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ARIZONA HEALTH CARE COST CONTAINMENT SYSTEM

Date: May 2, 2011

To: Interested Parties

From: AHCCCS Administration

Re: Summary of Public Informational Briefing re Arizona's Medicaid Reform Plan

On April 25, 2011, the Arizona Health Care Cost Containment System (AHCCCS) held a Public Hearing on Arizona's plan to preserve the Medicaid program with proposed changes to drive down costs in the program during the State's fiscal crisis. Information was sent to interested stakeholders and notice was also posted on the AHCCCS public website at <http://www.azahcccs.gov/publicnotices/Default.aspx>.

Participants were provided the opportunity to attend from across the State via teleconference. The briefing began at approximately 2:00 p.m. and information was provided about the proposal, process for submitting comments, and next steps. The briefing was open for public comment and everyone who requested to speak was provided the opportunity. Everyone was encouraged to also submit written comments to be published on the web. The following individuals provided comments at the briefing:

Name	Organization	Topics
<a href="#">Sarah Kader</a>	Arizona Center for Disability Law	Opposed cuts to AHCCCS for people with disabilities and concerned about notices and information about qualifying for other AHCCCS programs.*
<a href="#">Michael Donnelly</a>	Recovery Empowerment Network	Opposed cuts to AHCCCS; specifically copays/penalties and provided research on their effectiveness*
Tami Johnson	Morris Institute for Justice	Opposed cuts to AHCCCS; specifically copays/penalties, 6 month redetermination, EPSDT elimination for waiver groups, FES elimination. Concerned about disproportionate impact to the homeless. Reference written comments submitted to CMS.
<a href="#">Eddie Sissons</a>	Arizona Foundation for Behavioral Health, Arizona Behavioral Health Coalition, and Maricopa Consumers, Advocates, and Providers, Inc.	Opposed cuts to AHCCCS; specifically NEMT elimination. Contrary to the desire of voters when Props 204 and 105 were passed. Concerned about timing and providing notice to members and switching SMIs to SSI-MAO. Requested exemption from NEMT elimination for rural parts of Pinal and Maricopa counties *
Joan Serviss	Arizona Coalition to End Homelessness	Opposed cuts to AHCCCS for homeless individuals
Matt Jewett	Children's Action Alliance	Opposed cuts to AHCCCS and copays for children and the impact of freezing parent coverage; presented info on other states; commented that the proposal does not meet 1115 standards

\* Written documents that were provided at the hearing are attached below.

<b>Name</b>	<b>Organization</b>	<b>Topics</b>
Suzanne Legander	S.T.A.R. - Stand Together and Recover Centers, Inc.	Opposed cuts to AHCCCS; specifically NEMT elimination and 6 month redetermination; presented info on public transportation; Requested exemption for SMIs and that providers be able to see redetermination dates.
Eva Hamant	Self	Questions re dental coverage in ICF-MRs and if NEMT elimination applies to DD. (No)
Brad Doyle	Parent of Adult	Concerned with lack of available information and stakeholder involvement on DD related issues; Opposed cuts to AHCCCS, specifically DDD, respite and provider rate reductions. Question on CES dollar amount. (TBD).
Cindy Komar	Arizona Hemophilia Association	Opposed cuts to AHCCCS; provided info on importance of preventive treatment; requested contingency plan for members with chronic care conditions.
Timothy Schmaltz	Protecting Arizona's Family Coalition	Opposed cuts to AHCCCS; requested public comments be submitted to the Legislature
John Dacey	Gammage & Burnham	Questions re: whether copays are mandatory for providers to collect (no) whether agency will save money for missed appointment fees (no) whether 5% rate reductions apply to DD providers (yes)
Calicia White	Ebony House, Inc.	Opposed cuts to AHCCCS, specifically as it impacts those who need substance abuse treatment.
Allen Gjerswig	Keogh Health Connection	Question on impact to current Childless Adults
Sue Davis	Self / Advocate / Behavioral Health	Opposed cuts to AHCCCS and comment re constitutional implications and Prop 204
David Carey	Arizona Bridge to Independent Living	Opposed cuts to AHCCCS, specifically cuts to respite and how reductions in services could move members out of the community
Anthony Hernandez	Happy Kids Pediatrics	Opposed cuts to AHCCCS and would have liked opportunity to provide comments in advance of the waiver submission
<b>MED Comments</b>		
Suzanne Legander	Family Member	Opposed cuts to AHCCCS; concerned about denying care for treatable illnesses such as cancer.
Matt Jewett	Children's Action Alliance	Opposed cuts to AHCCCS, specifically as it impacts children; presented info on other states with similar programs; concerned there are no other alternatives for families.

## Public Hearing Agenda

**AHCCCS Update**  
**Date: April 25, 2011**  
**Time: 2:00 p.m.**

**The ABIL Conference Center**  
**5025 E. Washington St., Ste 200**  
**Phoenix, AZ 85034**  
**Flagstaff Office**  
**Tucson Office**

### Agenda Topics

Welcome	Theresa Gonzales
Introductions	AHCCCS Staff
Guidelines for Presenting Public Comments	Monica Coury
Presentation	Monica Coury/Matthew Devlin
Request for Public Comment	Attendees

### Guidelines for Presenting Public Comments

- Public comments are welcomed by AHCCCS. Please submit a speaker slip to present comments at today's hearing or submit written comments at any time (instructions below).
- Questions should be written on the speaker slip.
- Comments may be mailed to: AHCCCS 801 East Jefferson, MD 4100, Phoenix, AZ 85034, faxed to: (602) 256-6756, e-mailed to: [PublicInput@azahcccs.gov](mailto:PublicInput@azahcccs.gov), or submitted electronically to:  
<http://www.azahcccs.gov/reporting/federal/commentform.aspx>
- Visit the AHCCCS website for additional information.  
<http://www.azahcccs.gov>.

# **Arizona Center for Disability Law**





## **PUBLIC COMMENT AT AHCCCS PROGRAM UPDATE**

April 25, 2011

Good afternoon. My name is Sarah Kader. I am a Staff Attorney at the Arizona Center for Disability Law. The Center advocates for the legal rights of persons with disabilities to be free from abuse, neglect and discrimination and to have access to education, health care, housing and jobs, and other services to maximize independence and achieve equality.

The Center is here today to advocate for the continued medical care of people with disabilities. The proposed cuts to AHCCCS coverage will have a negative and disproportionate effect on people with disabilities. It is unfortunate that the Arizona State Government is balancing the budget on the backs of our most vulnerable, especially when other options are available. We are here today to ask that AHCCCS take actions to ensure the maximum number of individuals with disabilities continue to receive medical coverage in the most integrated setting in the community.

The Center is deeply concerned that the cuts will result in increased institutionalization of persons with disabilities. In the Americans with Disabilities Act, Congress explicitly identified unjustified segregation of persons with disabilities as a form of discrimination. Similarly, in the 1999 United State Supreme Court case *Olmstead v. L.C.*, the United States Supreme Court held States are required to provide community-based treatment for persons with disabilities when appropriate. How will the State be able to provide services to people with disabilities in the least restrictive setting if many community-based services are significantly reduced or eliminated?

In addition, we have questions regarding exceptions for people with disabilities in notices posted on the AHCCCS website. One notice says that people with disabilities may still be eligible under another AHCCCS program even if they become ineligible under AHCCCS Care. Another notice says their cases will be sent to the AHCCCS SSI MAO office for redetermination. The Center requests further clarification on what other programs will be available and the process to qualify.

The Center also wishes to inquire into the status of transplant services. We would like to know when transplants will again be covered and what the qualifying criteria will be. The ambiguity of this situation has been detrimental to those on the waiting list.

If the Center can be of assistance in providing information on how these changes in coverage will affect people with disabilities, do not hesitate to contact us. I thank you for your time.

# Recovery Empowerment Network

This packet is being presented for the consideration of the members of the AHCCCS waiver committee.

Included in this packet are studies that address two issues that are being considered in the request for waiver.

Issue: Seek approval to pilot penalty & incentive strategies for childless adults for their own health care. Impose an annual fee of \$50 for individuals who are obese &/or suffer a chronic health disease.

Articles attached: Obesity Reduction & Prevention Strategies for Individuals with Serious Mental Illness.

Author: National Association of State Mental Health Program Directors Medical Directors Council: 2008

NIMH Articles: Significant Weight Gain, Metabolic Changes Associated with Antipsychotic Use in Children: 2009

: Use of Antipsychotics in Alzheimer's Patients May Lead to Detrimental Metabolic Changes: 2009

The known side effects of second generation antipsychotic medications have been an issue since the medications introduction into the practice of treating a wide array of illness across a range of ages. The most common and widely discussed has been weight gain. The Penalty that is being considered is adding insult to injury to a population that has not had a choice in the medications available or prescribed and the results of being compliant today will result in a monetary penalty to the patient and not the prescriber.

An annual penalty of \$50 for many of us would seem small I admit however the mixed message it may send to those already compromised is of concern. How many individuals will stop taking their medications for monetary reasons because they can longer afford the co-pay or because of the shame that we will place on individuals. There is no guarantee that a return to the earlier antipsychotic medications will result in the slimming of the population. There have been no definitive studies done to indicate that individuals who have their medications changed to the earlier antipsychotics have in fact been able to shed the pounds. The new array of side effects including Tardif Dysknesia, EPS, which is treated most commonly with Benadryl, has its own side effect of drowsiness. Drowsiness is not necessarily a precursor to weight loss.

The other reality that is not being considered is on the limited income this population has at their disposal many individuals receive or seek out food boxes from various agencies. Thankfully food boxes are available for many individuals, however the content of these food boxes are high in foods that create difficulty with weight loss. The issues of transportation, and co-pay, and possibly a penalty will create more dependence on food boxes and other community food sources which feed to erase hunger and work with limited funds themselves.

I am also concerned that this is a discriminatory practice. Are we going to penalize the Alzheimer's patient population who also has been given the same array of antipsychotic medications and suffers from obesity?

The importance of medications for individuals to be able to be reintegrated into the society has been demonstrated in many efficacy studies. The mixed message that is being sent in asking for this penalty has another implication that may open the state to further legal entanglements. The *Olmstead v L.C.* Supreme Court case determined “that the medically unjustifiable institutionalization of persons with disabilities constitutes a violation of the Americans with Disabilities Act.” The spirit of this law contends that community must make reasonable accommodations so that an individual is able to reside in the community. The penalty places the individual with disability in an unreasonable position the individual has not caused their obesity, the medication has been the cause. Financial penalty may limit the ability to remain integrated in the community and not being compliant with medication may lead to civil commitment or worse case scenario psychosis may create enough danger to require the services of law enforcement and a different incarceration. The possibility of legal challenges looms large in these circumstances.

Issue 2: Limits imposed on other services such as limit of 720 hours per year, respite care, limit to 12 emergency room visits per year, & other not defined.

Article attached and Bibliography: Missouri Foundation for Health. Issue Brief Respite Care: 2004

Authors: M. Ryan Barker, Policy Analyst MFH Policy Group

The literature for the services of Respite Care in the SMI population is very limited. The *Journal of Advanced Nursing* (Feb. 2005) Did a review of the Literature and found that it is woefully limited.

Respite Care for caregivers and people with Severe Mental Illness: literature review.

The article does have a summation which includes the following finding: “The majority of family care giving studies identified a need for greater quality, quantity, variety, and flexibility in respite provisions...”

The Missouri study clearly shows and clearly studies the purposes and outcomes of Respite Care.

“Caregiver respite has two primary purposes: 1) to decrease caregiver stress and 2) to delay or eliminate the need for institutionalization of, or foster care services for the person receiving care. The core principles connected with this type of assistance include support and preservation of care giving or family relationships.”

The article continues in a thoughtful manner to discuss the caretakers’ dedication to care despite the consequences they personally experience because of the sacrifice being made. These consequences are outlined in the attached report. Nearly 2/3rds of all care givers participate in the workforce according to the study. These individuals who are caregivers are the individuals who need the respite care availability so that they can remain in the workforce, conduct normal family functions and continue to keep a family member attached to a natural supportive environment. This desire to keep the family intact has been central in many studies to the health and wellbeing of communities and the resiliency of its members.

Respite care has been shown to assist not only the care giver but also the recipient by, as outlined in the article, help, “prevent abuse and neglect, delay or avert institutionalization, and provide opportunities to build new relationships and feel a sense of independence.”

The reduction in the number of Respite Care hours being asked for in the waiver and the reduction in annual days allowed for hospitalization (25 annually) do not support each other in creating desirable outcomes. Individuals in the community that do not have natural supports are more likely to be hospitalized. If Care givers are not given the support of the community it is reasonable to assume that, as outlined in the article, the consequences of care giving will affect their health and lead to an inability to provide home care.

We find ourselves back at the dilemma created by *Olmstead v L.C.*, “the state must make reasonable modifications to furnish community services in the most integrated setting unless the state can prove that to do so would require a fundamental alteration of its program.”

We by taking away the support to community based care givers will create a proportional increase in institutionalization. This defies the spirit found in *Olmsted v L.C.* and opens the state to further litigation and an expenditure of funds that would be better spent in the creation of solutions rather than legal contests.

In these two areas of Obesity and Respite care we are surprisingly punishing the patient. This is not a matter of stopping fraud and abuse, we are punishing those individuals and in the case of Respite Care the family, for participating and complying with the standards of care as professed by the professional community. Medication compliance is directly correlated to Obesity and de-institutionalization is directly correlated to Respite Care. It appears as if we are punishing solutions.

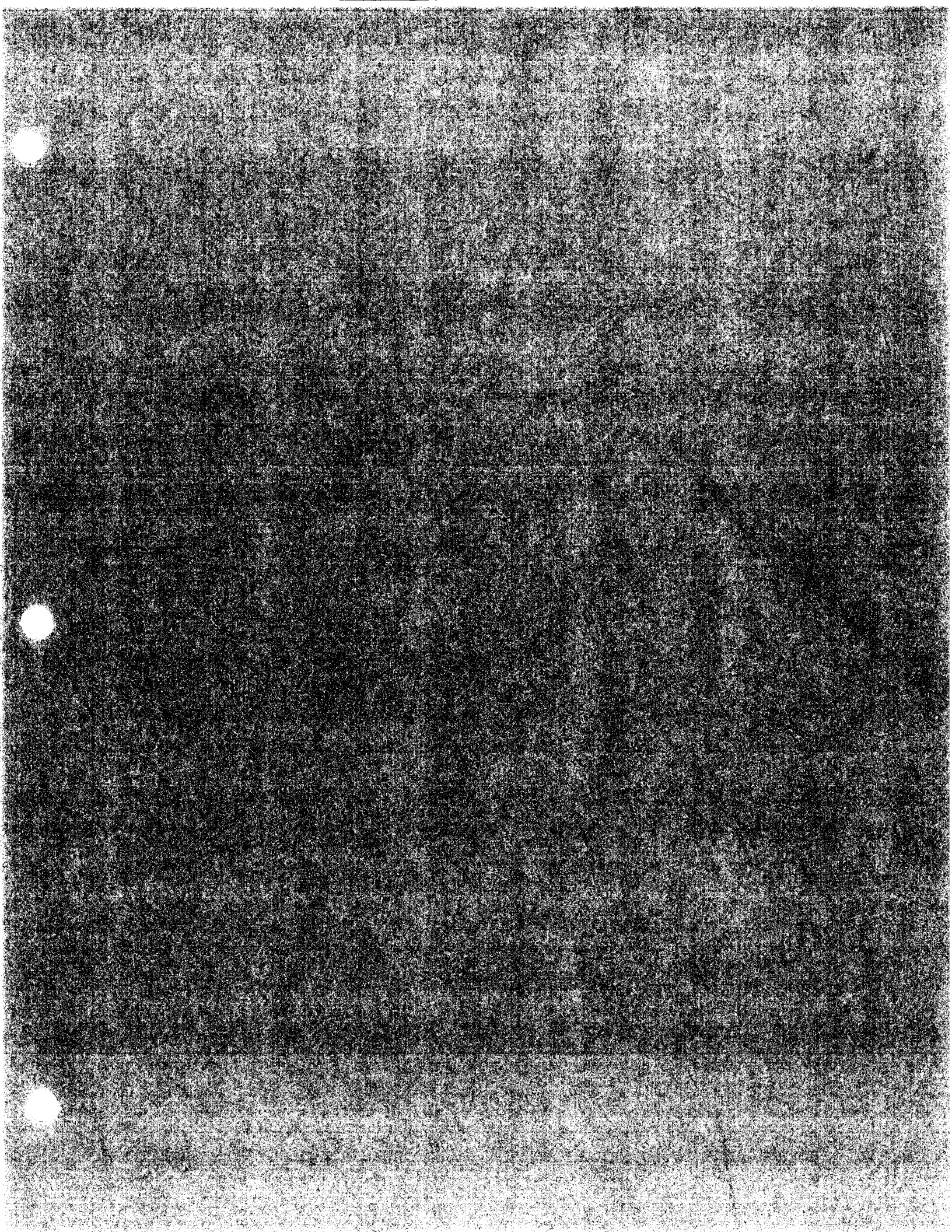
We sincerely hope that these concerns will be considered and a more collaborative effort will be considered in going forward with these difficult decisions.

Thank you

Michael Donnelly, B.A. BHT

Director of Development and Community Partnerships

Recovery Empowerment Network.







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Science Update • April 15, 2009

## Use of Antipsychotics in Alzheimer's Patients May Lead to Detrimental Metabolic Changes

Atypical antipsychotic medications are associated with weight gain and other metabolic changes among patients with Alzheimer's disease, according to a recent analysis of data from the NIMH-funded Clinical Antipsychotic Trials of Intervention Effectiveness—Alzheimer's Disease (CATIE-AD) study. The study was published online ahead of print April 15, 2009, in the *American Journal of Psychiatry*.



### Background

Most of the data on the metabolic effects of atypical antipsychotics—also called newer or second generation antipsychotics—is from younger or middle-aged adults with schizophrenia. The metabolic effects on patients with Alzheimer's disease taking these medications have not been systematically assessed until now.

The CATIE-AD study compared the atypical antipsychotics olanzapine (Zyprexa), quetiapine (Seroquel) and risperidone (Risperdal) to a placebo (inactive pill) among 421 participants with Alzheimer's disease. Previously reported results from the CATIE-AD study found that the medications can benefit some patients in treating hallucinations, delusions, aggression and other similar symptoms, but they appear to be no more effective than a placebo when adverse side effects are taken into account. This most recent analysis, conducted by Ling Zheng, M.B.B.S., Ph.D. and Lon S. Schneider, M.D., of the University of Southern California, and colleagues, examined metabolic side effects associated with the medications.

### Results of the study

During the first 12 weeks of the trial, olanzapine and quetiapine were significantly associated with weight gain—up to 0.14 pounds per week. Women gained more weight than men, and weight gain increased the longer a patient stayed on the medication. In addition, olanzapine was associated with a decrease in HDL (good) cholesterol and increased waist size. The researchers theorized that women gained more weight than men because older women tend to have more body fat and less lean body mass than older men, potentially making them more susceptible to the medications' metabolic side effects.

### Significance

Previous results from CATIE-AD found only modest effectiveness in treating behavioral symptoms of Alzheimer's disease while adverse effects limited improvements overall. The results of this latest analysis suggest further caution is needed when using atypical antipsychotics to treat Alzheimer's patients. The researchers conclude that Alzheimer's patients receiving atypical antipsychotics should be monitored very closely.

### What's next

Further studies are needed to better determine which Alzheimer's patients may benefit from use of atypical antipsychotics, and which may be more susceptible to serious side effects.

### Reference

Zheng L, Mack WJ, Dagerman KS, Hsiao JK, Lebowitz BD, Lyketsos CG, Stroup TS, Tariot PN, Vigen C, Schneider L. Metabolic changes associated with second-generation antipsychotic use in Alzheimer's disease patients: the CATIE-AD study. *American Journal of Psychiatry*. Online ahead of print April 15, 2009.

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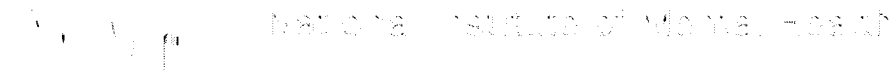
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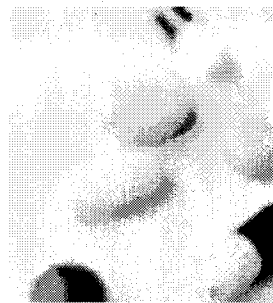
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Science Update • October 27, 2009

## Significant Weight Gain, Metabolic Changes Associated with Antipsychotic Use in Children

Many children and adolescents who receive antipsychotic medications gain a significant amount of weight and experience metabolic changes, according to NIMH-funded research published October 28, 2009, in the *Journal of the American Medical Association*.



### Background

Children and adolescents with mental disorders such as bipolar disorder or schizophrenia spectrum disorder are often treated with antipsychotic medications, especially the newer, second-generation (sometimes called atypical) antipsychotics. However, research has shown that these medications have worrisome cardiovascular and metabolic effects on young people, and their long-term effects on growing bodies are unknown.

Christoph U. Correll, M.D., of Zucker Hillside Hospital in New York, and colleagues conducted a nonrandomized study in 338 pediatric patients, ages 4 to 19 years, who had never taken antipsychotic medication before (antipsychotic-naïve). The children had been diagnosed with a mood disorder, psychotic disorder, or a disruptive or aggressive behavior disorder. They were prescribed one of four antipsychotics by their doctors—olanzapine (Zyprexa), aripiprazole (Abilify), quetiapine (Seroquel) or risperidone (Risperdal)—for a period of 12 weeks. Their doctors decided which drug each patient received, and at what dose. Fifteen patients who refused to take the prescribed antipsychotic or who stopped their medication in the first few weeks and returned for study visits were used as a comparison group.

### Results of the Study

The researchers found that all of the medications were associated with significant weight gain (an average of almost 13 lbs). Those taking olanzapine gained the most weight—an average of about 19 lbs, while the weight gain with other antipsychotics ranged from 9.9 to 13.5 lbs over the first three months of treatment. In contrast, the untreated comparison group experienced minimal weight change of less than 0.5 lbs.

Changes in metabolic factors varied considerably among the medication groups. Those taking olanzapine and quetiapine experienced statistically significant changes in total cholesterol and triglycerides. Those taking risperidone experienced significantly elevated triglyceride levels. Neither the aripiprazole group nor the untreated comparison group experienced significant metabolic changes during the first three months of treatment.

### Significance

This study was the largest to focus on changes in weight and metabolic factors among children and adolescents who were antipsychotic-naïve and treated under real-world conditions. The authors note that unhealthy weight and metabolic problems in childhood often lead to increased cardiovascular problems in adulthood.

### What's Next

Longer-term studies are needed to determine long-term weight and metabolic effects associated with specific antipsychotics in youth. In addition, more study is needed on the mechanisms involved in antipsychotic-induced weight gain and metabolic abnormalities, as well as strategies to reduce these adverse effects. NIMH studies investigating the effects of antipsychotics in children are ongoing.

In the meantime, the authors suggest that clinicians treating children weigh the benefits of antipsychotics against their significant cardiovascular and metabolic risks and consider lower-risk alternatives.

