there appear to be at least some relationship between mental health funding and the extent of reported symptoms, in particular of a higher degree of severity (limited to correlations though these data are), there further appears to be a relationship between that funding rate and the extent to which individuals are able to obtain access for treatment for their substance abuse:



This is particularly noteworthy given that lower rates of mental health spending do not appear to be simply associated with lower rates of *need* for care. Not only did the above plot refer specifically to those who did not obtain *needed* services, but here we also do not see that lower rates of spending are associated with lower rates of drug and alcohol abuse and addiction:

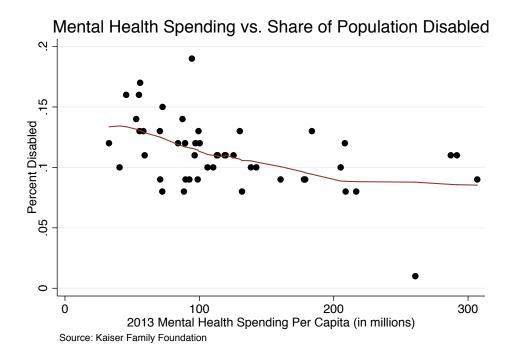


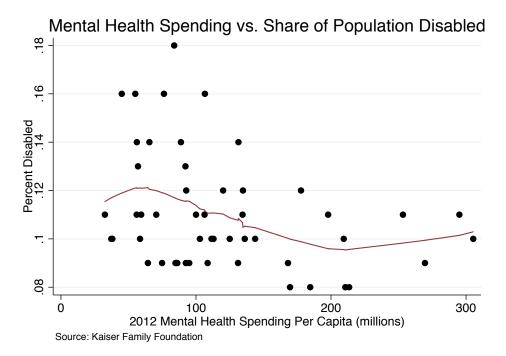
The failure to access needed services for such conditions is perhaps attributable to the fact that lower rates of mental health funding also happen to be associated with higher rates of underinsurance, defined as out-of-pocket medical costs that amount to 10% or more of one's annual income. Such pervasiveness of underinsurance – which is on the rise with 31 million Americans considered to be underinsured – has been considered an important barrier to people utilizing the health benefits that they have in order to obtain needed care:



Indeed, the Commonwealth Fund Biennial Health Insurance Survey of 2014 reported that 51% of underinsured adults reported difficulty in paying for medical hills or debt, and 44% reported that they did not get needed care due to the cost barrier. What's more, the National Alliance on Mental Illness (NAMI) found that despite parity legislation, claims denials from insurance companies often are much higher than in the case of medical care (for example, service denials based on medical necessity being at a rate of 14% for medical care, 18% for substance abuse, and 29% for mental health). This makes all the more important the enforcement of parity legislation and the remedying of federal and state underfunding of these public health problems.

But what's in it for the government? Here, we can see the relationship between mental health spending per capita at the state level (2013 and 2012) and the percent of the age 21-64 population receiving disability benefits. While the relationship flattens toward the right end of the distribution, we do see that much of the higher rate of disability are concentrated in the data points with lowest funding levels, and the lower rates of disability in those regions with greater levels of funding.





To be sure, the data are noisy, and no one is claiming that these are easy fixes. It requires hard work on the part of policymakers, insurance providers, and the public health community in order to work toward policy progress for those who have been left behind. But while there is little ignoring the marked financial investment in expanding health care coverage for both physical and mental health, the downstream consequences of lack of coverage with respect to ultimate disability should give lawmakers and others pause before deeming policy changes too expensive. In many ways, we are paying for it to some extent either way. It's a question of whether we invest on the

front end proactively, or pay for care down the line when people become less productive or outright disabled, while simultaneously losing dollars that could otherwise be getting put into the economy by those workers. Given the challenges of underinsurance and untreated mental illness (in some cases severe mental illness) and drug and alcohol abuse, it may in fact *pay* to do a better job of investing in effective treatment for these conditions.