



# *LCO Results Update*

THE LONGITUDINAL STUDY OF MENTAL HEALTH SERVICES AND CONSUMER OUTCOMES IN A CHANGING SYSTEM

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TO: Department Leadership  
ADAMHS/CMH Boards  
Interested Others

FROM: Dee Roth

RE: Physical Health of the LCO Respondents

This update describes the physical health problems of consumers in the LCO Study as reported by both the consumers and their case managers. Our research shows that many consumers in the LCO study have very significant health concerns and that those recently 508 certified have more health problems than those consumers who have been in the system for longer periods of time. This was surprising because the newly 508 certified consumers had an average age of 42.4 years compared to 50.1 years for the consumers who entered the system prior to 1991.

Physical health problems may exacerbate or contribute to the mental illnesses of the consumers receiving public sector mental health services in Ohio. The high incidence of physical health problems among consumers points to a need for local mental health systems to refer consumers to, and coordinate services with, physical health providers.

If you have any questions about the results, please e-mail or call Michael Hannon or Dushka Crane-Ross. E-mail: [hannonm@mhmail.mh.state.oh.us](mailto:hannonm@mhmail.mh.state.oh.us), [crane-rossd@mhmail.mh.state.oh.us](mailto:crane-rossd@mhmail.mh.state.oh.us). Phone: (614) 466-8651. For more information about the research, see OPER's Web site: [www.mh.state.oh.us/oper/oper.index.html](http://www.mh.state.oh.us/oper/oper.index.html).

## LCO Overview

LCO is a longitudinal study of services, needs, and outcomes of adult consumers with SMD. The study includes 5 waves of measurement, spanning a period of 8 years. In the fifth wave of data collection, the participants included 269 consumers from the original longitudinal cohort (the old cohort) and 101 individuals who were newly 508 certified in 1996 (the new cohort). Data were collected through consumer interviews and case manager surveys. The study took place in four board areas: Trumbull County, Montgomery County, the 4-County area (Williams, Fulton, Defiance, and Henry Counties), and the Adams-Lawrence-Scioto area. Results on the following pages have been analyzed by gender, race, age, and diagnosis. Relevant significant differences among these areas have been noted.

## Physical Health of LCO consumers

We assessed the physical health of consumers in the LCO study both to gain a better picture of the lives of SMD consumers in Ohio and to determine if consumers have treatment needs beyond those produced by mental illness.

### General Health and Health Care

Over half of the consumers reported that, in general, their health was only fair or worse. In the 1997/8 wave of measurement,

- 6% (n = 22) of consumers reported that their health was excellent,
- 12% (n = 44) reported that their health was very good,
- 28% (n = 102) reported that their health was good,
- 34% (n = 124) reported that their health was fair, and
- 20% (n = 71) reported that their health was poor.

Consumers were asked to rate their satisfaction with: their physical health in general, the medical care available to them for their physical health problems, and how often they are able to see a doctor for physical health care (see Table 1 for 1997/8 results). Most consumers were not satisfied with their physical health. However, the majority of consumers were satisfied with their physical health care and how often they are able to see a doctor.

Table 1  
How do you feel about:

	Your physical health in general? (N = 365)	The medical care available to you for physical health problems? (N = 364)	How often you see a doctor for physical health care? (N = 366)
Terrible	41 (11.2%)	14 (3.8%)	8 (2.2%)
Unhappy	40 (11.0%)	25 (6.9%)	17 (4.6%)
Mostly dissatisfied	39 (10.7%)	23 (6.3%)	25 (6.8%)
Mixed	79 (21.6%)	42 (11.5%)	47 (12.8%)
Mostly satisfied	95 (26.0%)	128 (35.2%)	129 (35.2%)
Pleased	52 (14.2%)	93 (25.5%)	115 (31.4%)
Delighted	19 (5.2%)	39 (10.7%)	25 (6.8%)

## Interference in Life

Consumers were also asked to what extent their physical health interfered with their regular daily activities in the past 4 weeks. Overall, in 1997/8,

- 32% (n = 116) of consumers reported no interference,
- 24% (n = 88) reported a little bit of interference,
- 11% (n = 41) reported a moderate amount of interference,
- 21% (n = 77) reported quite a bit of interference, and
- 11% (n = 38) reported extreme interference.

Case managers were asked to rate the degree to which physical ailments caused problems in the everyday functioning of the consumers in the LCO study that they served. In 1997/8, Case managers reported that:

- 40% (n = 114) of consumers had no problems caused by physical ailments,
- 12% (n = 34) had slightly problematic ailments,
- 28% (n = 80) had somewhat problematic ailments,
- 10% (n = 29) had moderately problematic ailments, and
- 9% (n = 26) had extremely problematic ailments.

The consumer and case manager reports are moderately related (Spearman's rho [278] = .31,  $p < .001$ ) suggesting that consumers and case managers agree somewhat on the extent of consumers' physical health problems. However, consumers tend to rate their health as interfering more with their daily activities. Differences may be due in part to the fact that the consumer and case manager survey instruments used slightly different structures for questions about physical health problems. The differences may also indicate that consumers are basing their assessment of their physical health on different standards than those used by the case managers.