### Reference

Correll CU, Manu P, Olshansky V, Napolitano B, Kane JM, Malhotra AK. Cardiometabolic risk of second-generation antipsychotic medications during first-time use in children and adolescents. *Journal of the American Medical Association*. 28 Oct 2009. 302(16): 1765-1773.

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Science Update • May 17, 2010

## Effectiveness of Long-term Use of Antipsychotic Medication to Treat Childhood Schizophrenia is Limited

Few youths with early-onset schizophrenia who are treated with antipsychotic medications for up to a year appear to benefit from their initial treatment choice over the long term, according to results from an NIMH-funded study. The study was published online ahead of print May 4, 2010, in the *Journal of the American Academy of Child and Adolescent Psychiatry*.

### Background

The NIMH Treatment of Early Onset Schizophrenia Study (TEOSS) included 116 youth between 8 and 19 years old, diagnosed with early onset schizophrenia spectrum disorder (EOSS). The TEOSS team randomly assigned the children to eight weeks of either olanzapine (Zyprexa) or risperidone (Risperdal)—both new generation atypical antipsychotics—or to the older conventional antipsychotic molindone (Molan). Response rates after eight weeks of treatment were comparable among the three medications. The results were reported in September 2008.

After the initial 8-week trial, 54 of the 116 participants entered the maintenance treatment phase in which they continued their initial medication and were monitored for up to 44 more weeks of treatment. Only 14 participants completed the additional 44 weeks of treatment.

### Results of the Study

Robert Findling, M.D., of Case Western Reserve University in Cleveland, and the TEOSS team reported that the participants' treatment response tended to plateau during the follow-up, maintenance therapy period, such that most of the children did not improve beyond what they had already achieved during the initial eight weeks of treatment. In addition, most discontinued treatment during the maintenance phase, most commonly due to side effects such as weight gain, anxiety, increases in cholesterol levels, and other metabolic changes, regardless of which treatment they were receiving. None of the three medications appeared to be more effective than the others.

### Significance

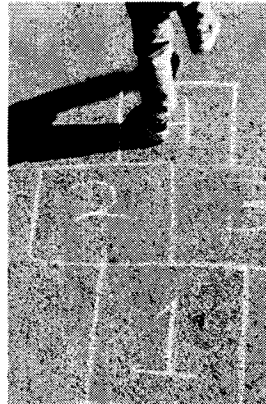
The findings suggest that few youths with EOSS continue treatment on the same antipsychotic medication over the long-term, with lack of effectiveness and adverse effects cited as the most common reasons for discontinuation. Most of those who initially responded to medication were able to at least maintain their initial improvements, but very few participants stayed on the medication through the 12-month study most frequently because of intolerable side effects.

### What's Next

The authors conclude that more effective and safer treatments need to be developed to treat children with EOSS.

### Reference

Findling R, Johnson JL, McClellan J, Frazier JA, Vitiello B, Hamer RM, Lieberman JA, Ritz L, McNamara NK, Lingier J, Hlastala S, Pierson L, Puglia M, Maione AE, Kaufman EM, Noyes N, Sikich L. Double-blind maintenance safety and effectiveness findings from the TEOSS. *Journal of the American Academy of Child and Adolescent Psychiatry*. Available online May 4, 2010.



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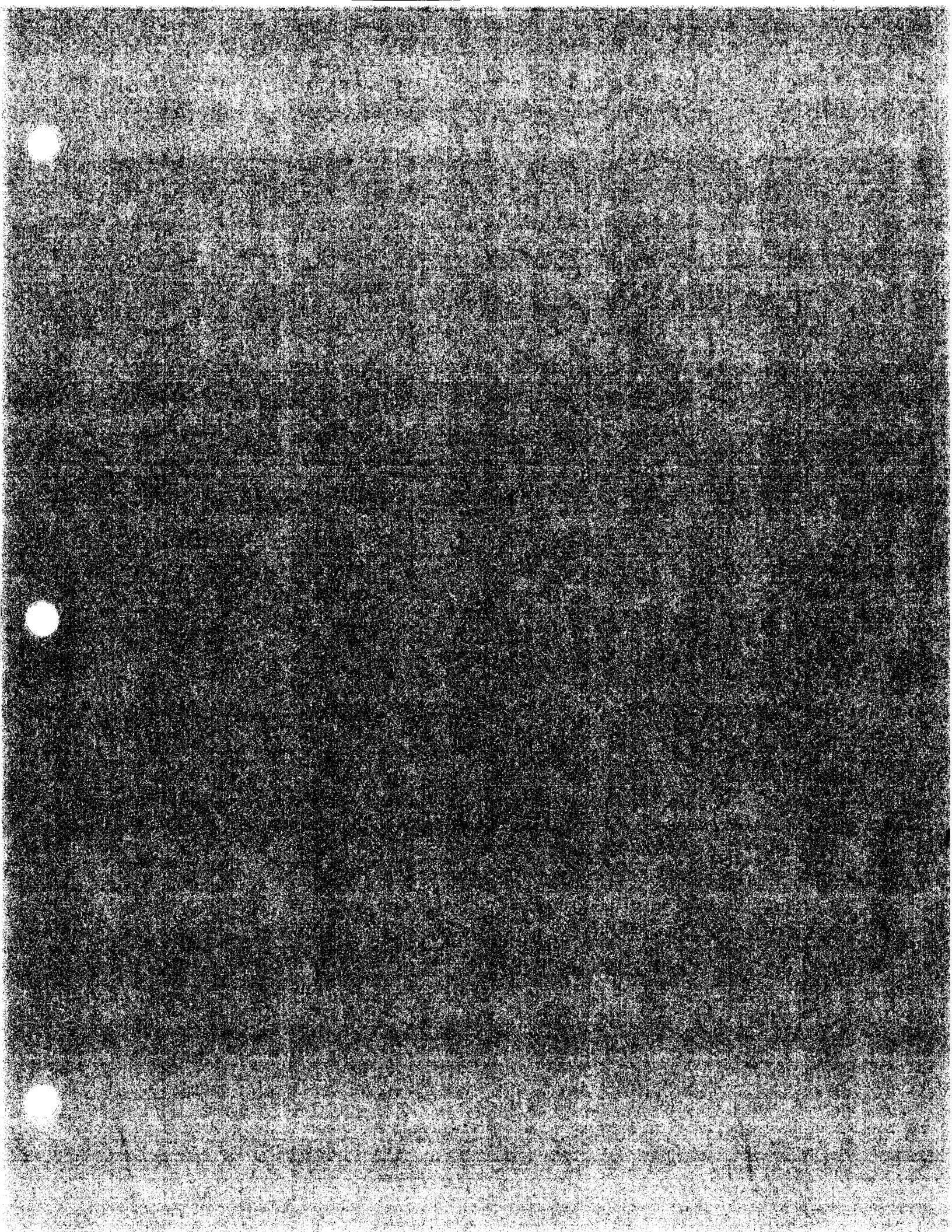
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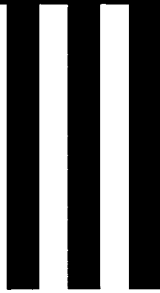
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This page last reviewed: March 31, 2011.



Fifteenth  
in a Series of  
Technical  
Reports



# **Obesity Reduction & Prevention Strategies for Individuals with Serious Mental Illness**

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**October 2008**

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## Executive Summary

Within the general population, obesity is a public health crisis. Approximately 65% of adults in the United State are either overweight or obese and projections are that this percentage could increase to 75% by 2015. If nothing is done to impact this rate of growth, obesity will likely become the leading preventable cause of death. In the U.S., health care expenditures related to obesity and associated medical conditions amount to \$100 billion annually and in 2000, obesity was estimated to contribute to approximately 400,000 deaths. Obesity is an epidemic for the general U.S. population.

Individuals with serious mental illness (SMI) constitute 6 to 8% of the U.S. population and during their lifetime these individuals not only face the challenge of their mental illness but are also affected by a higher prevalence of physical health problems, prominently including overweight and obesity. Overweight and obesity are more prevalent in persons with SMI than in the general population. A combination of factors associated with the mental disorder itself (e.g., poverty, reduced access to medical care and reduced utilization of appropriate care) as well as other environmental factors (e.g., ready access to calorie dense foods and adverse effects on some medications) can all contribute to the increased body weight and adiposity in persons with SMI. This is an epidemic within an epidemic. Related in part to the increased prevalence of overweight and obesity as well as other health-related risk factors, persons with SMI have higher rates of morbidity and premature mortality, and have been estimated to lose between 13 and 30 mean years of potential life expectancy in comparison to the general population. With proper prevention and intervention strategies, persons with SMI and their healthcare providers can aim to minimize the impact of the various contributing factors on body weight and on related medical complications that can otherwise reduce life expectancy.

The National Association of State Mental Health Program Directors' (NASMHPD) Medical Director's Council developed this report through an information review, expert analyses, and extensive discussions at a technical report team meeting held in August 2007. Primary sources of data and information used within this report were gathered from presentations and commentary from content experts and from the published literature on obesity prevalence, incidence, and prevention literature.

This report addresses the following topics:

- 1) Obesity within the population of persons with serious mental illness is an epidemic within an epidemic which requires a public health perspective, including prevention and early intervention across the lifespan;
- 2) Obesity increases the burden of stigma on persons with serious mental illness;
- 3) Persons with serious mental illness are motivated to lose weight and can successfully lose weight;
- 4) Interventions to prevent obesity include behavior modification to reduce calorie intake and increase physical activity and avoiding medications with high weight gain risk where possible;
- 5) Behavioral programs for the treatment of obesity can reduce weight by 15%;

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- 6) Switching from a high weight gain psychiatric medication to a low weight gain psychiatric medication can result in significant weight loss;
  - 7) Antipsychotic and other psychotropic choices should be carefully considered, and switching medications for each individualized patient should be used judiciously because of the potential risks of losing the effectiveness of the antipsychotic medication and increasing troublesome side effects;
  - 8) Adjunctive medications for weight loss can reduce weight by 10% but carries some risk;
  - 9) Surgery for weight loss usually results in substantial reductions in weight but only should be resorted to when there is clear danger to health and other interventions have failed;
  - 10) Use of practical assessment and monitoring guidelines by behavioral health facilities, mental health clinics, psychiatrists, prescribers and other members of the treatment team with surveillance data required to be collected, analyzed, and interpreted as appropriate, and reported;
  - 11) Persons with serious mental illness may be excluded or not informed of obesity interventions; and the
  - 12) Obesity in the following subpopulations:
    - a) Children and Adolescents;
    - b) New consumers with serious mental illness;
    - c) Established Consumers; and the
    - d) Elderly.

This report makes specific recommendations that, when implemented, should substantially reduce the weight and improve the overall health of a population with SMI. These recommendations are made at the National, State, and local levels. They should improve the systems that provide care and treatment to this population. The recommendations are:

1. Encourage research on obesity in people with serious mental illness;
2. Implement national obesity surveillance/monitoring system for persons with serious mental illnesses;
3. Create federal tax incentives, through the use of employer-sponsored pre-tax medical expense accounts, to encourage physical activity;
4. Include weight management interventions and appropriate laboratory tests as a reimbursable service in existing federal healthcare programs;
5. Create a memorandum of understanding (MOU) with NASMHPD and Substance Abuse and Mental Health Systems Administration (SAMHSA) on U.S. Department of Agriculture (USDA) nutritional counseling;
6. Collaborate with federal healthcare agencies on the development of a provider toolkit of best practices for the prevention and reduction of obesity in persons with severe mental illnesses and actively support dissemination of this report in the toolkit through national meetings, Web seminars, continuing education and other available venues;
7. Educate national mental health stakeholder organizations regarding the impact of obesity in the populations they serve and also about available interventions;



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8. Educate mental health professionals on the importance of weight monitoring and weight reduction in people with serious mental illness;
  9. Develop standards of care for mental health providers and work with State Medicaid agencies and other health insurers to ensure that persons with severe mental illness and obesity have access to educational/behavioral, medication switching, medical, and surgical treatment interventions;
  10. Promote opportunities for health care providers, including peer specialists, to teach health lifestyles to families, individuals, and older adults;
  11. Adopt American Diabetes Association (ADA) and American Psychiatric Association (APA) Second Generation Antipsychotic (SGA) monitoring as a standard of care practice for the population with SMI;
  12. Collaborate between the SMHA and the State Health Authority (SHA) to address physical health assessment, health monitoring, and improvement options for the population with SMI;
  13. Bridge the collaboration gap between physical and mental health care;
  14. Monitor mental health consumers with diabetes and related metabolic risk conditions in mental health clinics;
  15. Establish linkages with public health programs and community-based programs in diabetes prevention and control, cardiovascular disease prevention, and healthy weight management;
  16. Offer all consumers preventative intervention strategies targeting weight loss and management;
  17. Implement weight control programs that incorporate nutrition, exercise, and behavioral therapy/interventions for persons with serious mental illness.
  18. Utilize medications with lower risk of weight gain when possible;
  19. Utilize weight loss medication to control weight when medically appropriate, and when other interventions are not feasible or effective;
  20. Consult with the patient, and when medically appropriate, recommend bariatric surgery when all other methods of weight loss have been tried and failed; and
  21. Encourage the development of novel approaches to educate and support weight control through community programs.

The epidemic of obesity in persons with mental illness is a major cause of morbidity and early death and a significant obstacle to wellness and recovery that requires immediate action by policy makers, administrators, healthcare providers, and consumers. Effective interventions are available.

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## Introduction

The National Association of State Mental Health Program Directors (NASMHPD) is a 501(c) (3) organization, operating under a cooperative agreement with the National Governors' Association (NGA), which represents the \$29.5 billion public mental health service delivery system serving 6.1 million people annually in all 50 states, 4 territories, and the District of Columbia.

The Commissioners/Directors of state mental health agencies make up the membership of NASMHPD and are those individuals, many of whom are appointed by the Governors of their respective states, responsible for the provision of mental health services to citizens utilizing the public system of care. There are 220 state operated psychiatric hospitals nationwide and they serve approximately 50,000 patients at any given point in time. Within the structure of NASMHPD are 5 divisions made up of directors of special populations/services (Children/Youth/Families, Older Persons, Forensic, Legal, and Financing/Medicaid) as well as a Medical Directors Council and formal collaborative relationship with National Association of Consumer/Survivor Mental Health Administrators and State Hospital Superintendents. The purpose of these entities is to provide technical assistance and expert consultation to the Commissioners/Directors related to issues specific to those populations/services.

NASMHPD is uniquely suited to identify, assess, and recommend Mental Health policies and best practices. It is the only organization representing the state-level public mental health authorities in every state and territory. NASMHPD's members are unique in that they simultaneously represent a broad array of viewpoints - as funders of health care, regulators of health care, and direct providers of health care - and, must balance the interests of all three viewpoints. NASMHPD and its membership have a proven track record of a bringing together a wide and diverse array of stakeholders to address the complicated issues involved in behavioral health, primary health care and public health programming. A number of stakeholders are consistently included in such policy development and implementation endeavors including: primary consumers, family members, advocates, providers, professional organizations, accreditation bodies, federal partners, and sister organizations that represent substance abuse, behavioral health, and health. NASMHPD has built coalitions that have succeeded in addressing and moving the field forward on many new programs including co-occurring disorders; the reduction/elimination of seclusion and restraint; trauma; smoking cessation; promotion of evidence based practices; mortality related to serious mental illness (SMI); and the integration of mental health with primary care.

The NASMHPD Medical Directors Council, which conducts its work under the auspices of the National Association of State Mental Health Program Directors (NASMHPD), was authorized by the Board of Directors in 1995 and its membership includes medical directors of state mental health authorities from across the country. The NASMHPD Medical Directors Council has developed over 13 technical papers (8 over the past 4 years) addressing key areas of clinical policy for the public mental health system including Polypharmacy, Pharmacy Utilization Management, Seclusion and Restraint,



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Prevention and Integrating Primary Care and Behavioral Health Systems and Reducing Excess Mortality in Persons with Severe Mental Illness. These technical papers have guided recent policy changes and practices in the public mental health system.

The NASMHPD Medical Directors Council developed this fifteenth technical report through a review of materials and extensive discussions at a work group meeting held August 9-10, 2007 in Kansas City, Missouri. Primary sources of data and information used within this report were gathered from presentations and commentary from work group meeting participants, published literature on obesity prevalence, incidence, and prevention literature distributed prior to the meeting, and materials distributed at the meeting.

Participants included State Mental Health Authority (SMHA) medical directors and commissioners as well as leadership from the Centers for Disease Control and Prevention, the Substance Abuse and Mental Health Services Administration (SAMHSA), the University of Pittsburgh School of Medicine, Washington University School of Medicine, Yale University and Connecticut Mental Health Center, the University of Medicine and Dentistry of New Jersey/University Behavioral HealthCare, and other technical experts. A complete list of participants is included as Attachment A.

The work group reviewed statistics on obesity in both the general population and the population with SMI, current literature on obesity and obesity prevention, and consulted with experts in mental health and obesity prevention activities.

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## Definitions

The Fourth edition of the American Heritage Dictionary of the English Language defines **Obesity**, as “the condition of being obese or increased body weight caused by excessive accumulation of fat.” While vivid, these definitions are not helpful in actually measuring the accumulation of excess weight. Several methods are available to assess overweight and obesity. The two methods below are practical and easy-to-use and are recommended in the National Heart, Lung, and Blood Institute’s (NHLBI) expert guidelines on identification, evaluation, and treatment of overweight and obesity in adults:

1. **Body Mass Index (BMI)** is a practical indicator of the severity of obesity. BMI is a direct calculation based on height and weight, regardless of gender and it can be calculated from existing tables (see attachment B). The resulting number is considered a largely reliable indicator of whether a person’s weight and adiposity is within a healthy range. The BMI is considered an indirect measure of body fat or adiposity. BMI does have limitations; for example, BMI can overestimate adiposity in a person who is very muscular and can underestimate body fat in person who have lost muscle mass (i.e., older adults).

In adults, BMI’s are categorized based on an absolute number according to the classification below:

- BMI < 18.5 kg/m<sup>2</sup> underweight;
- BMI 18.5-24.9 kg/m<sup>2</sup> normal weight;
- BMI 25.0-29.9 kg/m<sup>2</sup> overweight;
- BMI 30.0-34.9 kg/m<sup>2</sup> mild obesity;
- BMI 35.0-39.9 kg/m<sup>2</sup> moderate obesity; and
- BMI > 40.0 kg/m<sup>2</sup> extreme obesity.

The predictive value of specific BMI numbers for morbidity and mortality risk can vary by ethnicity. For example, BMI criteria for overweight and obesity in Asian populations, including Indian Asians, has been modified by the National Heart, Lung, and Blood Institute (NHLBI) and World Health Organization (WHO), based on evidence for higher morbidity and mortality risk at lower BMIs in Asian populations, compared to Caucasians for example. Most commonly, the threshold for the definition of overweight in Asian populations is modified to 23 and the threshold for obesity to 25 (compared to 25 and 30, respectively, described above).

In children, BMI is routinely interpreted by graphing height and weight on age and gender-specific growth charts. Children’s BMI percentiles are thereby calculated describing an individual child’s BMI relative to children of the same age and gender.

Using BMI as a public health standard for measuring obesity, the NHLBI has issued guidelines on the identification, evaluation, and treatment of overweight and obese adults. These standards offer solid evidence that the risk for cardiovascular disease, type 2 diabetes, and other diseases tends to increase progressively as BMI increase

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progressively from values less than to greater than 25. Risk of mortality tends to increase progressively as BMI increases from at least 30.

2. **Waist circumference** is emerging as a potentially more valid and reliable indicator of central or truncal adiposity and medical risk compared to BMI, with BMI offering no accounting of the true distribution of adiposity across body regions (e.g., truncal versus peripheral adiposity). Findings from some studies (Palamara, 2006) have suggested that waist circumference is a better predictor of risk for cardiovascular disease, type 2 diabetes, and other metabolic risk-related conditions, compared with BMI.

While a lack of uniformity about appropriate abdominal landmarks for the measurement of the “waistline” have permeated the research and could undermine the reliability of measurements in clinical practice; the National Heart, Lung, and Blood Institute (NHLBI) of the National Institutes of Health has issued new guidelines standardizing the measurement of both the waist and hip. To measure waist circumference, locate the upper hip bone and the top of the right iliac crest. Place a measuring tape in a horizontal plane around the abdomen at the level of the iliac crest. Before reading the tape measure, ensure that the tape is snug, but does not compress the skin, and is parallel to the floor. The measurement is made at the end of a normal expiration. Waist measurement should be done at the iliac crest defined as the narrowest circumference between the ribs and the umbilicus.

Current guidelines suggest that a waist measurement of greater than 40 inches in men and greater than 35 inches in women is associated with increased cardiometabolic risk.

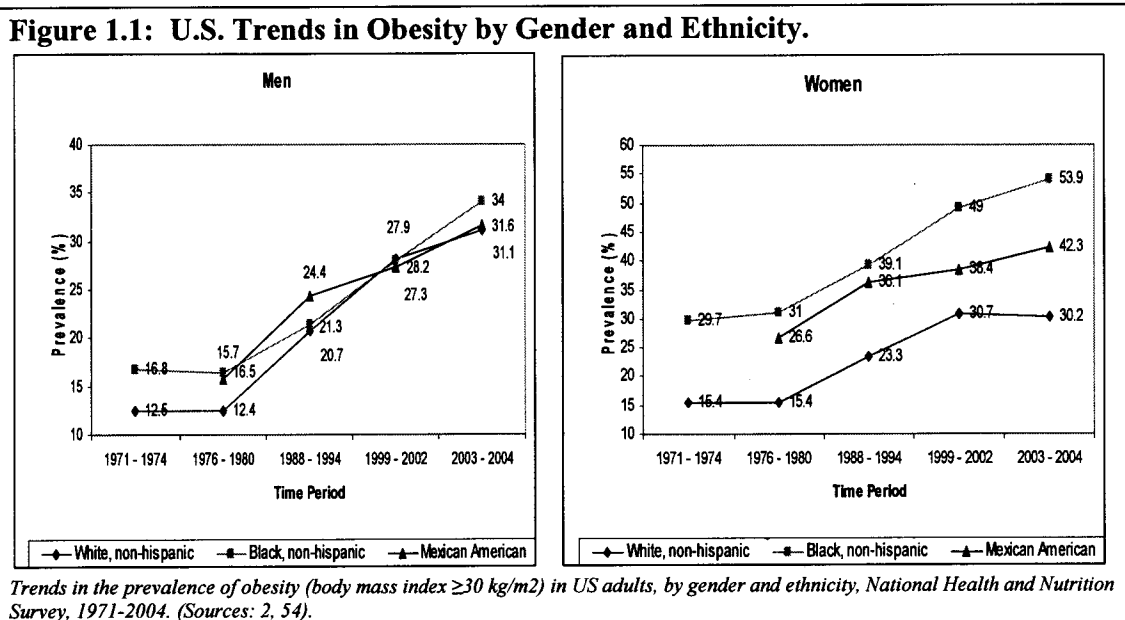
For additional information on waist circumference refer to attachment C.

