

Economic Impact of Schizophrenia – How to illustrate long-term savings without long-term outcome data

Reference to Follow-Up Assignment # 19

One of the most convincing forms of evidence that mental health advocacy organizations can provide to policy makers is data demonstrating that prevention and early intervention strategies will bring long-term cost reductions. This data will then support the argument that public funding streams should become more dedicated to investing in prevention and early intervention programs that demonstrate effective outcomes – such as EPPIC, TIPS, and PEPP.

Some international early intervention programs have argued to their government bodies that the strategies within their model not only improve treatment outcome – but also reduce long-term costs. Yet because these programs are so new, and therefore not able to provide long-term outcome data that depicts cost-savings, how are they successfully convincing their governments to invest in these programs? Answering this question might help advocates strategize their own plan to convince policymakers.

Strategies

1. Data from the Global Burden of Disease Study –

In 1990, the World Health Organization, the World Bank, and Harvard University conducted a world wide study about the economic impact of illnesses, revealing that mental illness, including suicide, accounts for over 15% of the burden of disease in established market economies. This meant that mental illness ranked second, only to heart disease, in the level of economic burden it brought to developed nations like the United States. Mental health advocates and researchers in other countries such as Australia, Norway, Holland, Canada, and the U.K., took this data straight to their policymakers and argued for more funding to be directed towards research that examines the effectiveness of preventive or early treatment. Many of these groups were effective. In the 1990s many foreign countries, including Australia, England, and Canada, announced that modernizing mental health services into best-practice-based community treatment models would be one of (*if not THE*) the top health priorities of the next decade. In essence, the study provided indirect proof that severe mental illness creates a level of costly disability that could be reduced if proper treatment is offered during the initial onset of illness.

2. Data from research in the U.S. that illustrates the economic impact of schizophrenia and/or severe mental illnesses

The National Mental Health Association just supplied a handy tool to U.S. advocates in their September 2001 report on the cost of untreated and mistreated mental illness and substance abuse. This report gathers all of the most recent data collected on the subject in the U.S. in the last 10 years. Data from this report can be used in much of the same way that international advocates used the global burden of disease research to demonstrate the

need for funding for early intervention. The main point is to demonstrate that untreated or mistreated mental illness is extremely costly.

The researcher who knows the most about how to measure this impact, Dr. Dorothy Rice, is located right in our backyard at the University of California at San Francisco. Most of Dr. Rice's studies only examine the impact of untreated or mistreated mental illness, particularly schizophrenia, on a national scale. Preliminary examinations of whether any burden of cost data has been analyzed specifically for the state of California has not materialized – and Stephanie is fairly confident that there is not anything published. This, however, does not mean that this data is not out there. Stephanie has contacted Dr. Rice and asked for her assistance in locating any data that may have been collected for dissertations or by private policy think tanks. It would be ideal for our purpose if current data is available. Stephanie will follow-up with a report following her conversation with Dr. Rice.

In the interim, the following national data is still very useful for the purpose of supporting the argument that early intervention strategies reduce the long-term cost of severe mental illness, such as schizophrenia.

In August of 2001, Dr. Dorothy Rice of UCSF found that the total yearly cost of mental illness and addictive disorders in both the private and public sector cost \$205 billion. Less than half of that amount (92 billion) is for direct treatment – the rest - \$113 billion is due to lost productivity (105 billion) and crime and welfare costs (8 billion). Dr. Rice further found that even though unipolar depression is responsible for the largest portion of indirect and direct costs combined, schizophrenia by far accounts for the most direct costs. In 1990, the direct cost of treating individuals with schizophrenia totaled 17.3 billion, or about 53.2% of the total cost of 32.5 billion. This is rather staggering considering that the prevalence rate is only 1.1% compared to 12.6% for anxiety disorders and 9.5% for affective disorders. Using statistics like these illustrate that developing effective treatments used early in the course of schizophrenia have the potential to curb some of the costs associated with this illness.

(Source: Rice, Dorothy P. Journal of Clinical Psychiatry 1999;60[suppl 1]:4-6)

3. Data Needed to Demonstrate Cost-Savings

American researchers that have done cost studies identify the following as areas that would need to be measured in order to illustrate long-term cost effectiveness.

Direct Cost:

- Length of hospital stay
- Length of stay in residential care or other supportive housing
- Number of visits with psychiatrist
- Number of visits with other mental health professionals
- Cost of drugs (i.e. less drugs need to combat co-morbid conditions)
- Support cost
- Long-term nursing facilities
- Crime
- Social welfare Administration

Indirect Cost:

- Morbidity – loss of productivity
- Mortality (suicide or premature death)
- Incarceration
- Family care giving

Australian Team members suggested that the following areas be evaluated by an outside team in order to establish reduce costs: post-treatment outcome measures such as Quality of Life scales and scales that measure negative symptoms, length of hospital stay, frequency of relapse, reduction of days spent in jails or prisons, length or duration of drawing welfare/disability benefits vs. days work, and ability to supply own housing.

4. Example – EPPIC attempts to show cost-effectiveness

Although most international early intervention programs have not been around long enough to be able to illustrate long-term outcomes that produce cost-effectiveness, EPPIC has tried to do just this in order to convince policy makers that a significant investment in their program will cut costs. The design of the study was fairly simple. A group of patients that underwent the services that were provided before the EPPIC model was up and running was compared to a group of patients that underwent the EPPIC services that included phase-specific, community-oriented treatment for early psychosis. Not surprisingly, EPPIC was able to illustrate cost reductions.

Because the Victoria Department of Social Services was the “funder” for both samples, comparisons were easily made. Three levels of data were collected. First *resource utilization* was determined for each subject in the two samples – such as what and how much of various services were received in a 12 month period of time. Secondly, the cost of these services was determined, and then finally the total average cost of services received for an individual was determined. Unfortunately the design method has two large flaws. First, the duration of contact could not be evaluate due to a lack of data and furthermore EPPIC was in its first year of practice and thus feels that they were functioning as well and smoothly as they did in future years.

Despite these two factors that might skew the data – EPPIC was able to demonstrate the cost-effectiveness of their model. The average cost of one year of treatment for the non-EPPIC patients was 24,074 (AUD) but for EPPIC patients that cost was only 16,964 (AUD). Also important was treatment outcome was far better in the EPPIC sample even when less money was used. For example, researchers were able to calculate that for an average of \$1,081 AUD, patients’ entry level SANS score decreased from 34.5 to 18.1 after 12 months. On the other hand, for an average cost of \$12, 671 AUD non-EPPIC patients’ entry level SANS score decreased from 29.7 to only 27.8 after 12 months.

Thus among the study’s problematic elements, it is clear that future early intervention programs will be able to show cost effectiveness both by a reduction of costly services (i.e. in-patient services) as well a reduction in loss of productivity due to increase treatment outcomes (i.e. ability to return to vocation or schooling).

(Source: Mihalopoulos, C., McGorry, P.D., and Carter, R.C. Is Phase-Specific, Community-Oriented Treatment of Early Psychosis an Economically Viable Method of Improving Outcome? Acta Psychiatrica Scandinavica 1999:100:47-55).

***I have contacted to folks at TIPS and inquired about the possibility of when they might have any cost-effectiveness outcome data. I believe we could have something by spring 2002.