## Problems Obtaining Treatment

In the most recent wave of data collection, 22% (n = 78) of consumers indicated that they had physical health problems for which they had been unable to get treatment. Consumers unable to get treatment for a physical health problem were asked to provide details in their own words. Most consumers gave a description of the problems for which they have been unable to get treatment (e.g., "My ears ring and it drives me nuts," "My joints hurt"). Ten consumers did indicate that cost or lack of insurance had prevented them from obtaining treatment (e.g., "I can't get a medication I need because of the expense," "I need an operation for my hand, but Workers Compensation won't approve it."), while an additional ten said that the treatments they are or were receiving had not been effective (e.g., "What they do helps some, but I still have problems," "I received medication for stomach problems, but it did no good").

## Change over time

Consumers were asked about physical health issues only in the last two waves of data collection (1995 and 1997/8). Over this period, there was no change in physical health or physical health care reported by those consumers who had been in the study at both time points. Case managers reported a slight increase in the physical health problems of consumers in the LCO study from 1991 to 1997/8 (Friedman Test,  $P^2[109,4] = 13.051$ ,  $p < .05$ ). In 1991 case managers reported that 45% of consumers had no problems caused by physical ailments compared to 40% in 1997/8. Only 17% of consumers were reported to have moderately or extremely problematic ailments in 1991, compared to 19% in 1997/8.

### **Differences by Demographic and Diagnostic Categories**

Compared to consumers who were 508 certified in the past (the old cohort), consumers who were recently 508 certified (the new cohort) were less satisfied with their physical health in general (U[365] = 10818.0,  $p < .01$ ), less satisfied with the medical care available to them for their physical health problems (U[364] = 11482.0,  $p < .05$ ), and less satisfied with how often they see a doctor for physical health care (U[366] = 11654.0,  $p < .05$ ). Consumers in the new cohort also reported more interference in their daily lives because of physical health problems than consumers in the old cohort (U[360] = 10505.0,  $p < .01$ ).

Additionally, women were less satisfied with their health in general than men (U[365] = 13589.5,  $p < .05$ ). Women also had more interference in the lives due to physical health problems, according to both consumer (U[360] = 13189.5,  $p < .05$ ) and case manager reports (U[283] = 7892.5,  $p < .01$ ).

Consumers from minority groups were more satisfied than other consumers with how often they see a doctor for physical health care (U[366] = 9713.5,  $p < .05$ ). Additionally, minority consumers had less interference in their daily lives due to physical health problems than other consumers according to both consumer (U[360] = 9655.5,  $p < .05$ ) and case manager reports (U[283] = 5579.0,  $p < .05$ ).

Those consumers with a diagnosis of depression were less satisfied with their health in general than other consumers (U[326] = 5182.00,  $p < .005$ ), reported being in worse health than other consumers (U[324] = 5152.0,  $p < .005$ ), and they also reported more interference in their daily lives due to physical health problems than other consumers (U[322] = 5451.5,  $p < .05$ ).

Additionally, the older the age group, the more physical health problems case managers reported, Kruskal Wallis Test ( $P^2[3, 276] = 10.666$ ,  $p < .05$ ). However, age was not related to consumers' perceptions of their own physical health or physical health care.

### **Depression, Gender, and Cohort**

New cohort consumers and women were more likely to have a diagnosis of depression than old cohort consumers ( $P^2[1,329]=15.047$ ,  $p < .001$ ) and men ( $P^2[1,329]=14.280$ ,  $p < .001$ ), respectively. Regression analysis was used to determine when depression, gender, and cohort had independent effects on the reported rates of physical health problems. For these purposes, depression was measured using the depression subscale of the Brief Symptom Inventory (Derogatis & Melisaratos, 1983).

We found that depression is related to consumer reports of their physical health problems and that differences in rates of depression account for much of the difference between the cohorts and genders in their reports of physical health problems. However, cohort does have an impact independent of the higher rate of depression in the new cohort. Those consumers who were recently 508 certified have more physical health problems than those who were 508 certified in the past even after the higher rates of depression in the new cohort have been taken into consideration.

These findings were obtained by using BSI measure of depression, cohort, gender, age, and minority status in a linear regression model to predict the consumers' reports of interference caused by physical health problems. Of these independent variables, only cohort ( $t[332]=2.148$ ,  $p < .05$ ) and depression ( $t[332]=7.278$ ,  $p < .001$ ) were significantly related to consumer reports of the interference in their lives caused by physical health problems. Additionally, depression alone predicted 16% of the variance in the interference, while adding cohort to the model did not expand the explanatory power of the model significantly.

The same variables were used to predict the consumers' reports of their health in general. In this case, cohort ( $t[336]=-2.344$ ,  $p < .05$ ) and depression ( $t[336]=-6.522$ ,  $p < .001$ ) were again related to consumer reports of their health in general. However, this time adding cohort to the model significantly increased the amount of variance in consumer reports of their health explained from the 13.0% achieved by depression alone to 14.4%. The other variables did not add any significant explanatory power to the model.

## Discussion

The public mental health system in Ohio serves many consumers with physical health problems. Consumers with a negative assessment of their physical health in general also reported a lower overall quality of life (ANOVA,  $F[4,360] = 14.003$ ,  $p < .001$ ). These physical health problems may complicate treatment in addition to making the consumers' lives more difficult.

Other research has shown that depression is associated with greater need for overall health care (Simon, VonKorff, & Barlow, 1995) and our research has shown that the physical health needs of individuals diagnosed with depression, particularly those who have been recently 508 certified, are greater than the needs of other consumers. Consumers who are more recently 508 certified are more likely to be diagnosed with depression than consumers who have been in the system for longer periods of time. If this trend diagnostic trend continues, the number of consumers with physical health problems who are receiving public sector services will continue to grow.

## References

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