# Background

## Trends:

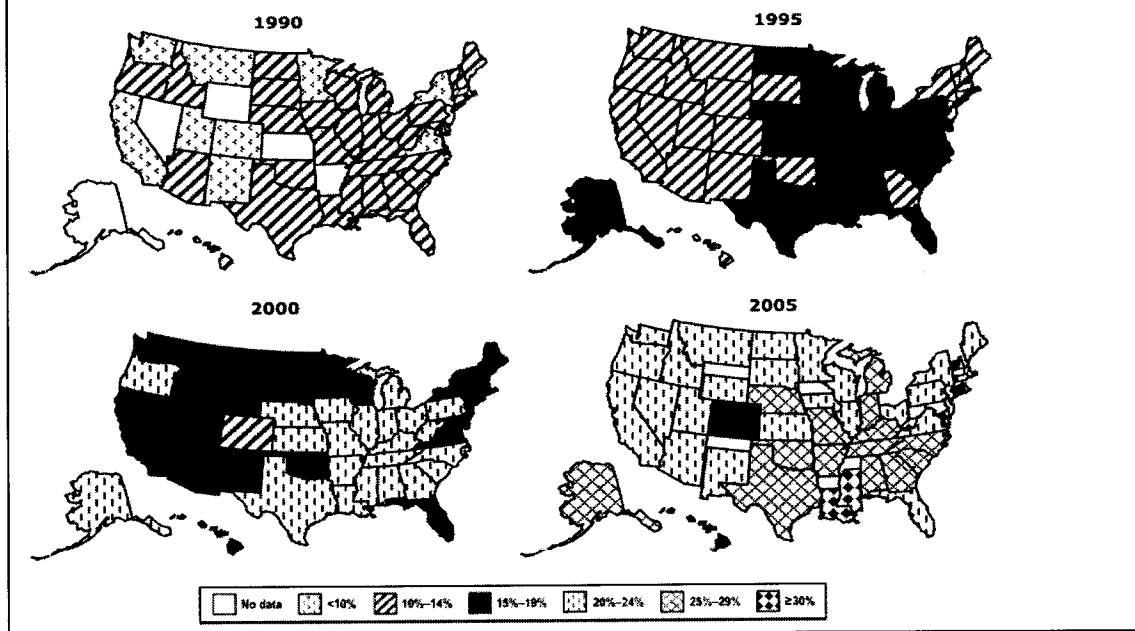
“Obesity is a public health crisis” (Wang, 2007). It is a chronic disease that has serious health consequences. In the general population rates of obesity worldwide and within the United States continue to grow at epidemic rates. Worldwide, it is estimated that more than 300 million people are obese (DeMaria, M.D.). Approximately 65% of adults in the United States are either overweight or obese (National Health and Nutrition Survey [NHANES] 1999-2002). This percentage has steadily increased by approximately 40% over the past three decades compared to previously published NHANES data. If the rates of obesity and overweight continue at this pace, by 2015, 75% of adults and nearly 24% of U.S. children and adolescents will be overweight or obese (Youfa Wang, 2007).

Figure 1.1 below displays the historic trends in the prevalence of obesity by gender and ethnicity from 1971 to 2004.



Within the United States, plotted over time, regional differences become apparent. Figure 1.2 below from the Centers for Disease Control and Prevention, displays the regional differences from 1990 to 2005.

**Figure 1.2: U.S. Regional Differences in Obesity Prevalence.**

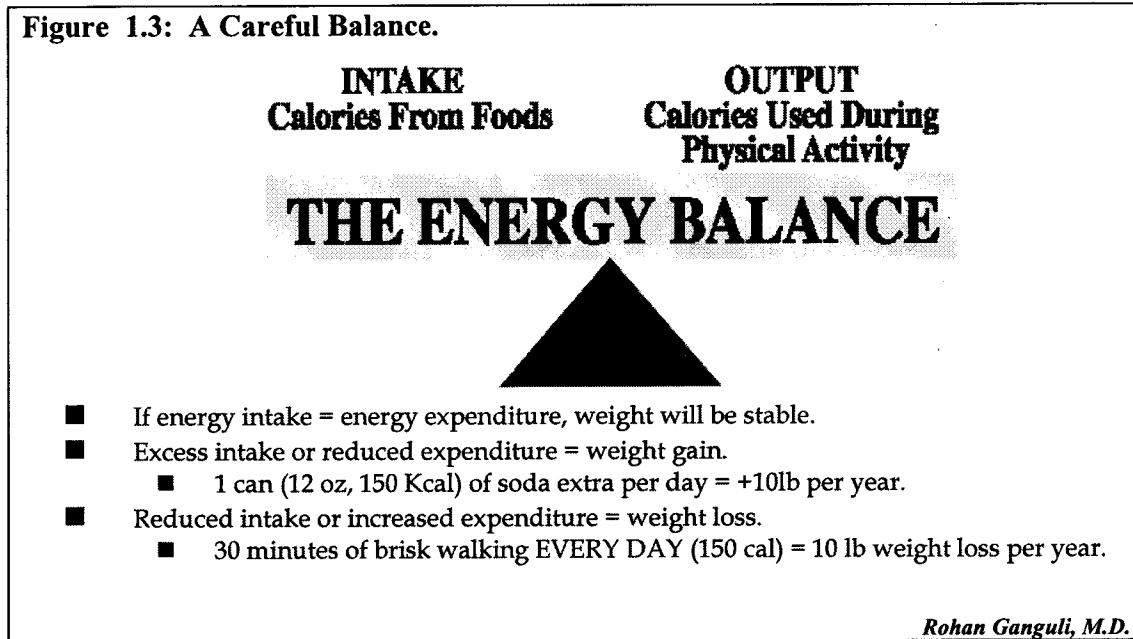


**Cause:**

Obesity is a complex, multifactorial, and chronic disease that develops from an interaction of genotype and the environment. According to NHLBI expert consensus, the understanding of how and why obesity develops is incomplete, but involves the integration of social, behavioral, cultural, physiologic, metabolic and genetic factors. And some risk factors are more strongly linked to specific ethnic groups.

There are generally two hallmark behaviors that account for obesity: too much calorie consumption and too little calorie expenditure. Figure 1.3 is a simplified visual representation of the careful balance between caloric intake and output (physical activity) to maintain a consistent weight. A shift in either of these can cause an individual to gain or lose weight.

**Figure 1.3: A Careful Balance.**



In addition to behaviors there are a variety of other risk factors, such as environmental conditions that affect physical activities (such as, elevators & escalators), genetics, diseases (for example, Cushing’s disease or polycystic ovary syndrome), or drugs (such as steroids that can cause weight gain).

Some obesity experts state that we live in an “obesigenic environment,” and that declining physical activity and increases in the consumption of energy dense foods (Foods containing more than 225-275 kcal per 100g) is contributing to the rise in weight problems. Side effects of psychotropic medications can add to this problem.

**Health Consequences:**

Researchers indicate that if nothing is done to impact its growth rate, obesity will likely become the leading preventable cause of death. Within the United States, “obesity has become an epidemic condition” (DeMaria, M.D.).

The U.S. Surgeon General’s Call to Action notes that the “primary concern of overweight and obesity is one of health and not appearance.” This increasing overweight and obese population is troubling because of the well-established health risks that are associated with these conditions. According to the “Surgeon General’s Call to Action to Prevent and Decrease Overweight and Obesity,” obesity is connected to an increase in the following health risks:

- Premature death;
- Type 2 diabetes;
- Heart disease;
- Stroke;
- Hypertension;

- 
- Gallbladder disease;
  - Osteoarthritis (degeneration of cartilage and bone in joints);
  - Sleep apnea;
  - Asthma;
  - Cancer (endometrial, colon, kidney, gallbladder, and postmenopausal breast cancer);
  - High blood cholesterol;
  - Complications of pregnancy;
  - Menstrual irregularities;
  - Hirsutism (presence of excess body and facial hair);
  - Stress incontinence (urine leakage cause by weak pelvic-floor muscles);
  - Increased surgical risk;
  - Psychological disorders such as depression; and
  - Psychological difficulties due to social stigmatization.

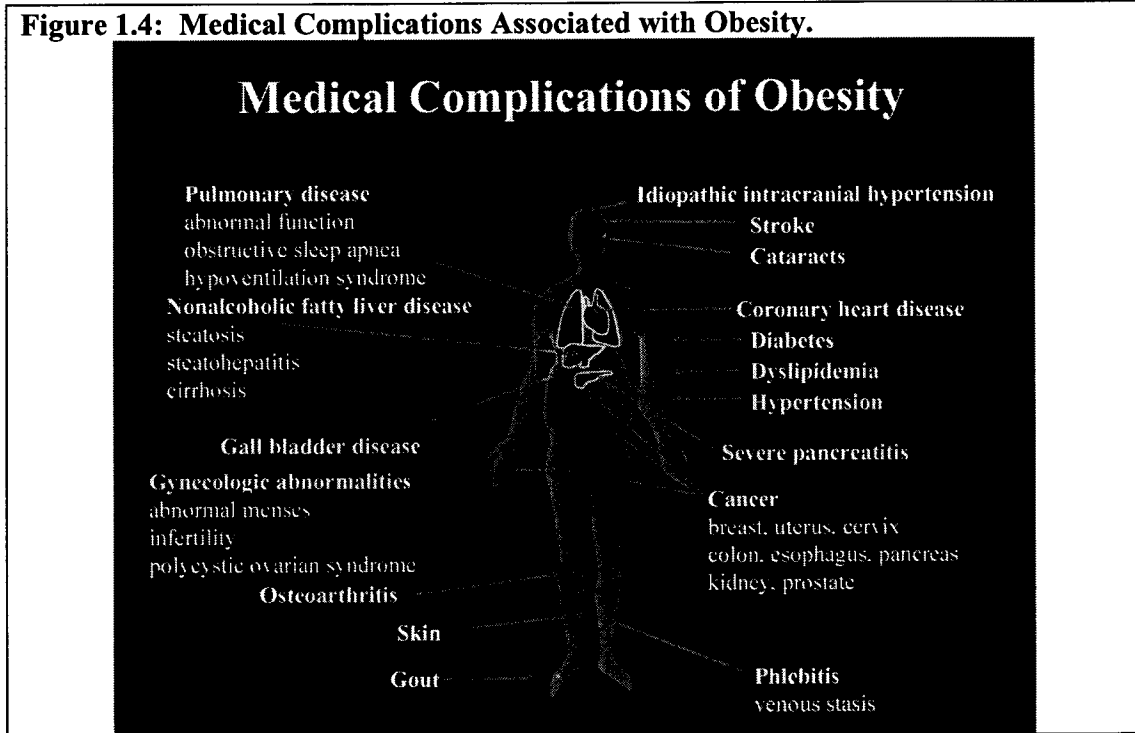
The National Heart, Lung, and Blood Institute (NHLBI)<sup>1</sup> recognize being overweight and obesity as chronic diseases, and have published guidelines for the identification and treatment of these conditions.

As depicted in Figure 1.4, patients who are overweight or obese are at an increased risk of acquiring other serious, possibly chronic conditions. These include, but are not limited to hypertension, Type 2 diabetes, hyperlipidemia, sleep apnea, mellitus, coronary heart disease, asthma, hypothyroidism, Cushing's syndrome, obstructive pulmonary disease, emphysema, stroke, as well as multiple forms of cancer and orthopedic problems” (DeMaria, M.D.; Schnee, 2006).

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<sup>1</sup> Similar information is available from the National Institute of Health (NIH).

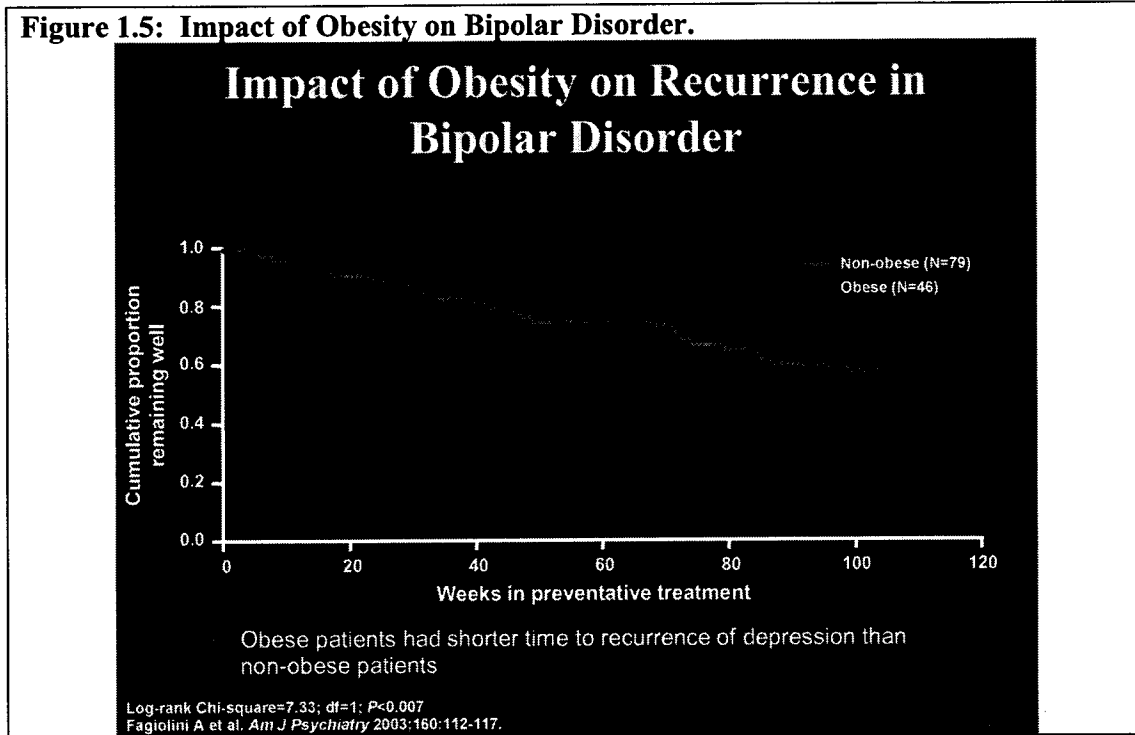
**Figure 1.4: Medical Complications Associated with Obesity.**



Persons with obesity have been found to experience depression more often than non-obese persons (Fagiolini, 2003). Illustrated in figure 1.5 below, individuals with bipolar disorder have been observed to have a shorter time to recurrence of depression than people with bipolar disorder who were not obese.



**Figure 1.5: Impact of Obesity on Bipolar Disorder.**



Obesity also has additional consequences, including limitations in activities of daily living (ADL's) and stigmatization.

**Stigmatization:**

In addition to poorer health and decreased physical functional capacity, obese individuals are also limited by social stigma in our society. There is a commonly held belief of our society that overweight and obese people are lazy and weak-willed. Under this misperception, if overweight persons just had willpower, they would push themselves away from the table and not be overweight. This view is unfortunately shared both by some members of the public and even by some health professionals charged with caring for these individuals. When persons with obesity who believe that their health care providers look down upon them, they may not seek necessary medical care (Carr, 2005). People with co-occurring mental illness and obesity may face a “double whammy:” stigma associated with the mental illness and stigma related to body weight.

While most public health interventions that target persons with obesity focus on their lifestyles and health behaviors, Carr found that interventions should also focus on the practices of “those who do the discriminating.” Public education about the distinctive challenges facing obese persons and about the pervasiveness of prejudicial attitudes toward them may help to reduce unfair treatment of severely overweight Americans.

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### **Societal Costs:**

When assessing the economic consequences of obesity, both direct and indirect costs of illness need to be considered. “Direct costs are the value of resources (personal health care, hospital care, physicians’ services, nursing home care, other professional services, and drugs) that could be allocated to other uses in the absence of disease. Indirect costs are the value of the lost output because of cessation or reduction of productivity caused by morbidity and mortality” (Colditz, 1992). Cost-of-illness studies have suggested variable estimates of the percentage of total health care costs attributable to obesity.

Prevalence-based cost of illness studies of obesity show that “aggregate economic costs associated with specific obesity related diseases have demonstrated that the annual burden to society totals in the billions of dollars, representing 5.5% to 7.8% of the total health care expenditure in the United States” (Kortt et al, 1998 citing work completed by Colditz, 1992).

“In the United States, health care expenditures related to obesity and associated medical conditions amount to \$100 billion annually and in 2000, obesity was estimated to contribute to approximately 400,000 deaths. It has been suggested that in the 21<sup>st</sup> century, increasing rates of obesity may lead to a decline in overall life expectancy in the United States” (DeMaria, M.D.).

Commenting on the impact of obesity in the workplace, Schmier and colleagues have noted that obese employees use more sick leave, have higher health care costs and have more workplace injuries (Schmier, et al, 2006).

In their report, the *Economic Burden of Obesity in Youths Ages 6-17 Years; 1979-1999* published in the May 2002 issue of *Pediatrics*, Wang, Guijing and Dietz reported that obesity-associated annual hospital costs increased from \$35 million from the 1979 - 1981 reporting period to \$127 million during the 1997 - 1999 reporting period. Compared to overall costs for discharges, this represents an increase from 0.43% in 1979-1981 to 1.7% in 1997-1999. In another study of overweight children, Hampl and associates found that health care expenditures were significantly higher for obese children when compared to normal weight children (Hampl et al, 2007).

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## Special Populations

### Children and Adolescents:

The U.S. Department of Health and Human Services reports that 9 million children, 16% of the population, within the United States are overweight. According to Youfa Wang, MD, PhD, lead author of a study by researchers at the Johns Hopkins Bloomberg School of Public Health, 34% are at risk of becoming overweight in 2003-2004. White children and adolescents had the lowest prevalence of overweight and being at risk of overweight compared with their black and Mexican counterparts (Wang, 2007). The Institute of Medicine reports that 24% of African American and Hispanic children are obese.

The incidence of overweight children in the United States has steadily increased in the same manner as the adult population over the past decades. Since the 1980's, the estimated percentage of overweight children and adolescents has more than doubled (Schnee, 2006).

Excess weight in childhood and adolescence can predict overweight in adults. According to the U.S. Surgeon General's Call to Action, overweight adolescents have a 70% chance of becoming overweight or obese adults. Furthermore, this problem is intensified by demographic disparities. Low-income 2 to 5 year olds represent 18% of the statewide average number of overweight children (Pennsylvania, 2006).

The Institute of Medicine reports that obesity in children places them at risk for serious health complications. Approximately 60% of obese children in the U.S. had at least one risk factor for cardiovascular disease; 25% had two or more risk factors. In the past, physicians considered Type 2 diabetes an adult affliction that was rare in children. Now, girls born in the United States in the year 2000 have a 30% lifetime risk of developing Type 2 diabetes. The risk increases to 40% for boys born in the same year. The risk is even higher for minorities. Some experts have determined that childhood obesity also quickly increases the severity and prevalence of asthma (Pennsylvania, 2006).

Obesity in youth has a variety of mental health consequences. The University of Medicine and Dentistry of New Jersey reports that obese girls ages 13 to 14 are four times more likely to experience low self-esteem than non-obese girls. An article from the January 2000 publication *Pediatrics*, entitled "Childhood Obesity and Self-Esteem" reports that obese boys and girls with low self-esteem had higher rates of loneliness, sadness, and nervousness. According to the article these children were more likely to smoke and drink alcohol compared with obese children with normal self-esteem. Depression, often an outcome of low self-esteem, affects as many as 750,000 teens in the U.S. Finally, according to an August 2003 article entitled, "Associations of Weight-Based Teasing and Emotional Well-being Among Adolescents," from the *Archives of Pediatrics and Adolescent Medicine* children who were teased about being overweight were more likely to have a poor body image, low self-esteem, and symptoms of depression. Twenty-six percent of teens who were teased at school at home reported they had considered suicide, and 9% had attempted suicide. In the youth population, a higher BMI correlates with victimization in younger children and perpetration in older youth

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(Janssen, 2004). There is a higher prevalence of disruptive behavior, including Oppositional Defiant Disorder (ODD) and chemical dependency. In addition, anxiety disorders, combined with poor social skills have been found to be prevalent (Villa, 2004).

### **Older and Disabled Adults:**

The percentage of older adults who were obese increased from 16.4% in 1997 to 21.4% in 2002 (Doshi, 2007). Doshi's study of the Medicare population also indicated that this percentage also increased from 32.5% in 1997 to 39.3% in 2002 for the disabled population. Analysis of the data between 1997 and 2002 indicated that the prevalence of obesity among all beneficiaries increased by 31%.

Doshi's study indicated that the health consequences of obesity were numerous. In both the aged and disabled groups, obese beneficiaries were significantly more likely than normal weight beneficiaries to have one of the five examined medical comorbidities. The prevalence of Type 2 diabetes was almost three times higher in obese aged beneficiaries and two times higher in obese disabled beneficiaries than in their normal weight counterparts.

Ninety-three percent obese aged and 84.5% of disabled beneficiaries had at least one comorbidity (Doshi, 2007). The prevalence of at least one comorbidity among beneficiaries with a BMI  $\geq 35$  was similarly high. In both groups, more than two of five obese beneficiaries and more than half of those with a BMI  $\geq 35$  had three or more of these comorbidities. In addition, almost one-third of obese aged and two thirds of obese disabled beneficiaries reported fair to poor health. Obese beneficiaries were significantly more likely to report an ADL limitation than normal-weight beneficiaries in both the aged and disabled groups.

### **Women:**

Globally, women generally have higher rates of obesity than men do, although men may have higher rates of being overweight. According to the American Obesity Association, 62% of women between 20 and 76 years are overweight, and 34% are obese.<sup>2</sup> Additionally, women are more likely to become obese as they age. Obesity among women ages 35 to 64 has increased in prevalence 2% per year from 1960 to 2000. Low-income women in minority populations are most likely to be over weight; black (non-Hispanic) women have the highest prevalence of overweight (78%) and obesity (50.8%). Forty to Sixty-Five percent of women report having sedentary lifestyles, an obvious contributor to obesity.

As demonstrated by Figure 1.6 below, women, in this large study involving people with schizophrenia, had higher rates of obesity than men and have higher rates of the complications brought by obesity.

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<sup>2</sup> [http://obesity1.tempdomainname.com/subs/fastfacts/obesity\\_women.shtml](http://obesity1.tempdomainname.com/subs/fastfacts/obesity_women.shtml)

**Figure 1.6: Obesity Rates in Men & Women.**

**Comparison of Metabolic Syndrome and Individual Criterion Prevalence in Fasting CATIE Subjects and Matched NHANES III Subjects**

	Males			Females		
	CATIE	NHANES	P	CATIE	NHANES	P
	N = 509	N = 509		N = 180	N = 180	
Metabolic Syndrome Prevalence	36.0%	19.7%	.0001	51.6%	25.1%	.0001
Waist Circumference Criterion	35.5%	24.8%	.0001	76.3%	57.0%	.0001
Triglyceride Criterion	50.7%	32.1%	.0001	42.3%	19.6%	.0001
HDL Criterion	48.9%	31.9%	.0001	63.3%	36.3%	.0001
BP Criterion	47.2%	31.1%	.0001	49.6%	26.8%	.0001
Glucose Criterion	14.1%	14.2%	.9635	21.7%	11.2%	.0075

McEvoy JP, et al. *Schizophrenia Res.* 2005;80:19-32

Health consequences for obese women are particularly serious.<sup>3</sup> Obese women have four times the risk of osteoarthritis as other women. Obese women also have a higher risk for developing breast cancer after menopause. Women who gain more than 45 pounds after reaching adulthood are twice as likely to develop breast cancer as women who do not gain weight. Similarly, obese women have a significantly higher risk of getting endometrial cancer than non-obese women. For both genders, but particularly for women, higher BMI is correlated with cardiovascular disease. Obesity is also the best predictor of gallbladder disease for women, where obese women have double the risk of women of normal weight. Obesity can impact a woman's ability to have children, and can affect ovulation, fertility treatment success, and pregnancy rates. Some studies have found that neural tube defects are more frequent among women with higher weight before pregnancy; obesity also carries a higher risk of pregnancy hypertension, gestational diabetes, urinary infection, and Cesarean section delivery. Obese women thought to be infertile actually have higher rates of successful pregnancy terms, longer labors, and induced labor.

While all obese people experience stigma and discrimination, obese women experience this significantly more than obese men; for those women who reduce obesity through surgery, unemployment rates fall from 84 to 64%.<sup>4</sup> The societal importance placed on thinness as a measure of beauty can make establishing and maintaining relationships more difficult for obese women.

<sup>3</sup> [http://obesity1.tempdomainname.com/subs/fastfacts/obesity\\_women.shtml](http://obesity1.tempdomainname.com/subs/fastfacts/obesity_women.shtml)

<sup>4</sup> [http://obesity1.tempdomainname.com/subs/fastfacts/obesity\\_women.shtml](http://obesity1.tempdomainname.com/subs/fastfacts/obesity_women.shtml)

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**Racial/Ethnic Groups:**

The American Obesity Association states that in comparison to white Americans, minority populations such as African Americans and Hispanic Americans have higher rates of obesity, whereas Asian Americans show relatively low levels of obesity.<sup>5</sup> African Americans cultural dynamics associated with food choices, physical activity, and cultural norms around excess weight can play a role in failed weight loss. Generally, African Americans get less exercise than white populations, particularly among women.

American Indian and Alaska Native populations show particularly high rates of being overweight or obese; over 30% are obese, and among those ages 45 to 77 years, that number increase to over 39% for men and 43% for women.<sup>6</sup> The American Obesity Association reports that, “44 to 60 percent of Native American men report having sedentary lifestyles, an obvious contributor to obesity.”

With regard to gender, black women (51%) and Mexican American men (30%) have the highest rates of obesity.<sup>7</sup> Overall, lower socioeconomic status populations have a much higher likelihood of being obese. Specifically, women and minorities of lower socioeconomic status are affected by obesity at higher rates.

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<sup>5</sup> [http://obesity1.tempdomainname.com/subs/fastfacts/Obesity\\_Minority\\_Pop.shtml](http://obesity1.tempdomainname.com/subs/fastfacts/Obesity_Minority_Pop.shtml)

<sup>6</sup> <http://www.americanheart.org/downloadable/heart/1014745957045FS02AM02WEB.pdf>

<sup>7</sup> [http://obesity1.tempdomainname.com/subs/fastfacts/Obesity\\_Minority\\_Pop.shtml](http://obesity1.tempdomainname.com/subs/fastfacts/Obesity_Minority_Pop.shtml)

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## Persons with Serious Mental Illness

Adult persons with a serious mental illness (SMI) are the core focus of this report and can be defined as those aged 18 years or older with a diagnosable mental disorder that is so long lasting and severe that it seriously interferes with their ability to take part in major life activities. According to the 2004 U.S. Census, about 1 in 17 adults suffer from a serious mental illness. Illnesses such as schizophrenia and bipolar disorder affect an estimated 8.1 million American adults yearly (NIMH, 2006). During their lifetime these individuals not only face the challenge of their mental illness but are also affected by a higher prevalence of physical health problems, such as obesity.

Obesity is more prevalent in persons with SMI than in the general population (Hoffman, 2005). A study by Strassnig, Brar, and Ganguli, published in 2003 in the *Schizophrenia Bulletin* reviewed 276 patients with schizophrenia in Pittsburgh and found that:

- 19% were of normal weight with a BMI within the range of 19 to 25;
- 22% were overweight with a BMI within the range of 25 to 30; and
- 59% were obese with a BMI greater than 30.

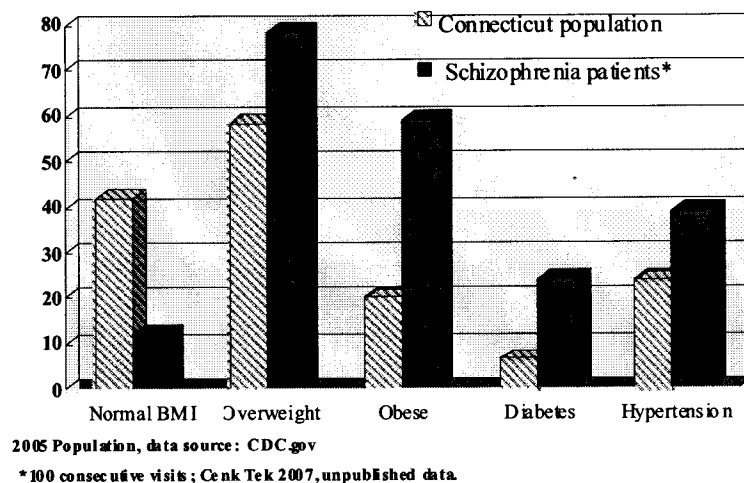
Several other studies have addressed the prevalence of obesity in the population of patients with severe mental illness such as schizophrenia or bipolar disorder. Allison et al (1999) found that 42% of a group of individuals with schizophrenia had a BMI of 27 or greater, compared to 27% of the general population. In that study, the difference was mostly due to the high proportion of women with schizophrenia who are obese. In another study (Homel, 2002), women with schizophrenia had higher mean BMI's compared with non-psychiatric controls whereas men with schizophrenia were similar to controls.

In the Northern Finland 1966 cohort study, rates of abdominal obesity and metabolic syndrome in patients with schizophrenia were 42% and 19.4%, respectively, as compared to health members of the cohort, which were 13% and 6%, respectively (Saari et al., 2006). In the same study, the probability of changing from underweight or normal during adolescence to overweight or obese in adulthood was 3.01 in females, and 2.24 in males as compared to the healthy members of the cohort. Physical inactivity and high alcohol consumption were the common risk factors for both sexes (Hakko et al, 2007). Another recent study found that the prevalence of overweight, obesity, and diabetes mellitus were significantly higher in patients with severe mental illness (schizophrenia, schizoaffective disorder, bipolar disorder and major depressive disorder) as compared to those in the Kentucky adult general population (Susce et al., 2005). The odds ratio for overweight was 1.7 and the odds ratio for obesity was 2.6. The results were particularly worrisome since Kentucky is one of the states with the highest prevalence of overweight people. Keck et al (2004) reviewed 45 studies of patients with bipolar disorder and found that the results of these studies indicated that the overall prevalence of overweight and obesity was higher in these patients than in control populations. Several risk factors for weight gain and obesity in patients with bipolar disorder were identified: excessive carbohydrate consumption, low rate of exercise, and treatment with medications associated with weight gain. In the 1460 patient CATIE study, the prevalence of metabolic syndrome among

patients with chronic schizophrenia was 36% for males and 52% for females as opposed to the rates in general population, which were 20% and 25% respectively. In the same study mean BMI for females was 33 and for males was 29 kg/m<sup>2</sup>; the rates for abdominal obesity were 73% for males 37% for females as compared to 57% and 25% respectively in the US population (McEvoy et al. 2005). In the CATIE study, obesity was associated with significantly increased outpatient medical costs (25% more), even after controlling for demographic characteristics and medical comorbidity (Chwastiak et al, 2006). A recent study of schizophrenia patients conducted in the state of Connecticut revealed an overweight rate of 78% vs. 58.2% in the population, and an obesity rate of 59% vs. 20.1 % in the population (See figure 2.0 below).

**Figure 2.0: Compounding Affects of Risk Factors.**

**Weight Status, Diabetes, and Hypertension Rates of Yale - CMHC Schizophrenia Patients**



Additional studies indicate that the risk of obesity in persons with SMI vary by diagnosis. Those with:

- Depression have a 1.2 to 1.8 increased likelihood of being obese;<sup>8</sup>
- Bipolar disorder have a 1.5 to 2.3 increased likelihood of being obese;<sup>9</sup> and
- Schizophrenia have a 3.5 increased likelihood of being obese.<sup>10</sup>

A combination of the mental disorder itself and some of the medications used to treat it, a sedentary lifestyle, poor nutrition, overeating, smoking and substance abuse, irregular and inadequate sleep, lack of access to adequate medical care, including poor coordination of

<sup>8</sup> Simon GE et al. (July 2006). Arch Gen Psychiatry. Vol. 63, No. 7, pp. 824-30 and Petry et al. (April 2008) Psychosom Med. Vol. 70 No. 3, pp.288-97.

<sup>9</sup> Simon GE et al. (July 2006). Arch Gen Psychiatry. Vol. 63, No. 7, pp. 824-30 and Petry et al. (April 2008) Psychosom Med. Vol. 70 No. 3, pp.288-97.

<sup>10</sup> Coodin et al. (2001). Can J Psychiatry. Vol. 46, pp. 549–55.



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care between multiple providers, and lack of access to nutrition and exercise programs have contributed to increased weight gain in persons with SMI (Hoffman, 2005). Studies suggest that persons with SMI tend to have a diet consisting of an increased quantity and caloric intake, diet composition – consuming foods low in fiber, high in fat, with fewer fruits and vegetables primarily because of elevated rates of poverty in this population.<sup>11</sup> In addition, inactivity among persons with SMI tend to contribute to rates of obesity. Studies indicate that the odds of inactivity in persons with SMI vary by diagnosis. Those with:

- Severe mental illness have a 1.5 increased likelihood of being inactive;<sup>12</sup>
- Bipolar disorder have a 3.2 increased likelihood of being inactive;<sup>13</sup> and
- Depression have a 2.0 increased likelihood of being inactive.<sup>14</sup>

Persons with SMI have higher rates of morbidity and premature mortality compared with the general population. As stated earlier, obesity risk factors can contribute to the increased morbidity and mortality. Research suggest that “this population loses...13 to over 30 years of life compared with their nonpsychiatric cohorts” (Vreeland, 2007).

The National Alliance on Mental Illness (NAMI) has identified that persons with SMI are at a greater risk of developing adult onset, or Type 2 diabetes (Duckworth, 2007). This type of diabetes can sometimes be prevented by exercise and healthy eating habits, and maintaining normal body weight, but takes awareness and motivation on behalf of the individual. Usually, many risk factors combine, leading to a slowly developing problem. These risk factors include:

**Biological/Genetic:**

- There is some evidence that individuals with some psychiatric conditions may have a higher genetic risk of developing diabetes.
- Antipsychotic medications, including some second generation antipsychotics, carry a risk of weight gain, a major contributor of diabetes. Not all antipsychotics, however, confer the same relative risk. Antipsychotics commonly cause sedation, predictably leading to reduced caloric expenditure, and some medications may also reduce satiety or increase hunger, causing some people to lose the feeling of fullness they used to get at the end of an ordinarily sufficient meal. The magnitude of these effects varies across individual medications, for example with medications that have more histamine type 1 receptor antagonism having larger adverse effects on body weight. In addition, some psychotropic medications may directly alter insulin sensitivity or lipid metabolism, contributing to insulin resistance or dyslipidemia, risk factors for hyperglycemia, type 2 diabetes mellitus, and cardiovascular disease.

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<sup>11</sup> Strassnig, Brar and Ganguli. (2003). *Schizophr Res.* Vol. 62, pp. 73–6, McCreadie et al. (2003). *Br J Psychiatry.* Vol. 183, pp. 534–9, Brown et al. (1999). *Psychol Med.* Vol. 29, pp. 697–701, Lin, B. (February 2005). USDA, Economic Research Service, Kant. (Feb. 2007). *AKPublic Health Nutr.* Vol. 2, pp. 158-67.

<sup>12</sup> Daumit et al. (Oct. 2005). *J Nerv Ment Dis.* Vol. 193, No. 10, pp. 641-6.

<sup>13</sup> Elmslie et al. (June 2001). *J Clin Psych.* Vol. 62, No. 6, pp. 486-91.

<sup>14</sup> Farmer et al. (Dec. 1988). *Am J Epidemiol.* Vol. 128, No. 6, pp. 1340-51.

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- Negative symptoms and co-occurring depression may reduce people's motivation to eat well or be physically active, thereby further increasing for obesity and conditions related to obesity.
  - A family history of type 2 diabetes, dyslipidemia, and cardiovascular disease appears to further add to the risk.

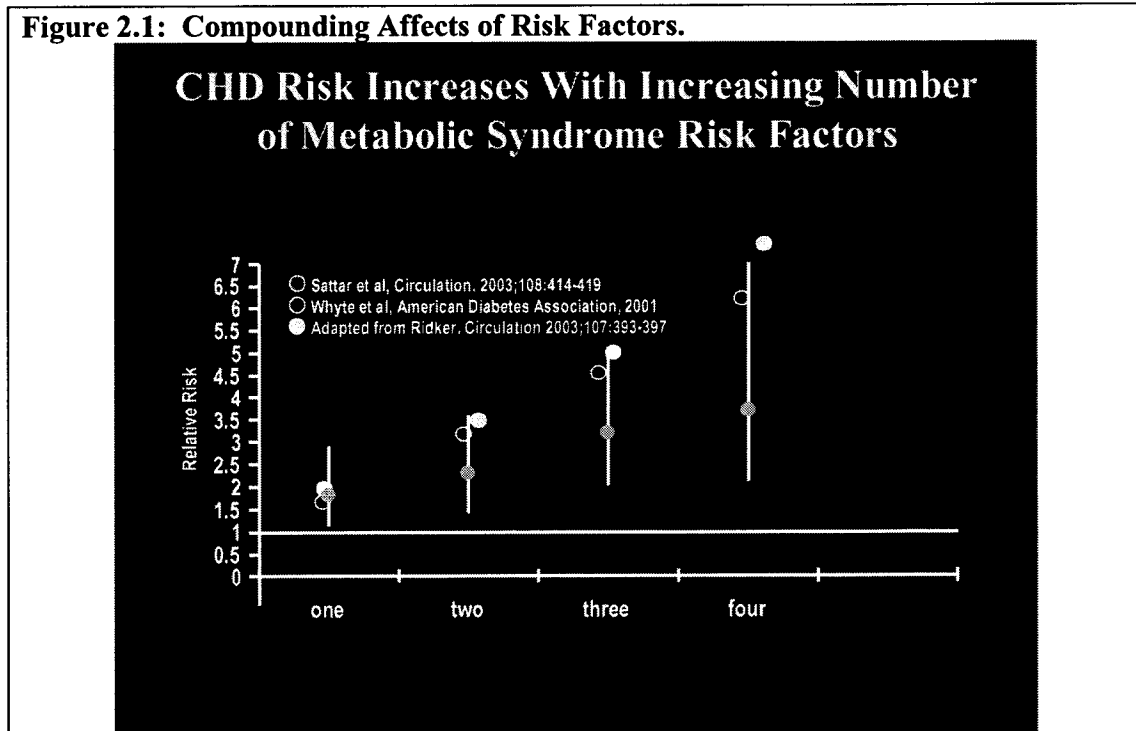
#### **Cultural/Societal:**

- The culture surrounding mental health has historically and traditionally encouraged passivity. Providers have reinforced the idea that mental health consumers should take their meds, get a ride or take a bus to their program, and sit in groups. Diabetes prevention, however, is about action: walking to an appointment, participating in community recreational activities, playing a sport, dancing, incorporating some form of physical activity into your daily schedule along with careful monitoring of food choices.
- Psychiatrists and other professionals may be reluctant to address weight and ways to possibly prevent weight gain for fear that the individual will refuse to take the medications that may have weight gain as a potential side effect.
- Clinicians often have insufficient training and may feel too pressed for time to focus on lifestyle choices and thus often focus on more traditional psychiatric goals such as reducing symptoms, leaving lifestyle choices to the individual. However, dialogue between the provider and the consumer about healthy lifestyle choices may help to inspire and motivate a person to make healthy choices (such as being more physically active and making healthier food and beverage choices. This may prevent or minimize weight gain and its secondary medical complications.)
- Psychiatrists and other clinicians have limited time available to spend with a person during an office visit. Concerns about the liability of the doctors managing medical problems can arise, which may result in an individual not getting timely treatment for a potential medical problem. New concerns may arise around liability related to prescribing psychotropic medications with large weight gain profiles.
- People with SMI often receive fragmented or poor medical care, which increase the time and effort to identify a problem and manage it. Furthermore, barriers to receiving prompt and appropriate physical health care include the difficulties faced by all consumers in accessing and negotiating the complexities of our present health care system.
- Mental health worker attitudes may contribute to the risk. These attitudes include the belief that one of the few pleasures a person receives is from eating.
- Low socio-economic status can cause financial barriers. Little money can limit choices. For example, high calorie foods, such as fast food are normally less expensive than healthier alternatives such as fresh fruits and vegetables. In addition, items like sugar-containing soft drinks are usually cheaper than healthier alternatives such as low-fat milk. Packaged foods, high in sodium and sugar, are also less expensive than fruits and vegetables, have a longer shelf life, and are easier to prepare for individuals with limited food preparation experience and for those living alone where the social activity of healthy dining with others is not routine. Group home and congregate care housing providers, often conscious of costs and ease of preparation may also opt for less nutritious foods. Nutritional counseling is rarely

covered by Medicaid. Health club fees can be expensive, and some people find going to gyms intimidating.

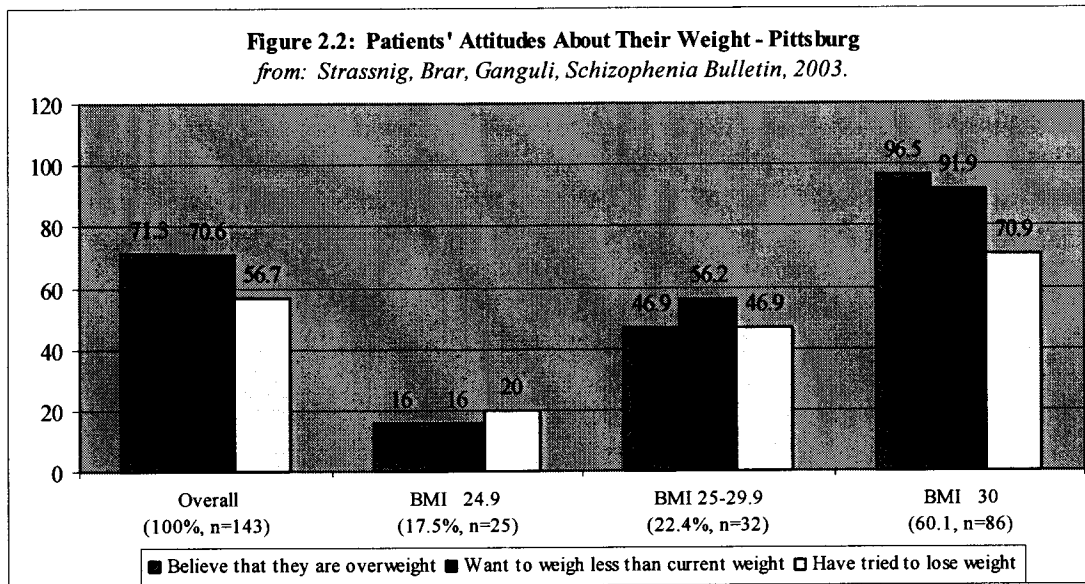
As risk factors accumulate, the relative risk of cardiovascular disease increases significantly. As illustrated by Figure 2.1, risk factors such as abdominal obesity, dyslipidemia, hyperglycemia, and hypertension can have at least additive effects on risk.

**Figure 2.1: Compounding Affects of Risk Factors.**



**Motivation and Ability to Lose Weight:**

There is a commonly held belief that persons with mental illness cannot make changes that improve their lives including achieving weight loss and better health. Contrary to this common belief, persons with SMI are self-conscious about their weight and interested in reducing their weight. A study of 143 patients with SMI in Pittsburgh indicates that over 71% believe that they are overweight and over 50% have tried to lose weight (Figure 2.2). In addition, the study found that there was a correlation between the more a patient weighed and the desire to lose weight.



A survey of 2,222 patients in the United Kingdom conducted by the British National Schizophrenia Fellowship (MIND) and the National Association for Mental Health & Manic Depression found that the top five “bad things” about taking psychotropic medications to manage ones mental illness were:

- Weight gain, eat a lot, etc. identified by approximately 20% of responders;
- Sedating side effects, tiredness, and drowsiness, identified by approximately 15% of responders;
- Lethargic, demotivated, less active, and apathetic, identified by more than 5% of responders;
- Imprecise negative comments, identified by more than 5% of responders; and
- Tremors and shaking indentified by slightly more than 5% of responders.

These concerns can contribute to medication non-adherence unless mitigated.

“While the body of evidence is not as vast as that in the general population, studies have shown that people with SMI can adopt healthy lifestyle behaviors. Despite the known health risks intrinsically associated with mental illness, research indicates that, like those without mental illness, people with schizophrenia, bipolar disorder, and other types of mental illness can adopt healthier choices (Vreeland, 2007).”

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## Interventions

The impact on one's overall health even with modest weight loss, are considerable. According to a study by Gregg and Williamson published in 2004, which analyzed data from 7 randomized controlled trials of approximately 7,000 subjects over 1 to 6 years lost 2 to 6% of body weight lost through lifestyle intervention. This modest amount of weight loss results was associated with:

- Decreased the hypertension incidence by 20 to 40%;
- Decreased diabetes incidence by 30 to 60%; and
- Decreased cardiac events by 30 to 40%.

Additional studies have reported that moderate weight loss of:

- 4 to 5% loss can lower or eliminate the need for antihypertensive medication in adults & the elderly (Stamler, 1987; Langford, 1985; Whelton, 1998);
- 5 to 7% loss is associated with 58% reduced risk for type 2 diabetes in adults (Knowler, 2002);
- 6 to 7% loss can improve the metabolic syndrome by decreasing low-density lipoprotein cholesterol, LDL concentration, and fasting insulin (Brook, 2004); and
- 10% loss can reduce lifetime risk for heart disease up to 4% and increase life expectancy for up to 7 months (Oster, 1999).

**Figure 3.1:**

### Goals: Lower Risk for CVD

- Blood cholesterol
  - 10% ↓ = 30% ↓ in CHD (200-180)
- High blood pressure (> 140 SBP or 90 DBP)
  - 4-6 mm Hg ↓ = 16% ↓ in CHD; 42% ↓ in stroke
- Cigarette smoking cessation
  - 50%-70% ↓ in CHD
- Maintenance of ideal body weight (BMI = 25)
  - 35%-55% ↓ in CHD
- Maintenance of active lifestyle (20-min walk daily)
  - 35%-55% ↓ in CHD

Hennekens CH. *Circulation*. 1998;97:1095-1102.

***Reducing Calories Is Much More Effective at Losing Weight Than Increasing Physical Activity.***

However, increase in exercise without reducing calories may not contribute to weight loss.

***Increasing Physical Activity Is Effective for Improving Physical Health Independent of Any Change in Weight.***

Exercise independent of improvements in diet, can lead to additional metabolic improvements.

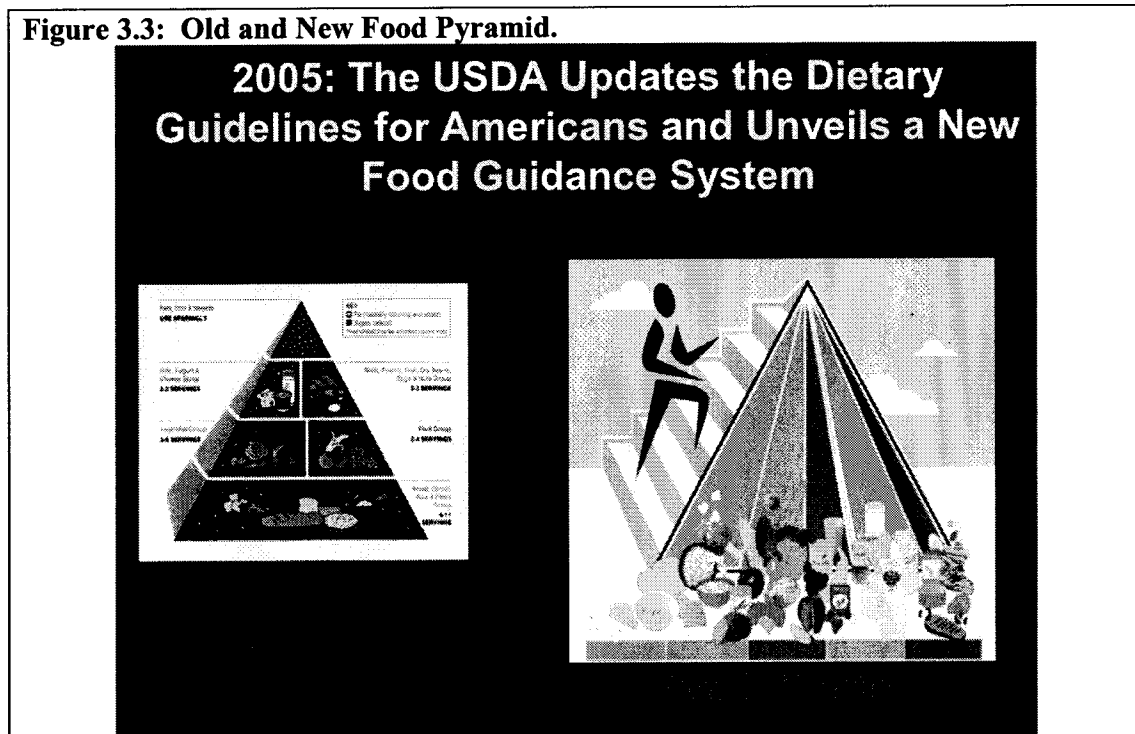
It is important to note that psycho-education, lifestyle interventions must be based on consumer choice. Behavioral treatment professionals need to help individuals with psychiatric disabilities understand health consequences of lifestyle choices and build a clinical alliance supporting any patient chosen therapeutic interventions. Shared decision making in clinical settings becomes critical to reinforcing the ability of individuals with psychiatric disabilities to make healthy choices.

Prevention of obesity in non-obese individuals is a key primary prevention goal and various combinations of diet, exercise, and behavioral treatment can also help to prevent continued weight gain and foster weight loss when weight gain has already occurred. These interventions also have promising indications of reducing weight in overweight and obese individuals with SMI.

### **Public Health Interventions:**

In response to the obesity epidemic, in 2005, the United States Department of Agriculture (USDA) updated their Dietary Guidelines for Americans and now promote a new food guidance system for Americans. MyPyramid replaces the old Food Pyramid as represented in Figure 3.3.

**Figure 3.3: Old and New Food Pyramid.**



As depicted in MyPyramid, the USDA incorporated, for the first time, regular physical activity (a minimum of 30 minutes a day). By doing so, the USDA has acknowledged

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that physical activity is an essential element when combined with a healthy diet in maintaining a healthy weight. The eating plan emphasized is one that will give the body the balanced nutrition it needs for eating a variety of nutrient packed foods everyday. These eating patterns are not “fad diets,” but rather a lifestyle of health eating that promotes well-being and reduces the risk of many chronic illnesses linked to obesity. MyPyramid has 12 different versions: caloric intake and recommended servings for different food groups will differ depending upon age, gender, and physical activity level (Dietary Guidelines and MyPyramid Mini-Poster).

In addition, the National Weight Control Registry, which is a registry of over 6,000 individuals who have been successful in losing a minimum of 30 pounds and keeping the weight off for at least a year, suggests six key strategies when helping people lose weight and keeping it off:

1. Engage in high levels of physical activity;<sup>15</sup>
2. Eat a diet low in calories and fat;<sup>16</sup>
3. Eat breakfast;<sup>17</sup>
4. Self-monitor weight regularly;<sup>18</sup>
5. Maintain a consistent eating pattern;<sup>19</sup>
6. Catch slips before they turn into larger regains;<sup>20</sup>
7. Watch a limited amount of television;<sup>21</sup>
8. Initiate weight loss after a medical event;<sup>22</sup> and
9. Eat a diet with limited variety in all food groups.<sup>23</sup>

### **Behavioral Treatment:**

“According to the guidelines of the National Heart, Lung, and Blood Institute (NHLBI), treatment of overweight or obese adults is a two-step process involving assessment and treatment management. Assessment includes assessing BMI, diet, waist circumference, risk status, and level of motivation (NHLBI, 1998).” Lifestyle modification programs are typically heavily influenced by learning theory and, principles of classical and operant conditioning. To remain atheoretical and pragmatic, these programs often incorporate strategies like cognitive restructuring to induce behavior change from cognitive-behavioral therapy. The key elements to behavioral approaches are giving participants a set of structured, gradual lifestyle change principals and methods in order to modify diet and physical activity, cognitive techniques for attitude change, and strategies for increasing social support. Thus the interventions both attempt to provide self-knowledge of where the problem behaviors originate, and teach skills for changing them.

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<sup>15</sup> Klem, M.L. et al. (2003). *Am J Clin Nutr.* Vol. 66, pp. 239-246.

<sup>16</sup> Klem, M.L. et al. (2003). *Am J Clin Nutr.* Vol. 66, pp. 239-246.

<sup>17</sup> Wyatt H.R. et al. (2002). *Obesity Research.* Vol. 10, pp. 78-82.

<sup>18</sup> Klem, M.L. et al. (2003). *Am J Clin Nutr.* Vol. 66, pp. 239-246.

<sup>19</sup> Gorin, A.A. et al. (2004). *Intl J Obesity.* Vol. 28, pp. 278-282.

<sup>20</sup> Phelan, S. et al. (2003). *Am J Clin Nutr.* Vol. 78, pp. 1079-1084.

<sup>21</sup> Nutrition Action Healthletter Jan/Feb 2008, p.8.

<sup>22</sup> Gorin, A.A. et al. (2004). *Prev Med.* Vol. 39, pp. 612-616.

<sup>23</sup> Raynor, H.A. et al. (2005). *Obesity Research.* Vol. 13, pp. 883-90.

Behavioral strategies include:

- Self monitoring, including record keeping;
- Nutrition education;
- Goal setting;
- Stimulus control;
- Behavioral Substitution;
- Problem Solving;
- Cognitive Restructuring;
- Relapse Management; and
- Other behavior change like slowing eating, portion control, and lifestyle activity.

Therapies that combine modifications to diet, behavior management, and physical activity are the most successful at obtaining weight loss. Results of such non-pharmacological treatment methods to reduce obesity appear in Table 3.4 below.

**Table 3.4: Results of Non-pharmacological treatment of Obesity and Diets.**

<b>Non-Pharmacological Treatment of Obesity - Diets</b>			
Success rate for reported study groups, subdivided according to initial treatment, energy level of initial diet and intensity of follow-up.			
	No. of patients	No. of study groups	Median success rate (range)
Overall success rate	2131	21	15% (0-49%)
<b>Influence of initial treatment:</b>			
Diet * alone **	1337	10	15% (6-28%)
Diet * plus group therapy	487	4	27% (14-31%)
Diet * plus behaviour modification	307	7	14% (0-49%)
<b>Influence of energy level of initial diet:</b>			
Very-low-calorie diet (300-600 kcal/24 h)**	304	8	14% (6-49%)
Conventional diet (800 - 1800 kcal/24 h)	1827	13	18% (0-31%)
<b>Influence of intensity of follow-up:</b>			
Passive follow-up **	597	10	10% (0-31%)
Active follow-up	1534	11	19% (13-49%)
* Conventional diet or very-low-calorie diet. ** Fasting was initially used in one study group. Ayyad and Andersen, 2000.			

There is emerging evidence that behavioral treatments that were shown to be effective in non-mentally ill individuals appear to be effective for individuals with severe mental illness as well. O'Keefe et al. (2003) performed a retrospective chart review of 35



patients who had initially gained at least 20 lbs. and then lost at least 10 lbs. while taking antipsychotics over a 5 year period. The most frequent weight loss interventions were regular dietician visits (42.9%), self-directed diet (28.6%), and weight loss as a treatment goal (25.7%). There are no less than fifteen published clinical intervention trials that confirmed the effectiveness of a wide range of behavioral interventions from lifestyle change to commercial Weight Watchers program. A summary of these interventions are presented in the Table 3.5.

**Table 3.5. Summary of Prospective Behavioral Weight Management Studies for Psychotic Outpatients\***

	Intervention N	Intervention BMI (weighted average)	Control N	Control BMI (weighted average)	Intervention weight change (weighted average, lbs)	Control weight change (weighted average, lbs)
<b>Randomized Studies Prevention of weight gain</b>	79	27.9	76	23.4	<b>+4.64</b>	<b>+15.56</b>
<b>Randomized Studies Weight loss</b>	141	30.2	121	30.5	<b>-5.7</b>	<b>+0.9</b>
<b>All Published Studies</b>	544	30.1	217	28.7	<b>- 4.3</b>	<b>+ 5.9</b>

\* Adapted and updated from Jean-Baptiste et al, 2007

As reported in the study, “Wellness Intervention for Patients with Serious and Persistent Mental Illness,” the Solutions for Wellness Personalized Program is one example of an ongoing 6-month program targeted towards combining diet, exercise and behavioral therapy. Psychiatrists and primary care physicians throughout the United States caring for patients with mental illness living in the community were provided with enrollment forms and asked to distribute them to the target population. Patients were not required to meet any enrollment criteria, including diagnosis, treatment, weight, or risk for weight gain. Selection of participants was at the sole discretion of the clinician, and the decision to enroll belonged entirely to the patient.

Participants completed an enrollment survey that queried the self-perceived need to improve overall health and well-being; eat healthier; improve fitness, stress management, and sleep habits; and increase self-esteem. Participants’ readiness to change eating habits and to start being more physically active was also assessed. Information on diet and exercise preferences from the enrollment survey was used to generate a personalized menu planner that included a weekly menu with dinner recipes and shopping list, which was developed with the assistance of mental health clinicians and registered dietitians. A

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public health clinician and a certified health fitness instructor developed a personalized exercise plan. Participants also received regular educational mailings, such as newsletters that were developed by health care professionals, monthly motivational progress updates, motivational progress updates, and motivational gifts, like exercise videos.

The results of the study of this program found that the participants who were motivated to make a change were able to make healthy lifestyle changes, which helped them to lose weight and gain self-confidence. The success of these individuals was significantly associated with their readiness to make lifestyle changes. And the results are consistent with those of a prospective naturalistic study in patients with schizophrenia or schizoaffective disorder who were motivated to change their behavior in order to lose weight and benefited from a weight control program that focused on nutrition, exercise and motivation.

There is also a Solutions for Wellness manualized program (Vreeland B., Toto A.M., and Sakowitz M., 2008). It is a free, easy-to-use psychoeducational wellness program designed to inspire and assist persons with mental illness to make healthier eating, physical activity, and other lifestyle factor choices. Research findings suggest that the program is significantly associated with weight control in people with schizophrenia (Littrell et al., 2003) and also in people with other serious mental illnesses (Vreeland et al., 2008). Additionally, other similar programs such as the Healthy Living program assist with weight reduction. The Healthy Living program was designed to assist individuals who had gained weight as a result of their medications to make long-lasting lifestyle and behavioral changes that would have a positive effect on weight loss, overall health, and well-being.

Healthy Living consisted of nutritional counseling, exercise, and behavioral interventions designed to help adults with schizophrenia implement healthy life style changes. Behavioral strategies included self-monitoring of eating and physical activity, stress management, stimulus control, problem solving, and social support. Stage-based motivational counseling strategies (see table 3.6 below) were utilized and the participants were encouraged to make healthier choices around food and physical activity. Select materials from the Solutions for Wellness program (mentioned above) were utilized. “Small steps” that could fit into the individual’s every day lifestyle (taking into account the challenges that people with serious mental illness may encounter) were encouraged.

**Table 3.6: Transtheoretical Stage of Change Model.**

**Stages of Change Model**

<b>Stage</b>	<b>Definition</b>	<b>Intervention</b>
Precontemplation	Unaware of need to change behavior	Increase awareness
Contemplation	Thinking about change	Motivate, tip the balance
Preparation	Making a plan	Concrete action plan
Action	Implementing plan	Assist with feedback, support
Maintenance	Continuation of desirable actions	Reminders, avoiding slips

Prochaska J, DiClemente C, Norcross, J (1992). *Amer Psychologist*, 47: 1102-1114

Results from the Healthy Living study not only suggest that people diagnosed with schizophrenia can lose more weight than those who receive usual psychiatric care, but that they also may be able to lose more weight than their non-psychiatric cohorts who participate in weight loss programs such as Adkins and Weight Watchers (Vreeland, 2007).

Potential benefits to the patient from weight loss include:

- Reduction in risk of diabetes, cardiovascular disease, and other obesity related illnesses;
- Reduction of serum triglycerides and total and low-density lipoprotein (LDL)-cholesterol concentrations;
- Increase in high-density lipoprotein (HDL)-cholesterol concentrations; and
- Reduction in blood glucose concentrations and in hemoglobin A1C among patients with type 2 diabetes.

**The Small Changes (Small Steps) Approach to Weight Management:**

Some experts recommend using a “small changes approach” to preventing and reversing weight gain (Hill J.O. & Wyatt H.R., 2006; Vreeland, 2007). A combination of reduced energy intake (food) and increased physical activity that equals 100 kcal/day should prevent weight gain in most adults. A small changes approach can be applied to individuals or a population. Several examples of “small steps” people could choose to achieve this appear below.

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Reducing consumption of any foods can result in substantial weight loss within a year. For instance:

- Elimination one 12-ounce can of soda per day can result in reduction of between 10 and 16lbs;
- Switching from whole milk to 2% (served three times per day) can result in a reduction of 5.6lbs;
- Refusing larger sizes can reduce about 500 calories;
- Watching TV two hours less per day can result in a 23% decrease in obesity; and
- Walking 2,000 steps (or about 1 mile) every day may reduce an additional 10 lbs. (Consider pedometers as a safe and easy way to increase awareness about physical activity and add more steps to each day).

**Diabetes Prevention Program:**

Diabetes Prevention Program (DPP) is a very large NIH sponsored trial that have shown a behavioral lifestyle intervention is very effective in decreasing rates of diabetes and other obesity related morbidity in non-mentally ill individuals (Knowler et al., 2002, Hamman et al., 2006). DPP has been shown to be effective for mentally ill individuals as well (McKibbin et al., 2006). All the manuals and materials of the DPP are freely available on the internet from the NIH, and can be adapted by mental health professionals for use in severe mentally ill population<sup>24</sup>.

**Psychiatric Medications:**

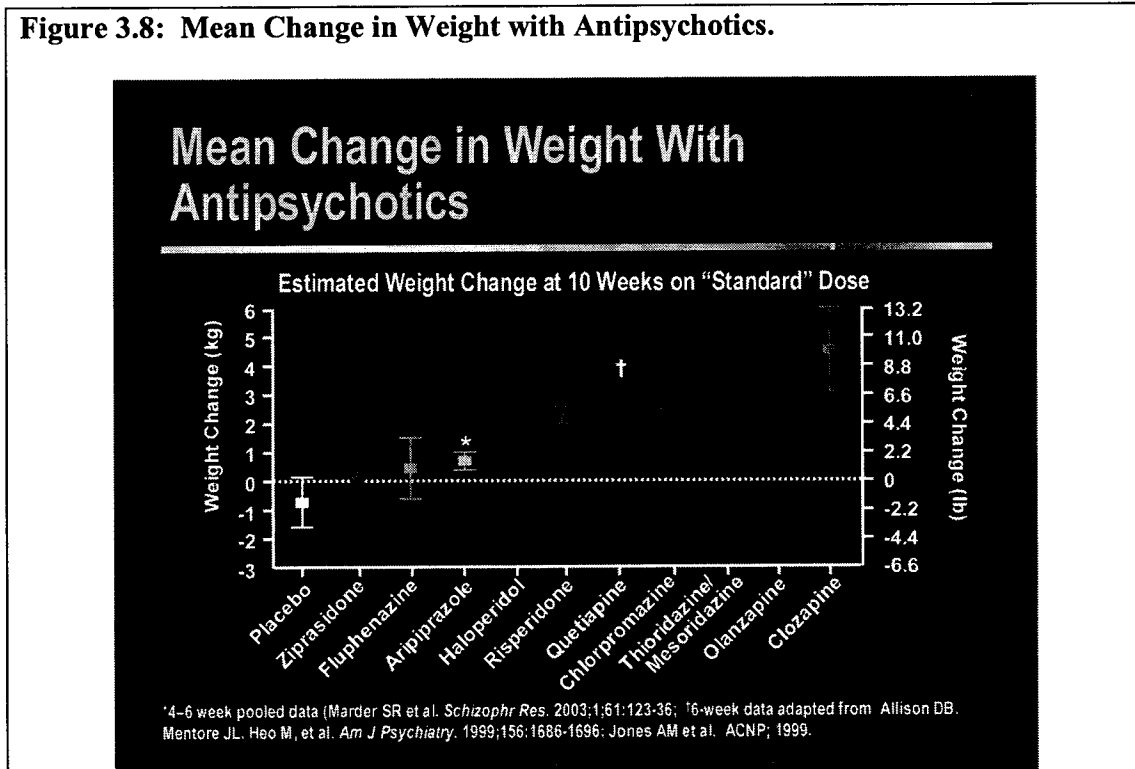
Psychotropic medications are known to contribute to overweight and obesity. Figure 3.7 demonstrates the differential weight gain across several antipsychotic medications by monitoring weight gain in an individual with mental illness.

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<sup>24</sup> Visit <http://diabetes.niddk.nih.gov/dm/pubs/preventionprogram/> for more information.



**Figure 3.8: Mean Change in Weight with Antipsychotics.**



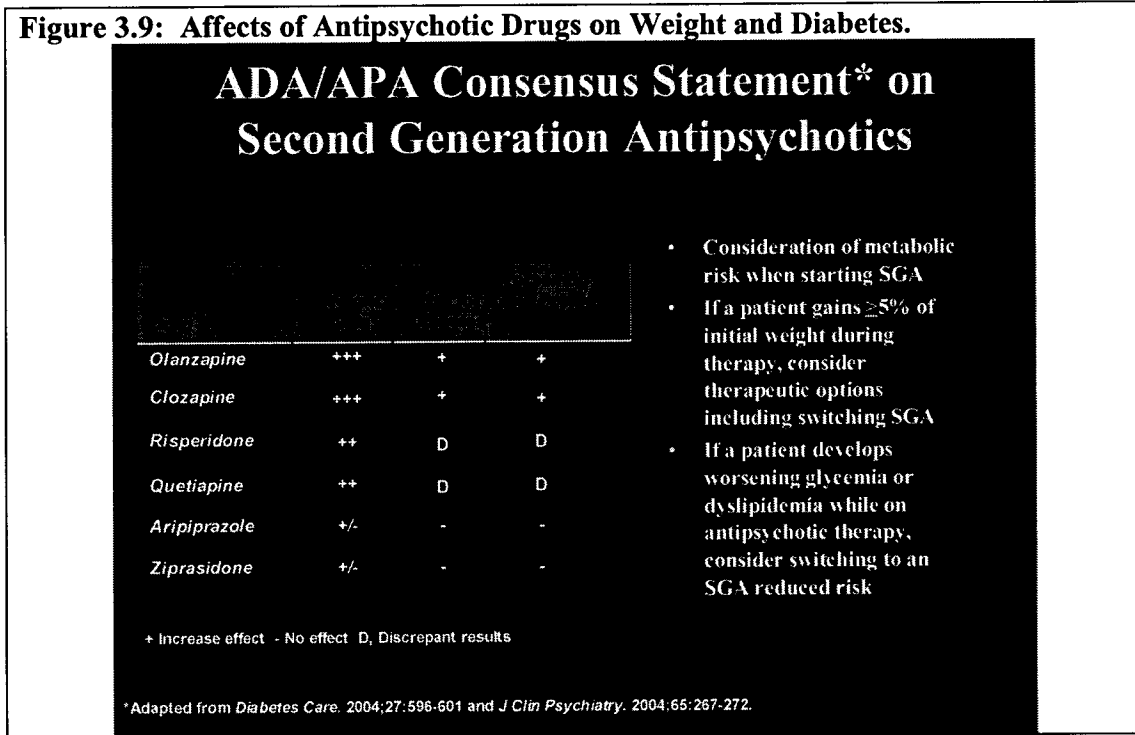
In addition, many of these medications contribute to the following health complications:

- Insulin resistance;
- Diabetes/hyperglycemia; and
- Dyslipidemia.

Both the American Diabetes Association (ADA) and the American Psychiatric Association (APA) have indicated that when beginning Second Generation Antipsychotics (SGA), the prescriber should consider metabolic risk. For patients starting antipsychotics, a prescriber should consider the patients baseline BMI when choosing medications and choose medications with lowered risk of exacerbating obesity in overweight individuals or those at risk for obesity. In addition, for patients with high or borderline values or in patients with family history of obesity, high blood pressure, diabetes, or heart disease or stroke, drugs with lower risk of metabolic side effects should be chosen.

The figure 3.9 below provides a useful reference when prescribing psychotropic medications.

**Figure 3.9: Affects of Antipsychotic Drugs on Weight and Diabetes.**



Practice standards have been developed for monitoring the metabolic consequences of anti-psychotic medication including weight gain. These practice standards are outlined within figure 3.10 below. The regular monitoring of fasting lipid profiles is now recommended as a result of an increased understanding of the relationship between the level of certain lipid fractions and risk for cardiovascular disease and diabetes. While the ADA Consensus statement suggested that fasting lipid profiles might only need to be monitored every 5 years after an initial year of treatment, this recommendation is in fact derived from U.S. Public Health Service (USPHS) guidelines for individuals at low risk for cardiovascular disease, with wide agreement since that time that this is not a low risk population. In addition, lipid fractions like plasma triglyceride can serve as an indicator of insulin resistance, and can be elevated long before changes in plasma glucose, giving providers and patients a chance to intervene before disease progression and tissue damage occurs. The value of screening and monitoring can not be overemphasized, since intervention efforts require knowledge of the level of risk for an individual. Recent evidence indicates very low levels of screening and monitoring of plasma glucose and even lower levels for plasma lipids in patients taking antipsychotic medications (Morrato et al., 2008).

**Figure 3.10: Monitoring Protocols.**

**ADA Consensus on Antipsychotic Drugs and Obesity and Diabetes: Monitoring Protocol\***

	Start	4 wks	8 wks	12 wks	3 mos.	12 mos.	5 yrs.
Personal/family Hx	X					X	
Weight (BMI)	X	X	X	X	X		
Waist circumference	X					X	
Blood pressure	X			X		X	
Fasting glucose	X			X		X	
Fasting lipid profile	X			X		X <sup>a</sup>	X

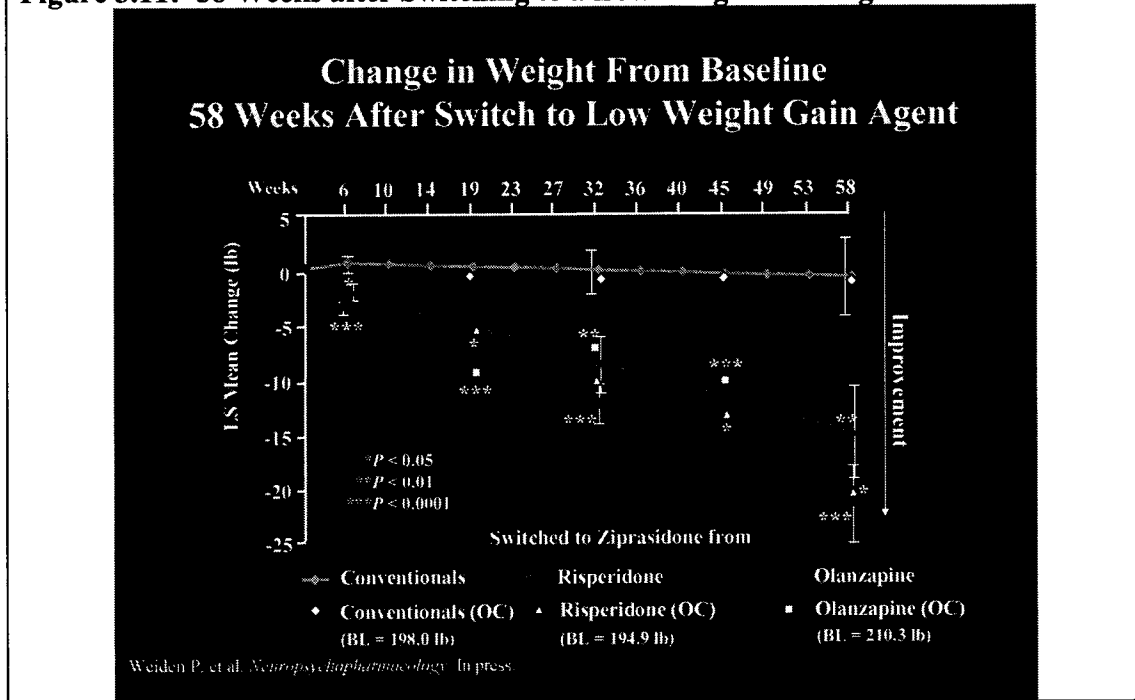
*\*More frequent assessments may be warranted based on clinical status  
Diabetes Care. 27:596-601, 2004*

Standard monitoring worksheets such as the one in attachment D have been developed and should be used for patients on SGA.

Switching antipsychotics when possible can result in a decrease in weight as depicted in figure 3.11.



**Figure 3.11: 58 Weeks after Switching to a Low Weight Gain Agent.**



If a patient gains more than 5% of his/her initial weight and/or develops worsening glycemia or dyslipidemia during therapy, the prescriber should consider therapeutic options, including changing the medication regimen to utilize agents with lower risk. However, since not all patients benefit or are harmed equally during treatment with individual antipsychotic medications, it is necessary to carefully consider trade-offs involving individual drug response and individual patient risk factors and preferences. This should optimally occur as an ongoing, shared, decision-making process between individual patients and their prescribers, re-evaluated on an ongoing basis as risks and benefits emerge. If a patient is taking multiple psychotropics, further attention may be necessary to determine risks, benefits and alternatives especially if the patient is gaining weight. Monitoring protocols for all individuals taking antipsychotic medications should include the following:

- Personal/family history;
- Weight (BMI);
- Waist circumference;
- Blood pressure;
- Fasting glucose; and
- Fasting lipid profile.

**Weight Loss Medications:**

While some individuals with SMI are able to maintain normal weight through diet and exercise, many are not able to avoid obesity. An important principle for this population is expressed in the USPHS guidelines targeting prevention of cardiovascular disease, the

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National Cholesterol Education Program and the Adult Treatment Panel (now ATP III) guidelines from the National Heart Lung and Blood Institute (NHLBI). Adjunctive pharmacotherapy to lower risk, using drugs of proven benefit (e.g., lipid lowering agents), can be an important approach to lower risk when therapeutic lifestyle change (TLC) has failed, or when risk levels are sufficiently elevated to warrant pharmacological intervention without waiting for the results of TLC. However, when secondary causes of risk (e.g., adverse effects of antipsychotics, protease inhibitors or glucocorticoids on lipid levels) are identified, efforts to address these secondary causes should first be made whenever clinically possible. If secondary causes of risk can be removed, risks and costs associated with adjunctive pharmacotherapy can be minimized. When determining if drug therapy is appropriate for the treatment of obesity, the clinician should understand that drug therapy is not indicated until after all non-pharmacological attempts of weight loss have failed, excluding bariatric surgery. Pharmacotherapy is not indicated and should never be used as first line therapy for the treatment of obesity. The National Heart, Blood, and Lung Institute (NHLBI)<sup>25</sup> has indicated that medication treatment for obesity should be reserved as adjunct therapy to diet and physical activity for overweight and obese patients. Additionally, drug therapy may have more risks for people with serious mental illness, related in part to mechanisms of action for specific agents, with almost no currently available long term safety data for any agent in the SMI population. Therefore any adjunctive drug therapy for the treatment of obesity should be administered under the close supervision of a medical professional. Medical professionals should monitor adherence to the plan, side effects and potential effects when combined with the drugs used to treat the person's mental illness.

According to Bray, to use pharmacological treatment properly for the treatment of obesity, it is important to start with the following framework in mind:

- Obesity is due to an imbalance between energy intake and energy expenditure;
- Drugs can either reduce food intake or increase energy expenditure;
- Drug treatment does not cure the overweight patient;
- The therapeutic range of medications for practitioners is limited to only a few drugs;
- The use of drugs labors under the negative halo of treatment mishaps;
- Drugs do not work when they are not taken; when the drugs are stopped weight gain is the expected outcome;
- Weight loss plateaus during continued treatment when compensatory mechanisms come into play to counterbalance the effect of the drug;
- Monotherapy usually produces weight loss in the range of 10%;
- Frustration with the failure to continue to lose weight often leads to discontinuation of therapy and then to weight regain with labeling of the drug as a failure.

The NHLBI<sup>26</sup> recommends pharmacological treatment in patients with a BMI  $\geq 30$  or a BMI  $\geq 27$  with at least two risk factors. According to Schnee, with any of the current medications available for long-term treatment and maintenance, a patient can achieve at best a 10% reduction in weight from baseline with strict adherence to the medication and

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<sup>25</sup> As well as the National Institute for Health.

<sup>26</sup> As well as the National Institute for Health.

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an appropriate diet with most data informing such predications coming from non-SMI samples.

Presently, three classes of prescription medications have FDA approval for weight loss in the United States are:

- Noradrenergic agents (phentermine);
- Adrenergic and serotonergic agents (sibutrimine); and
- Lipase inhibitors (xenical).

Both the noradrenergic agents and the adrenergic and serotonergic agents exert their effects by decreasing appetite while increasing satiety. Lipase inhibitors exert their effects by decreasing nutrient absorption in the gastrointestinal tract, resulting in weight loss.

Medications without FDA approval that have been used for weight loss include:

- Metformin – an oral insulin sensitizing agent indicated for diabetes;
- Exenatide – an injected glucagon-like agent indicated for diabetes;
- Topiramate and zonisimide – oral anticonvulsants; and
- Bupropion – an oral antidepressant.

(See attachment E for more information.)

#### **Adjunctive Medications to Reduce Weight for persons with Schizophrenia:**

Weight loss and other types of adjunctive medications have been utilized to try to reduce weight in people with schizophrenia. Figure 3.12 below indicates, rather small and non-definitive studies that have utilized adjunctive medication to reduce weight in persons with schizophrenia. A recent Cochrane review of adjunctive pharmacological interventions to lower weight or prevent weight gain in patients with SMI suggested that currently published results do not identify any well-characterized agents with consistent beneficial and well-tolerated effects. For example, it remains unclear whether reported favorable effects of metformin on weight in this population are related to insulin sensitization or simply adverse gastrointestinal (GI) drug effects that make patients want to eat less. (The induction of unpleasant adverse GI effects is probably not a preferred approach to weight reduction in any population). Furthermore, the safety of weight loss medications in the population with SMI has not been established.

**Figure 3.12: Adjunctive Medication to Reduce Weight in Schizophrenia Patients.**  
 From: Strassnig & Ganguli (2007). *Clinical Schizophrenia and related Psychoses*.

Authors	Sample Characteristics	Agent	Behavioural Augmentation	N	Duration weeks	Results
Correa et al. 1987 (56)	Inpatients; cross-over design	200–300 mg amantadine	NO	10	7	–1.82 kg; all lost weight
Floris et al. 2001 (57)	Outpatients receiving olanzapine; pre-post design	100–300 mg amantadine	NO	12	21	–3.5±2 kg weight loss
Breier et al. 2001 (62)	Schizophrenia and schizoaffective patients treated with olanzapine	Nizatadine 300 mg po twice daily	NO	132	16	H2 blocker –2.8 kg vs. placebo –5.5 kg
Cavazzoni et al. 2003 (63)	In- and outpatients on olanzapine	Nizatadine 150 mg bid vs. 300 mg bid vs. placebo	NO	175	16	No in-between group differences (+3.56±4.95 vs. 3.29±5.33 vs. 4.18±4.33 kg)
Poyurovsky et al. 2002 (51)	Inpatients receiving olanzapine	Fluoxetine 20 mg/d vs. placebo	NO	30	8	No difference (+5.9±4.6 kg for intervention vs. 6.1±5.5 kg placebo)
Poyurovsky et al. 2003 (59)	First episode schizophrenics on olanzapine 10 mg/day	Reboxetine 4 mg/day vs. placebo	NO	26	6	Significantly lower wt. gain in reboxetine group (+2.5±2.7 kg vs. placebo 5.5±3.1 kg)
Poyurovsky et al. 2003 (59)	First episode schizophrenics on olanzapine 10 mg/day	Reboxetine 4 mg/day vs. placebo	NO	26	6	Significantly lower wt. gain in reboxetine group (+2.5±2.7 kg vs. placebo 5.5±3.1 kg)
Ko et al. 2005 (54)	Inpatients with schizophrenia; atypical antipsychotics	Topiramate 200 mg vs. 100 mg vs. placebo	NO	66	12	–5.35, –1.68, –0.35 kg with 200 mg, 100 mg, and placebo, respectively. Significant only in 200 mg group
Kim et al. 2006 (55)	Outpatients with schizophrenia; newly treated with olanzapine	Topiramate 50 mg bid vs. placebo	NO	48	12	Less weight gain with concomitant topiramate vs. placebo (2.66±1.79 vs. 4.02±2.52 kg)
Baptista et al. 2006 (66)	Inpatients with schizophrenia or schizoaffective disorder; switched to olanzapine	Metformin 850–1700 mg daily vs. placebo	NO	40	14	5.5 kg vs. 6.3 kg weight gain with metformin vs. placebo, not significant
Henderson et al. 2005 (47)	Patients with schizophrenia or schizoaffective disorder on olanzapine; BMI ≥30	Sibutramine (up to 15 mg/day) vs. placebo	YES	37	12	Significantly lower weight gain in sibutramine group (–8.3±2.4 lbs vs. +1.8±1.6 lbs for placebo)
Henderson et al. 2007 (48)	Patients with schizophrenia or schizoaffective disorder on clozapine	Sibutramine (up to 15 mg/day) vs. placebo	YES	21	12	No significant difference in weight loss between sibutramine and placebo groups

Risk factors associated with this method of weight loss include, but are not limited to additional side effects and an increased cost to one's health. Furthermore, while utilizing a combination of the various medications is possible, more study is needed in this area to determine the multiplicative affects of taking two or more medications. Limited research

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in this area suggests that behavioral interventions are just as, if not more effective, in people with schizophrenia, and are also safer. Importantly, the removal of secondary causes of increased weight (e.g., therapeutic substitution of antipsychotics with lower risk for weight gain for agents with higher risk) can produce even larger weight lowering effects than behavioral interventions or adjunctive medication (see, for example, figure 3.11). However, adjunctive medication could be considered if a combination of diet, exercise, and behavioral interventions fail, and when psychotropic medication switching opportunities are limited due to patients already being on lower risk drugs or switching medications is psychiatrically unfeasible. These risks and potential benefits of any of these courses should be weighed with the consumer in determining an appropriate course of action.

“Evidence-based medicine dictates that effective obesity management must incorporate an integrated program of caloric and fat restriction in combination with exercise and behavior modification in addition to pharmacotherapy (Palamara, 2006).”

### **Surgery:**

For morbid obesity, bariatric surgery is a highly effective therapy, although efficacy and tolerability have received limited formal testing in the SMI population. Bariatric surgical procedures reduce caloric intake by modifying the anatomy of the gastrointestinal tract. These operations are classified as either restrictive or malabsorptive. Restrictive procedures limit intake by creating a small gastric reservoir with a narrow outlet to delay emptying. Examples of restrictive procedures include:

- Gastric stapling (gastroplasty);
- Adjustable gastric banding (wrapping a synthetic, inflatable band around the stomach to create a small pouch with a narrow outlet); or
- A combination of these two approaches.

Malabsorptive procedures bypass varying portions of the small intestine where nutrient absorption occurs. Examples of malabsorptive procedures include:

- Biliopancreatic diversion; and
- Proximal Roux-en-Y, a combination restriction-malabsorption procedure.

While there may be complications in post-operative individuals, which may include death, the evidence suggests that Bariatric surgery is an effective method to reduce weight, and weight related medical co-morbidities in individuals. In general, weight loss with malabsorptive procedures tends to be greater than weight loss with solely restrictive procedures. According to DeMaria, improvements in the conditions that are often associated with obesity have been consistently reported after Bariatric surgery. These include the following results:

- 77% of patients with preoperative diabetes no longer require medication after surgery;
- 83% of patients saw improvements in hyperlipidemia;
- 66% of patients saw improvements in hypertension; and
- 88% of patients saw improvements with sleep apnea.

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DeMaria writes that “it has not been clearly established whether bariatric surgery results in reduced mortality as compared with medical management of obesity, although such a benefit is suggested in the results of several studies.”

Estimates of the median hospital costs for bariatric surgery range from approximately \$10,000 to \$14,000. The Medicare physician fees for 2007 range between \$800 to \$2,000 depending upon the method used (DeMaria, 2007).

The National Institutes of Health <sup>27</sup> recommends the following criteria for bariatric surgery in the general population:

- A BMI of 40 or higher; or
- A BMI of 35 or higher in a patient with a high-risk condition such as severe sleep apnea, obesity-related cardiomyopathy, or severe diabetes mellitus; and
- Failure of medical weight control; and
- An absence of medical or psychological contraindications; and
- The patient’s understanding of the procedure and its risks; and
- Strong motivation on the patient’s behalf to comply with the post-surgical regimen.

Evaluation of the surgical candidate should include:

- A comprehensive nutritional and weight history, covering trends, previous weight loss efforts, and perceived obstacles to success management;
- Current weight, height, and BMI;
- Measuring waist circumference (for additional information regarding health risks);
- A complete medication history, including evaluation of antidepressants, oral contraceptives, oral hypoglycemic agents, and other drugs associated with weight gain;
- A complete physical examination, assessing common conditions that accompany obesity, such as diabetes, hypertension, hyperlipidemia, coronary artery disease, sleep apnea, pulmonary hypertension, musculoskeletal disease and others;
- A complete and recent psychological evaluation of the candidate (a mental health diagnosis in and/or itself should not rule out this option).

Preoperative education is important in improving the patient’s understanding of the anticipated consequences of the procedure and to assist with managing unreasonable expectations.

The NIH Consensus panel emphasizes the necessity of multidisciplinary care of the bariatric surgical patient, by an expert team of physicians and therapists to manage associated co-morbidities, nutrition, physical activity, behavior and psychological needs. The surgical procedure is best regarded as a tool which enables the patient to alter lifestyle and eating habits.

Contraindications rendering the risks to bariatric surgery unacceptably high include:

- Mental or cognitive impairment that limits the patient’s ability to understand the procedure and thus precludes informed consent; and

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<sup>27</sup> As well as the NIH Consensus Panel.

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- Very severe coexisting medical conditions, such as unstable coronary artery disease or advanced liver disease with portal hypertension.

On February 21, 2006, the Center for Medicare and Medicaid Services expanded national coverage for certain bariatric surgeries to Medicare beneficiaries with a BMI of 35 or greater, and no success with medical treatment for obesity. About 22% of all obese disabled beneficiaries were entitled to Medicare because of a mental disability.

**Bariatric Surgery and Persons with SMI:**

While having a history of mental health problems should not prevent people from getting obesity surgery, evaluation of patient's preoperative psychiatric status may play an important role in maximizing successful postoperative outcomes (Sarwer D.B. et al., 2004). Additionally, symptoms of mental illness including depression, psychosis, and cognitive impairment could add to the challenges that people without mental illness experience when trying to adhere to postoperative regimens.

“Mental status is a difficult area in which to define standards for patient selection. Selected screening for severe depression, untreated or undertreated mental illness associated with psychosis, active substance abuse, bulimia nervosa, and socially disruptive personality disorders may help avoid adverse postoperative outcomes. History of compliance with nonoperative therapy may be beneficial in assessing the risk-to-benefit ratio of bariatric surgery” (Buchwald, 2004).

Research is lacking about bariatric surgical procedures in persons with serious mental illness. A small study of 5 patients with schizophrenia with morbid obesity suggests that bariatric surgery in this group was comparable to those of non-psychotic morbidly obese patients. In morbidly obese persons with SMI, who have failed other attempts to address their disease, a careful individualized risk-to-benefit ration for bariatric surgery should be considered.

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## Recommendations

Based on the review of the obesity research and prevention literature, weight management and mental illness literature, materials, presentations and commentary from work group participants at the meeting held on August 9-10, 2007 in Kansas City, MO, meeting participants drew the following conclusions and recommendations for NASMHPD. This list is recognized to be limited in its scope as it does not include every conclusion and recommendation made within the body of this report; however, it does represent those priorities determined at the meeting for obesity prevention efforts for individuals with SMI focused specifically on the following three levels:

- National – through NASMHPD;
- State – through the State Mental Health Authority; and
- Community Mental Health Center and other providers.

Furthermore, it is recognized that for the greatest success coordination must occur between all of these levels.

Recommendations at the **National Level** include:

**1.1: Encourage research on obesity in people with serious mental illness.**

Better data is needed on the prevalence of obesity in people with serious mental illnesses, in order to identify high-risk groups, including women, children, the elderly and ethnic/racial minorities. There have been few randomized and controlled clinical trials studying obesity and its management in people with serious mental illness; more study of this population is necessary.

**1.2: Implement national obesity surveillance/monitoring system for persons with serious mental illnesses. Develop and implement community programs for weight monitoring in all people with SMI, weight maintenance among those persons with SMI who are in the normal weight category and weight loss for those who are overweight or obese.**

Surveillance of the overall health status of persons with serious mental illnesses should include continued monitoring of weight, BMI, waist circumference, fasting blood sugar (FBS), lipids, and the affects of pharmaceuticals on the weight of the individuals in the SMI population. NASMHPD should partner with SAMHSA and other federal agencies to develop and disseminate specialized programs tailored at weight reduction for persons with SMI who are overweight or obese. Education and counseling should be tailored for persons with SMI to ensure that persons with normal weight do not become overweight or obese.

**1.3: Create federal tax incentives, through the use of employer-sponsored pre-tax medical expense accounts, to encourage physical activity.**

Federal tax policy can be used to promote health and healthy activities. For individuals who are employed and able to participate in pre-tax spending accounts



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for medical expenses, dues and fees for membership to a local gym or local Park and Recreation Center could be included as a valid expense for reimbursement. Such expense reimbursement can create financial incentives for pursuing and adopting physical activity into one's lifestyle.

For those individuals who do not have the ability to participate in pre-tax spending accounts for medical expenses; a memorandum of understanding (MOU) with the local Park and Recreation Department is a strong possibility. The MOU could delineate the criteria necessary to be eligible for reduced membership fees.

**1.4: The Centers for Medicaid and Medicare Services should include weight management interventions and appropriate laboratory tests as a reimbursable service in existing federal healthcare programs.**

NASMHPD should encourage the Centers for Medicaid and Medicare Services (CMS) to cover weight management interventions and corresponding lab tests to establish a comprehensive weight loss program for individuals with serious mental illnesses. Such interventions should include psychoeducational and behavioral interventions, pedometers, scales, medications for weight loss, and surgery. Furthermore, as weight loss medications are studied for release, the FDA should study the effects these medications have on persons with SMI.

**1.5: Create a MOU with NASMHPD and SAMHSA on USDA nutritional counseling.**

Dietary consultations are an effective intervention to prevent and reduce obesity. Dietary consultations are an available resource for primary care and psychiatric professionals to utilize for persons with SMI. Accessing USDA nutritional counseling will benefit persons with SMI while conserving public mental health system resources.

**1.6: Federal Healthcare agencies should collaborate on the development of a provider toolkit of best practices for the prevention and reduction of obesity in persons with severe mental illnesses and actively support dissemination of this report in the toolkit through national meetings, Web seminars, continuing education and other available venues.**

NASMHPD, SAMHSA, NIH and other federal agencies should assess the efficacy and utility of available strategies for the prevention and reduction of obesity in people with serious mental illness and create a 'toolkit' of best practices for providers. Once developed, this toolkit should be widely disseminated, using a variety of strategies.

**1.7: Educate national mental health stakeholder organizations regarding the impact of obesity in the populations they serve and also about available**

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## **interventions.**

Reducing this epidemic of obesity and subsequent mortality will require support of and actions by the broader community of public mental health stakeholders. Provider groups such as the National Council of Community Behavioral Health (NCCBH) and the American Psychiatric Association and advocacy groups such as Mental Health America and the National Alliance for the Mentally Ill need to be informed of this reports findings and involved in implementing it's recommendations.

**Recommendations at the State Level, to be implemented through the State Mental Health Authority include:**

### **2.1: Educate mental health professionals on the importance of weight monitoring and weight reduction in people with serious mental illness.**

Behavioral health care professionals are often not trained to assess and address physical health care issues and some clinicians may still believe that persons with SMI are not able to live healthy lifestyles, due to a variety of factors, including:

- The belief that obesity is related to the person's mental illness;
- The belief that people with SMI lack the motivation to improve their health and well-being;
- The socioeconomic challenges of living with a SMI;
- Discrimination and stigma;
- The difficulty in accessing good-quality medical care for people with SMI; and
- The high prevalence of weight gain as a side effect in mental health medications.

Education about weight management and reduction can help to overcome these factors. Providers need to be encouraged to treat the whole person and to address both the physical health and the mental health of the person. This typically means coordinating care between primary care providers and mental health professionals. State authorities should foster this coordination of care by educating both groups of health providers on the issue of obesity in SMI.

#### **2.1.1: Develop standards of care for mental health providers and work with State Medicaid agencies and other health insurers to ensure that persons with severe mental illness and obesity have access to the following interventions:**

- Educational/behavioral interventions for weight management;
- Switch to low weight gain antipsychotics when weight increases;
- Medical treatment of obesity; and
- Surgical treatment of obesity

#### **2.2: Promote opportunities for health care providers, including peer**

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**specialists, to teach healthy lifestyles to families, individuals, and older adults.**

The incorporation of health lifestyle choices in any behavioral program should become a standard. Simple practice assignments in traditional psycho-social programs can increase learning and efficacy. Having participants in a program develop a plan to hold a progressive dinner<sup>28</sup> builds multiple psycho-social skills, increases natural support networks, provides opportunities to learn or improve shopping and food preparation skills and creates economies of scale where healthy food choices are more available. The focus of lifestyle changes should include at least informational support for the individual's extended support network.

Family and peer support groups should provide materials and information to support healthy lifestyle choices. These groups can provide training to address the stereotypical beliefs that overweight individuals are lazy. They can also provide training and support to better prepare individuals, their families and providers in shared decision making approaches.

Peer specialists can aid in the training process by working with recipients of programs developing goals and interventions based on individual choice. Examples could be a recipient lead health fair, educational symposium, menu planning, or demonstration of how to monitor one owns' weight and abdominal circumference.

**2.3: Adopt American Diabetes Association (ADA) and American Psychiatric Association (APA) Second Generation Antipsychotic (SGA) monitoring as a standard of care practice for the population with serious mental illness. Monitoring should include family history, BMI, waist circumference, FBS, lipids, and screening for the additional cardiometabolic risk factors of smoking and physical inactivity.**

Monitoring of people with SMI should include family history, BMI, waist circumference, FBS, lipids, and screening for the additional cardio metabolic risk factors of smoking and physical inactivity. Patients maintained on antipsychotics should:

- Be weighed on every visit;
- Receive testing of glucose and lipids every year;
- Receive blood pressure checks at 12 weeks and then annually; and
- Have waist circumference measured at baseline and annually.

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<sup>28</sup> From Wikipedia, the free encyclopedia , a progressive dinner is a dinner party in which each successive course is prepared and eaten at the residence of a different host. Alternatively, each course may be eaten at a different dining area within a single large establishment.

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If weight gain, glucose abnormalities, or hyperlipidemia occur, considerations should include lifestyle modifications and changing to medication with lower risk of weight gain. Consumers should be educated about the need for routine monitoring and may be able to self-monitor data such as weight and waist circumference. Referrals to primary care should also occur for treatment of medical conditions when appropriate.

**2.4: State Mental Health Authorities (SMHA) should collaborate with State Health Authorities (SHA) to address physical health assessment, health monitoring, and improvement options for the population with serious mental illness.**

The issue of obesity in people with SMI provides a unique opportunity to merge physical and behavioral healthcare. State Mental Health and Health Authorities can jointly support educational and policy efforts related to obesity, and should consider conjoined mental health and physical health clinics, like the federally qualified integrated clinics, by encouraging mental health care provider agencies to assume greater responsibility for the overall care of the person with SMI.

Linkages with public health programs and community-based programs in diabetes prevention and control, cardiovascular disease, and healthy weight management can be established. Many community-based programs for the general population exist which can support, aid, and augment mental health services. Cooperative extension services often provide nutritional counseling, food preparation, shopping, and other training for communities at no or minimal costs. Utilizing these natural community resources conserves SMHA resources and advances community inclusion of persons in the public mental health system.

**2.5: Bridge the collaboration gap between physical and mental health care.**

Behavioral health care systems, including State Mental Health Authorities (SMHA) should assume responsibility for assuring that individuals under their care receive the recommended routine screening, monitoring, and management of medical conditions including obesity. Behavioral health care systems and SMHAs have a specific responsibility since certain conditions (such as weight gain and its complications) may create an adverse effect on the prescribed pharmacological treatment regimens. Additionally, behavioral health care professionals may come into contact with mental health consumers on a more frequent basis. Treating persons with SMI in holistic ways should allow for a free flow of information between the physical and mental health sides.

**2.6: Monitor mental health consumers with diabetes and metabolic syndromes in mental health clinics.**

SMHAs should mandate and support implementation of care management protocols directed at simultaneous management of both mental health and

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diabetes designed to build on and support the individual's self-management skills. A quality improvement process can be developed in mental health settings that measures access, quality of care and outcomes for diabetes, and add health outcomes for physical health to mental health treatment plans.

**2.7: Establish linkages with public health programs and community-based programs in diabetes prevention and control, cardiovascular disease, and healthy weight management.**

Recommendations at the **Community Mental Health Center and other Provider Level** include:

**3.1: All people with SMI should have access to weight monitoring and weight management programs.**

Clinicians and mental health consumers are partners in the decision to address and treat weight problems. Clinicians should emphasize that even moderate weight loss can improve a persons' health, well-being, and extend the life of that individual.

Consumers and their families need to be educated on key weight management strategies:

- Energy expenditure must exceed energy intake to achieve weight loss (physical activity);
- Dietary interventions that increase knowledge about healthy eating such as reading Nutrition Facts labels, being aware of total calorie content, serving size, and nutrient values of different food products;
- Physical activity interventions: How to reduce sedentary behaviors (such as watching TV) and safely and slowly add more physical activity to ones' daily routine (such as walking);
- Utilize a "small steps approach" a combination of reduced energy intake (food) and increased physical activity that equal 100 kcal/day to prevent weight gain in most adults (for example, giving up one can of regular soda per day or adding 2,000 steps to ones' day);
- Increase awareness to engage and motivate mental health consumers to adopt a healthy lifestyle and make healthier choices;
- Utilizing an illness management, recovery, and wellness model, consumers should be educated on their different illness (i.e., schizophrenia and obesity), self regulation, and management;
- Inspire and encourage a healthy environment by offering healthy foods and beverages in all treatment settings and waiting areas. Provide and make available wellness fliers, posters, and other materials in visible areas such as waiting rooms and group room bulletin boards. Consider hosting wellness fairs;

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- Act as “healthy role” models by eating healthy snacks, lunches, and participating in regular physical activity; and
  - Highlight mental health consumer’s wellness achievements by sharing and recognizing successes.

**3.2: Weight control programs for people with SMI should incorporate nutrition, exercise, and behavioral strategies.**

Consumers and their families need to be educated on key weight management strategies:

- Energy expenditure must exceed energy intake to achieve weight loss (physical activity);
- Dietary interventions that increase knowledge about healthy eating such as reading Nutrition Facts labels, being aware of total calorie content, serving size, and nutrient values of different food products;
- Physical activity interventions: How to reduce sedentary behaviors (such as watching TV) and safely and slowly add more physical activity to ones’ daily routine (such as walking);
- Utilize a “small steps approach” a combination of reduced energy intake (food) and increased physical activity that equal 100 kcal/day to prevent weight gain in most adults (for example, giving up one can of regular soda per day or adding 2,000 steps to ones’ day);
- Increase awareness to engage and motivate mental health consumers to adopt a healthy lifestyle and make healthier choices;
- Utilizing an illness management, recovery, and wellness model, consumers should be educated on their different illness (i.e., schizophrenia and obesity), self regulation, and management;
- Inspire and encourage a healthy environment by offering healthy foods and beverages in all treatment settings and waiting areas. Provide and make available wellness fliers, posters, and other materials in visible areas such as waiting rooms and group room bulletin boards. Consider hosting wellness fairs;
- Act as “healthy role” models by eating healthy snacks, lunches, and participating in regular physical activity; and
- Highlight mental health consumer’s wellness achievements by sharing and recognizing successes.

Therapies that combine modifications on diet, behavior, and physical activity have been proven to be successful at obtaining weight loss. While the Solutions for Wellness Personalized and Manualized Programs are just two examples of this type of behavioral therapy program designed to achieve weight management and weight loss, other similar programs exist and should be implemented with patients with serious mental illness. Interventions should not be applied without regard to individual choice. Treatment alliance should be primary consideration with interventions other than education and encouragement only applied when the individual identifies weight control as their objective.

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**3.3: Prescribing clinicians should use medications with lower risk of weight gain when possible.**

Clinicians should include weight gain as a major factor to consider when recommending mental health medications. In general, medications that have a lower risk of weight gain should be preferred. Include the consumer when considering trade-offs between symptom control and risk of weight gain.

**3.4: Utilize weight loss medication with care when appropriate.**

Follow the NIH recommendation for consideration of pharmacological treatment of obesity with weight loss drugs in patients with a BMI  $\geq 30$  or a BMI  $\geq 27$  with at least two risk factors. Psychiatric side effects of these medications should be monitored more closely in this special population.

**3.5: In consultation with the patient, recommend bariatric surgery when all other methods of weight loss have been tried and failed.**

Follow the National Institutes of Health recommendation for considering and referring for bariatric surgery in persons with a BMI of 40 or higher; or a BMI of 35 or higher in a patient with a high-risk condition such as severe sleep apnea, obesity-related cardiomyopathy, or severe diabetes mellitus; and failure of medical weight control.

Use of bariatric surgery should be a treatment of last resort and offered after consulting with the patient assuring ability to give informed consent and carefully weighing the risks and benefits. People with SMI may benefit from additional pre and post operative supports. More research is needed.

**3.6: Encourage the development of novel approaches to educate and support weight control through community programs.**

Programs have developed a number of novel approaches to encourage staff and individuals with mental illness to make healthier lifestyle changes. These include holding “biggest loser” contests, walking clubs, and point of decision support. Simple things like reminders to consider using stairs instead of elevators can aid everyone to make healthier choices. Encouraging staff and recipients with mental illness to partner with an individual for support and motivation will also increase efficacy. Practice assignments which build on healthy decision-making, such as planning and holding a progressive dinner, increase the effectiveness of psycho-social interventions.

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# Attachment B

## Body Mass Index Table

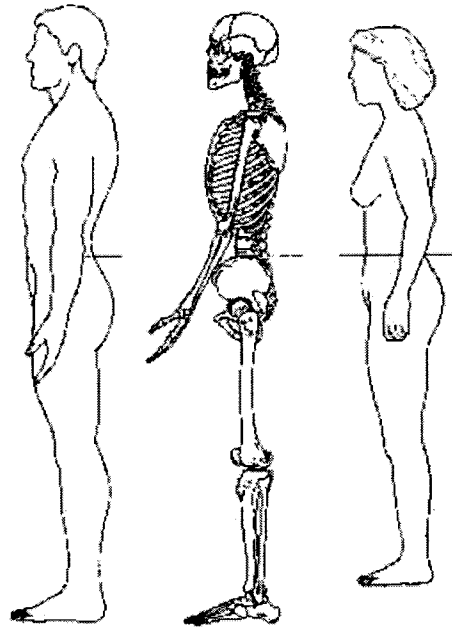
	Normal					Overweight					Obese					Extreme Obesity																						
BMI	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54		
Height (inches)	Body Weight (pounds)																																					
58	91	96	100	105	110	115	119	124	129	134	138	143	148	153	158	162	167	172	177	181	186	191	196	201	205	210	215	220	224	229	234	239	244	248	253	258		
59	94	99	104	109	114	119	124	128	133	138	143	148	153	158	163	168	173	178	183	188	193	198	203	208	212	217	222	227	232	237	242	247	252	257	262	267		
60	97	102	107	112	118	123	128	133	138	143	148	153	158	163	168	174	179	184	189	194	199	204	209	215	220	225	230	235	240	245	250	255	261	266	271	276		
61	100	106	111	116	122	127	132	137	143	148	153	158	164	169	174	180	185	190	195	201	206	211	217	222	227	232	238	243	248	254	259	264	269	275	280	285		
62	104	109	115	120	126	131	136	142	147	153	158	164	169	175	180	186	191	196	202	207	213	218	224	229	235	240	246	251	256	262	267	273	278	284	289	295		
63	107	113	118	124	130	135	141	146	152	158	163	169	175	180	186	191	197	203	208	214	220	225	231	237	242	248	254	259	265	270	276	282	287	293	299	304		
64	110	116	122	128	134	140	146	151	157	163	169	174	180	186	192	197	204	209	215	221	227	232	238	244	250	256	262	267	273	279	285	291	296	302	308	314		
65	114	120	126	132	138	144	150	156	162	168	174	180	186	192	198	204	210	216	222	228	234	240	246	252	258	264	270	276	282	288	294	300	306	312	318	324		
66	118	124	130	136	142	148	155	161	167	173	179	186	192	198	204	210	216	223	229	235	241	247	253	260	266	272	278	284	291	297	303	309	315	322	328	334		
67	121	127	134	140	146	153	159	166	172	178	185	191	198	204	211	217	223	230	236	242	249	255	261	268	274	280	287	293	299	306	312	319	325	331	338	344		
68	125	131	138	144	151	158	164	171	177	184	190	197	203	210	216	223	230	236	243	249	256	262	269	276	282	289	295	302	308	315	322	328	335	341	348	354		
69	128	135	142	149	155	162	169	176	182	189	196	203	209	216	223	230	236	243	250	257	263	270	277	284	291	297	304	311	318	324	331	338	345	351	358	365		
70	132	139	146	153	160	167	174	181	188	195	202	209	216	222	229	236	243	250	257	264	271	278	285	292	299	306	313	320	327	334	341	348	355	362	369	376		
71	136	143	150	157	165	172	179	186	193	200	208	215	222	229	236	243	250	257	265	272	279	286	293	301	308	315	322	329	338	343	351	358	365	372	379	386		
72	140	147	154	162	169	177	184	191	199	206	213	221	228	235	242	250	258	265	272	279	287	294	302	309	316	324	331	338	346	353	361	368	375	383	390	397		
73	144	151	159	166	174	182	189	197	204	212	219	227	235	242	250	257	265	272	280	288	295	302	310	318	325	333	340	348	355	363	371	378	386	393	401	408		
74	148	155	163	171	179	186	194	202	210	218	225	233	241	249	256	264	272	280	287	295	303	311	319	326	334	342	350	358	365	373	381	389	396	404	412	420		
75	152	160	168	176	184	192	200	208	216	224	232	240	248	256	264	272	279	287	295	303	311	319	327	335	343	351	359	367	375	383	391	399	407	415	423	431		
76	156	164	172	180	189	197	205	213	221	230	238	246	254	263	271	279	287	295	304	312	320	328	336	344	353	361	369	377	385	394	402	410	418	426	435	443		

Source: Adapted from Clinical Guidelines on the Identification, Evaluation, and Treatment of Overweight and Obesity in Adults: The Evidence Report.

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## Attachment C

### Measuring Tape Position for Waist (Abdominal) Circumference



The waist circumference at which there is an increased relative risk is defined as follows. Waist circumference cutpoints lose their incremental predictive power in patients with a BMI  $\geq 35$  kg/m<sup>2</sup> because these patients will exceed the cutpoints noted below.

HIGH RISK
Men: >102 cm ( >40 in.)
Women: >88 cm ( >35 in.)

---

**Evidence Statement:** Sex-specific cutoffs for waist circumference can be used to identify increased risk associated with abdominal fat in adults with a BMI in the range of 25 to 34.9 kg/m<sup>2</sup>. An increase in waist circumference may also be associated with increased risk in persons of normal weight. Evidence Category C.

Waist circumference cutpoints can generally be applied to all adult ethnic or racial groups. On the other hand, if a patient is very short (under 5 feet) or has a BMI above the 25 to 34.9 kg/m<sup>2</sup> range, waist cutpoints used for the general population may not be applicable. Evidence Category D.

NHLBI. *The Clinical Guidelines on the Identification, Evaluation, and Treatment of Overweight and Obesity in Adults*. Available at [http://www.nhlbi.nih.gov/guidelines/obesity/e\\_rvbis.rsgd/4142.htm](http://www.nhlbi.nih.gov/guidelines/obesity/e_rvbis.rsgd/4142.htm).

**Rationale:** A high waist circumference is associated with an increased risk for type 2 diabetes, dyslipidemia, hypertension, and CVD in patients with a BMI in a range between 25 and 34.9 kg/m<sup>2</sup> (Chan 1994). Monitoring changes in waist circumference over time may be helpful, in addition to measuring BMI, since it can provide an estimate of increased abdominal fat even in the absence of a change in BMI. Furthermore, in obese patients with metabolic complications, changes in waist circumference are useful predictors of changes in CVD risk factors (Lemieux 1996).

There are ethnic and age-related differences in body fat distribution that modify the predictive validity of waist circumference as a surrogate for abdominal fat (Gallagher 1996). These variations may partly explain differences between ethnic or age groups in the power of waist circumference or waist-to-hip (WHR) ratio to predict disease risks (Dowling 1993, Conway 1995).

In some populations, waist circumference is a better indicator of relative disease risk than is BMI: examples include Asian Americans or persons of Asian descent living elsewhere (Klatsy 1991, Fujimoto 1991, Potts 1994). Waist circumference also assumes greater value for estimating risk for obesity-related disease at older ages. The table below incorporates both BMI and waist circumference in the classification of overweight and obesity, and provides an indication of disease risk.

**Classification of Overweight and Obesity by BMI, Waist Circumference, and Associated Disease Risk\***

	BMI (kg/m <sup>2</sup> )	Obesity Class	Disease Risk* Relative to Normal Weight and Waist Circumference	
			Men ≤102 cm (≤ 40 in.) Women ≤88 cm (≤ 35 in.)	Men >102 cm (>40 in.) Women >88 cm (>35 in.)
Underweight	18.5		----	----
Normal+	18.5 - 24.9		----	----
Overweight	25.0 - 29.9		Increased	High
Obesity	30.0 - 34.9	I	High	Very High
	35.0 - 39.9	II	Very High	Very High
Extreme Obesity	≥40	III	Extremely High	Extremely High

\* Disease risk for type 2 diabetes, hypertension, and CVD.  
-Increased waist circumference can also be a marker for increased risk even in persons of normal weight.

**Recommendation:** For adult patients with a BMI of 25 to 34.9 kg/m<sup>2</sup>, sex-specific waist circumference cutoffs should be used in conjunction with BMI to identify increased disease risk. Evidence Category C.

**References**

Chan JM, Rimm EB, Colditz GA, Stampfer MJ, Willett WC. Obesity, fat distribution, and weight gain as risk factors for clinical diabetes in men. *Diabetes Care*. 1994;17:961-969.

Conway JM, Yanovski SZ, Avila NA, Hubbard VS. Visceral adipose tissue differences in black and white women. *Am J Clin Nutr*. 1995;61:765-771.

Dowling HJ, Pi-Sunyer FX. Race-dependent health risks of upper body obesity. *Diabetes*. 1993;42:537-543.

Fujimoto WY, Newell-Morris LL, Grote M, Bergstrom RW, Shuman WP. Visceral fat obesity and morbidity: NIDDM and atherogenic risk in Japanese-American men and women. *Int J Obes*. 1991;15 (Suppl2):41-44.

Gallagher D, Visser M, Sepulveda D, Pierson RN, Harns T, Heymsfield SB. How useful is body mass index for comparison of body fatness across age, sex, and ethnic groups? *Am J Epidemiol*. 1996;143:226-239.

Klatsky AL, Armstrong MA. Cardiovascular risk factors among Asian Americans living in northern California. *Am J Public Health*. 1991;81:1423-1426.

Lemieux S, Prud'homme D, Bouchard C, Tremblay A, Despres J. A single threshold value of waist girth identifies normal-weight and overweight subjects with excess visceral adipose tissue. *Am J Clin Nutr*. 1996;64:685-693.

Potts J, Simmons D. Sex and ethnic group differences in fat distribution in young United Kingdom South Asians and Europeans. *J Clin Epidemiol*. 1994;47:837-841.

NHLBI. *The Clinical Guidelines on the Identification, Evaluation, and Treatment of Overweight and Obesity in Adults*. Available at [http://www.nhlbi.nih.gov/guidelines/obesity\\_e\\_text/taxid/4142.htm](http://www.nhlbi.nih.gov/guidelines/obesity_e_text/taxid/4142.htm).

# Attachment D

## METABOLIC SCREENING AND MONITORING FORM

PATIENT NAME: \_\_\_\_\_

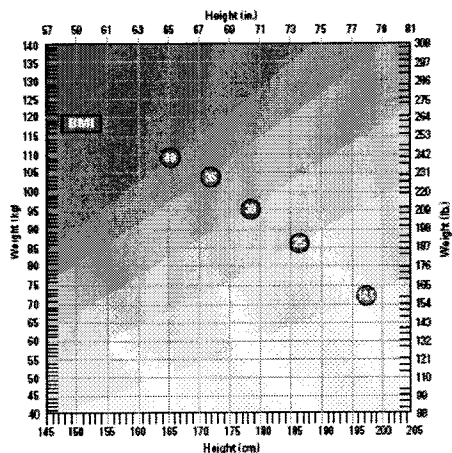
Physician: Screen for the following parameters annually. Increase the frequency of screening according to the level of risk (determined by the presence of one or more risk factors listed below and on the back of this form).

### ► Cardiometabolic Risk Monitoring Guidelines

SCREENING	RISK CRITERIA	BASELINE	NEXT VISIT	NEXT VISIT
		Date ____/____/____	____/____/____	____/____/____
<b>OBESITY</b> <sup>1</sup>	Consider BMI (weight/height in kg/m <sup>2</sup> ) at each visit: Normal (18.5–24.9); Overweight (25–29.9); Obese (≥ 30)	Height _____		
	Consider Waist Circumference (Abdominal Obesity) at each visit: Men ≥ 40 inches; Women ≥ 35 inches	Weight _____ BMI _____ Waist Circum. _____		
<b>DYSLIPIDEMIA</b> <sup>2</sup> <i>Use Tables 3 and 4 on the back of this form to determine target treatment levels (based on 10-year risk category).</i>	<b>Total Cholesterol</b>	_____		
	<b>LDL</b>	_____		
	<b>HDL and Triglycerides</b> (see below)	_____		
<b>METABOLIC SYNDROME (MS)</b> <sup>2</sup> <i>(≥ 3 criteria = Metabolic Syndrome)</i>	<b>HDL</b> (Men < 40 mg/dL; Women < 50 mg/dL, or drug Rx)	<input type="checkbox"/> At Risk	<input type="checkbox"/>	<input type="checkbox"/>
	<b>Triglycerides</b> (≥ 150 mg/dL, or drug Rx)	<input type="checkbox"/> At Risk	<input type="checkbox"/>	<input type="checkbox"/>
	<b>Abdominal Obesity</b> (Waist Circumference: Men ≥ 40 inches; Women ≥ 35 inches)	<input type="checkbox"/> At Risk	<input type="checkbox"/>	<input type="checkbox"/>
	<b>Blood Pressure</b> (≥ 130/20 mmHg, or drug Rx)	<input type="checkbox"/> At Risk	<input type="checkbox"/>	<input type="checkbox"/>
	<b>Fasting Plasma Glucose</b> (≥ 100 mg/dL, or drug Rx)	<input type="checkbox"/> At Risk	<input type="checkbox"/>	<input type="checkbox"/>
<b>PREDIABETES/ DIABETES MELLITUS</b> <sup>1</sup> <i>Fasting Plasma Glucose Normal &lt; 100 mg/dL Prediabetes 100–125 mg/dL Diabetes ≥ 126 mg/dL</i>	<b>Fasting Plasma Glucose</b>	_____		
	<b>Optional 2h PG</b>	_____		

Table 1: Body Mass Index Adapted from NHLBI Clinical Guidelines.<sup>2</sup>

Note: This table does not take into account age, sex, or ethnicity.



### BACK-OF-FORM CONTENTS

- Diabetes Risk Factors
- Diabetes Classification and Intervention Chart
- Cardiovascular Disease (CYD) Risk Factors
- 10-Year Risk Calculation for Coronary Heart Disease
- Target Lipid Levels Chart

Form by John W. Newcomer, MD and Dan W. Haupt, MD.  
Compiled primarily from ATP III and ADA guidelines.<sup>1,2,3</sup>

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**Diabetes Risk Factors<sup>1,4</sup>** (check all that apply)

- Overweight or obese state (BMI  $\geq 25$  kg/m<sup>2</sup>)
- Sedentary lifestyle
- Hypertension (> 140/90 mmHg in adults)
- History of vascular disease
- Family history of diabetes
- Race/ethnicity†
- History of IFG or IGT
- Psychiatric illness
- HDL  $\leq 35$  mg/dL and/or triglyceride  $\geq 250$  mg/dL
- Female:
  - History of GDM or delivery of macrosomic infant
  - Polycystic ovary syndrome

\*May not be correct for all ethnic groups; †High-risk ethnic groups include Latino/Hispanic, Non-Hispanic black, Asian American, Native American, or Pacific Islander ethnicity  
IFG = Impaired Fasting Glucose; IGT = Impaired Glucose Tolerance; FPG = Fasting Plasma Glucose; GDM = Gestational Diabetes Mellitus

**Table 2: Diabetes Risk: Classification and Intervention Chart**

Screen with FPG every 3 years for persons aged 45 and older. Test persons earlier than age 45 and more frequently who are overweight (BMI  $\geq 25$ ) or have the presence of more than one risk factor.<sup>1,4</sup>

CLASSIFICATION	FPG (mg/dL)	and	2hPG (mg/dL)	INTERVENTION
Normal	< 100	and	< 140	Rescreen as clinically indicated.
Prediabetes	100–125	and	< 140–199	Implement strategies (i.e., diet, therapeutic lifestyle changes, and medication) to prevent diabetes and modify CVD risk factors. Rescreen for diabetes at appropriate intervals.
Diabetes	$\geq 126$	or	$\geq 200$	Initiate pharmacotherapeutic intervention immediately.

FPG = Fasting Plasma Glucose; 2hPG = Two-hour Postload Glucose

**Cardiovascular Disease (CVD) Risk Factors** (check all that apply)

- Cigarette smoking
- Low HDL cholesterol (< 40 mg/dL)
- Age (men > 45 years; women > 55 years)
- Hypertension (BP > 140/90 mmHg or on antihypertensive medication)
- Family history of premature CHD (CHD in male first degree relative < 55 years; CHD in female first degree relative < 65 years)

**Table 3: Ten-Year Risk Model of Calculating Risk Category for Coronary Heart Disease (CHD)<sup>2</sup>**

Use the following risk factor charts to assess the percentage of risk of CHD in a patient without diabetes mellitus or clinically evident cardiovascular disease. Circle the risk points for each factor. Add together all of the risk points and then determine the gender appropriate 10-year risk using the charts below.

AGE RISK FACTOR		CHOLESTEROL RISK FACTOR					HDL-C RISK FACTOR			SYSTEMIC BLOOD PRESSURE RISK FACTOR							
Age (years)	Risk Points for MEN	Total Cholesterol (mmol/L)	Risk Points for MEN age:					Risk Points for WOMEN			(mmol/L)	Risk Points for MEN		Risk Points for WOMEN			
			< 39	40–49	50–59	60–69	70–79	< 39	40–49	50–59	60–69	70–79	$\geq 1.55$	-1		-1	
20–34	-8	-2	0	0	0	0	0	0	0	0	0	0	1.3–1.54	0		0	
35–39	-4	-3	0	0	0	0	0	0	0	0	0	0	1.04–1.29	1		1	
40–44	0	0	4	3	2	1	0	4	3	2	1	1	< 1.04	2		2	
45–49	3	3	7	5	3	1	0	8	6	4	2	1					
50–54	6	6	8	6	4	2	1	11	8	5	3	2					
55–59	8	8	$\geq 7.21$	11	8	5	3	13	10	7	4	2					
60–64	10	10															
65–69	11	12															
70–74	12	14															
75–79	13	16															

**CORONARY HEART DISEASE 10-YEAR RISK — MEN**

Total Risk Points	< 0	0–4	5–6	7	8	9	10	11	12	13	14	15	16	$\geq 17$
10-YEAR RISK	< 1%	1%	2%	3%	4%	5%	6%	8%	10%	12%	16%	20%	25%	$\geq 30\%$

**CORONARY HEART DISEASE 10-YEAR RISK — WOMEN**

Total Risk Points	< 5	6–12	13–14	15	16	17	18	19	20	21	22	23	24	$\geq 25$
10-YEAR RISK	< 1%	1%	2%	3%	4%	5%	6%	8%	11%	14%	17%	22%	27%	$\geq 30\%$

Table adapted from the Framingham Heart Study. Recent recommendations suggest that mental disease and treatment can increase metabolic risks.<sup>2</sup> Consider therapeutic lifestyle change recommendations and psychotropic treatment choices that mitigate future risk.

**Table 4: Risk Categories and Target Lipid Levels<sup>3</sup>**

Calculate the 10-year risk of CHD using Table 3 above, then identify target treatment lipid levels below.

RISK CATEGORY	TARGET LEVEL			
	LDL-C Level (mg/dL)		Optional LDL-C Target Level	
<b>High</b> <sup>a</sup> (10-year risk from Table 3 $\geq 20\%$ or history of diabetes mellitus or any atherosclerotic disease)	< 100	and	< 70	
<b>Moderate</b> (10-year risk 11%–19%)	< 130	and	< 100	
<b>Low</b> (10-year risk $\leq 10\%$ )	< 160	and	NA	

<sup>a</sup>Apolipoprotein B can be used as an alternative measurement, particularly for follow-up of patients treated with statins. Optimal levels of apolipoprotein B in a patient at high risk is < 0.9 g/L, moderate risk < 1.05 g/L, low risk < 1.2 g/L.

**REFERENCES**

**Metabolic Screening and Monitoring Form**

- American Diabetes Association. Screening for type 2 diabetes. Diabetes Care. 2004;27(suppl 1):S11–14.
- Grundy SM, Cleeman J, Daniels SR, et al. Diagnosis and management of the metabolic syndrome: an American Heart Association/National Heart, Lung, and Blood Institute scientific statement. Curr Opin Cardiol. Jan 2006;21(1):1–6.
- National Heart, Lung, and Blood Institute. The practical guide identification, evaluation, and treatment of overweight and obesity in adults. NIH publication no. 00-4084, October 2000 (pg. 46).
- American Association of Clinical Endocrinologists (AACE). Medical guidelines for the clinical practice for the management of diabetes mellitus. AACE Diabetes Mellitus Clinical Practice Guidelines Task Force. Endocrine Practice. Vol 13 (suppl 1) May/June 2007.

Produced by **Compact** Clinicals Kansas City, MO

TABLE 1. Medications Approved for the Long- and Short-Term Treatment of Obesity

Generic	Brand Name	Dose	Mechanism of Action	Precautions	Side Effects	Drug-Drug Interaction	Drug-Food Interaction
<b>Long-term treatment</b>							
Orlistat	Xenical	120 mg orally with each meal	Peripheral lipase inhibitor (30% of consumed fats passed unabsorbed/undigested)	Maintain dose of $\approx$ 30% fat, not safe in pregnancy	Fatty/oily stools, loose stools, flatulence (temporary), reduced absorption of fat-soluble nutrients, eg, vitamins E, K, beta carotene May complicate gallbladder problems or history of kidney stones Body ache/chills Less common: chest tightness or trouble breathing	Cyclosporine Statins (additive antilipemic effects with statins) Warfarin (reduced vitamin K absorption)	None
Sibutramine	Meridia	5–15 mg orally once a day	Central, inhibits reuptake of serotonin and norepinephrine	May be habit-forming; use with caution in patients with hypertension, stroke, heart disease, history of gallstones, liver or kidney disease; not safe in pregnancy	Dry mouth, constipation, drowsiness, insomnia, headache, increased blood pressure, tachycardia	Decongestants, eg, pseudoephedrine, phenylpropanolamine Cough suppressants, eg, dextromethorphan Antidepressants Lithium Monoamine oxidase inhibitors Migraine drugs, eg, ergots tryptans Select opioids Ketoconazole Erythromycin Antihypertensives Certain antihistamines Antiepileptic drugs Sedatives Serotonergic agents Tryptophan	None
<b>Short-term treatment</b>							
Phentermine	Ionamin, Fastin, Adipex	15–37.5 mg, single or split dose	Stimulates central release of norepinephrine	Contraindicated sympathomimetics/monoamine oxidase inhibitors; furazolidone	Central nervous system stimulation, palpitations, tachycardia, dry mouth, insomnia	Selective serotonin reuptake inhibitors Tricyclics Guanethidine Any sympathomimetic	None

Taken from Palamara, K.L., Mogul, H.R., Peterson, S.L., Frishman, W.H. (September/October 2006). Obesity: New Perspectives and Pharmacotherapies. *Cardiology in Review*, Vol. 14, No. 5, pp. 238-258.

Taken from Palamara, K.L., Mogul, H.R., Peterson, S.J., Frishman, W.H. (September/October 2006). Obesity: New Perspectives and Pharmacotherapies. *Cardiology in Review*, Vol. 14, No. 5, pp. 238-258.

**TABLE 4. U.S. Food and Drug Administration-Approved Medications Used Off Label in the Treatment of Obesity**

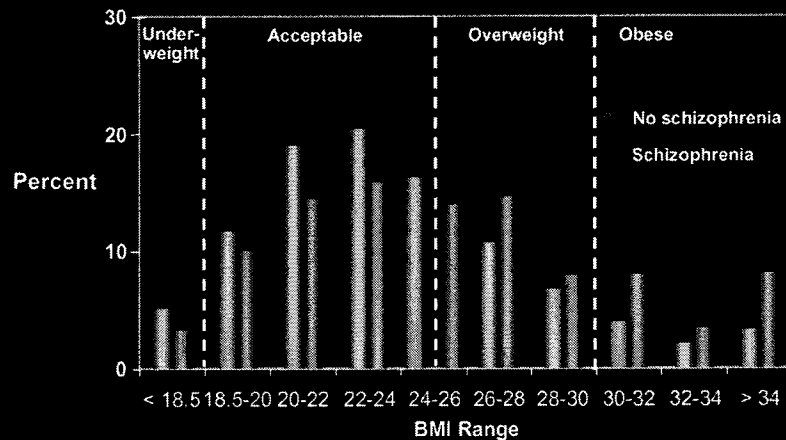
Generic	Brand Name	Dose	Mechanism of Action	Precautions	Side Effects	Drug-Drug Interaction	Drug-Food Interaction
Metformin	Glucophage	Initiate with 500 mg/d and increase weekly to 1000-2000 mg/day in divided doses	Reduces food intake; also lowers insulin and free fatty acids; exact primary mechanism in weight reduction not identified	Contraindicated in patients with renal impairment (creatinine >1.5), hepatic disease, congestive heart failure, chronic pulmonary disorders, or alcohol abuse; discontinue 48 h before and after general anesthesia or use of iodinated contrast materials; discontinue with severe fever or dehydration secondary to vomiting or diarrhea	Diarrhea, nausea, vomiting, abdominal bloating, flatulence, and anorexia (generally transient); pregnancy can occur as a result of increased fertility	Iodinated contrast materials Sulfonylurea and/or insulin—hypoglycemia Furosemide—increases plasma concentrations of both drugs Nifedipine—increases plasma concentrations of metformin with minimal change in pharmacokinetics Cimetidine—increases plasma concentration of metformin Adrenergic-blocking agents—beta blockers increase the frequency and severity of hypoglycemia Alcohol—increased risk of hypoglycemia and acidosis Clomiphene—increased ovulatory response	None
Topiramate	Topamax	25-100 mg	GABAergic	Drowsiness, blood dyscrasias, liver function test abnormalities	Confusion, dizziness, nervousness, paresthesias, breast pain, nausea, tremors, memory and cognitive impairment	None listed	None listed
Zonisamide	Zonegran	100-600 mg/day	Serotonergic and dopaminergic	Contraindicated in patients with hypersensitivity to sulfonamides; discontinue if skin rash develops; caution in patients with renal and hepatic impairment; may cause kidney stones; discontinue if patient develops acute renal failure or sustained elevated blood urea nitrogen/creatinine; teratogenic	Somnolence, dizziness, headache, nausea, agitation/irritability, fatigue	None listed	None listed
Bupropion	Wellbutrin	100 mg twice a day or 75 mg once daily	Precise mechanism not known	Do not use in patients with renal and hepatic impairment; avoid alcohol; monitor for seizures	Agitation, anxiety, abdominal pain, anorexia, constipation, dizziness, dry mouth, increased sweating, insomnia, nausea, tremors, vomiting, weight loss	Monoamine oxidase inhibitors—contraindicated Ritonavir—moderate	None

GABA indicates  $\gamma$ -aminobutyric acid.

## Attachment F

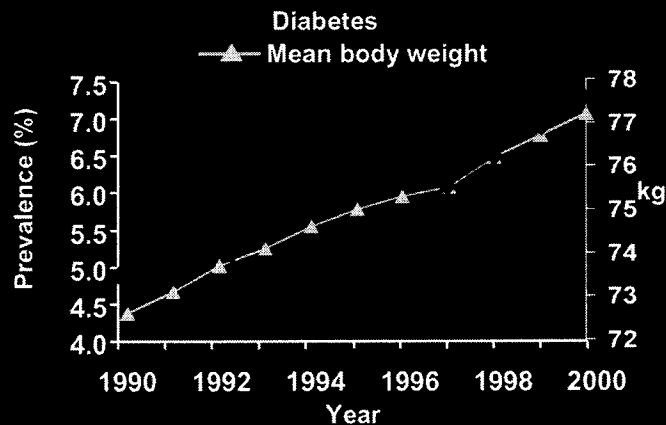
The following selections of slides were presented at the work group meeting by John W. Newcomer, MD. They provide additional information related to adiposity, medical risk, and switching medications in persons with mental illness.

### BMI Distributions for General Population and Those With Schizophrenia (1989)



Allison DB et al. *J Clin Psychiatry*. 1999;60:215-220.

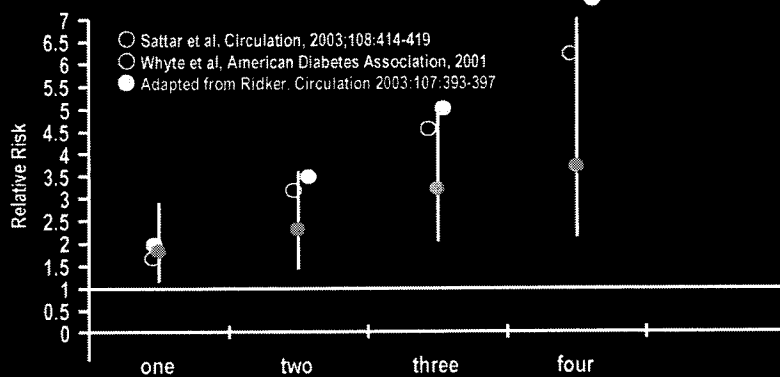
### Diabetes and obesity in the US



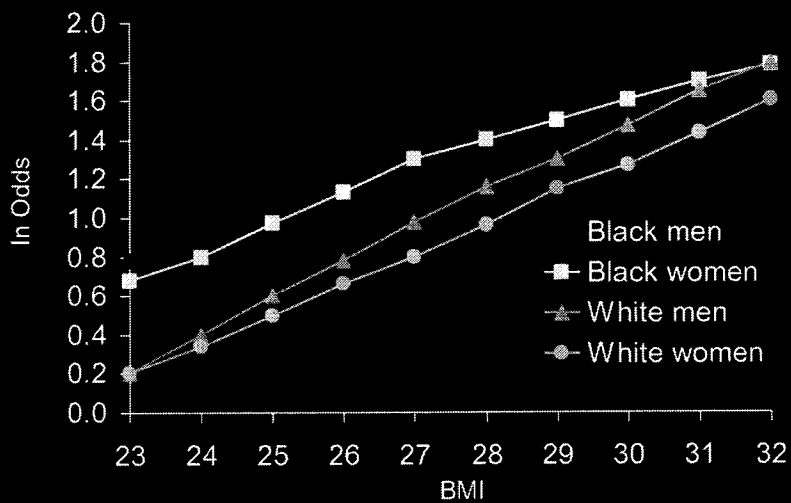
Mokdad et al. *Diabetes Care*. 2000;23:1278.  
 Mokdad et al. *JAMA*. 1999;282:1519.  
 Mokdad et al. *JAMA*. 2001;286:1195.



## CHD Risk Increases With Increasing Number of Metabolic Syndrome Risk Factors



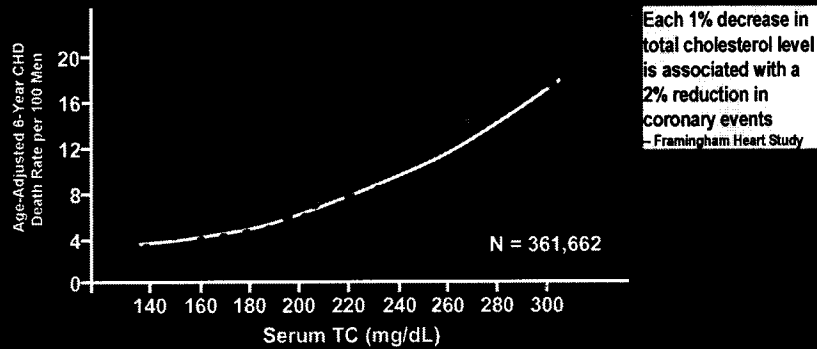
## Adjusted Log-Odds of Diabetes in Relation to Baseline BMI by Sex and Race



Diabetes Care. 1998;21:1833.

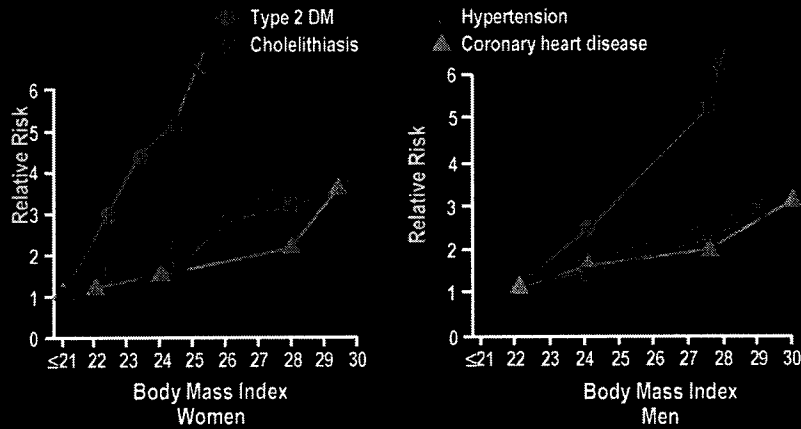
# Relationship Between Cholesterol and CHD Risk

Screenees for Multiple Risk Factor Intervention Trial (MRFIT)



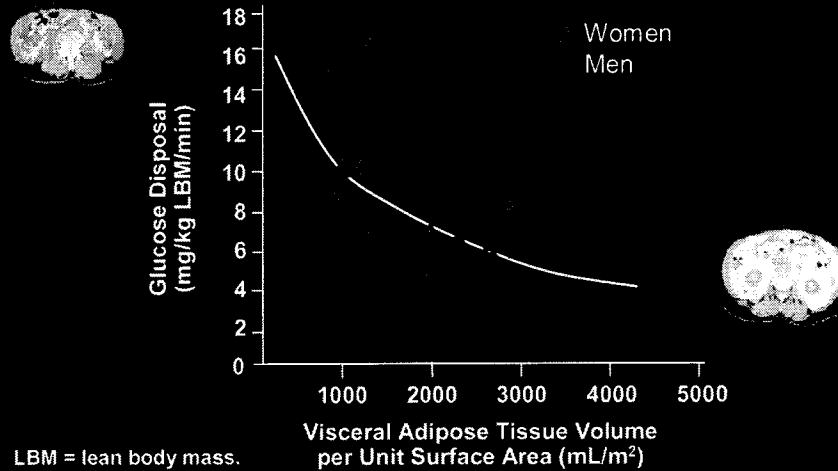
LaRosa JC, et al. *Circulation* 1990;81:1721-1733.  
Data from: MRFIT. *JAMA* 1982;248:1465-1477.

# Adiposity and Medical Diseases

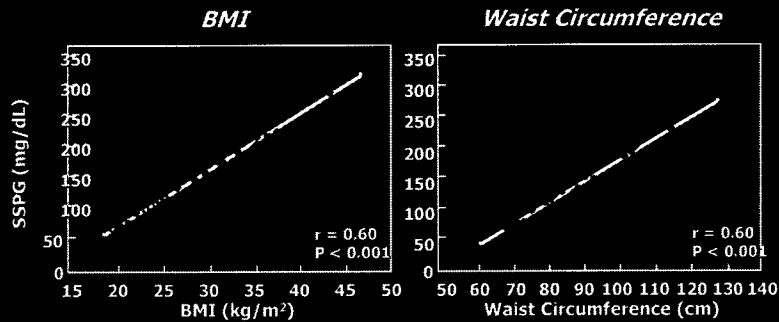


Willett WC, Dietz WH, Colditz GA. *N Engl J Med* 1999 Aug 5;341(6):427-434

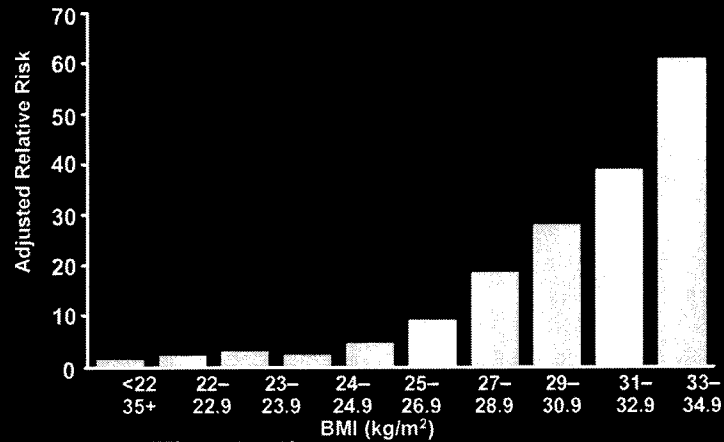
## Relationship Between Visceral Adipose Tissue and Insulin Action



## Relationship Between Insulin Resistance and either BMI or Waist Circumference

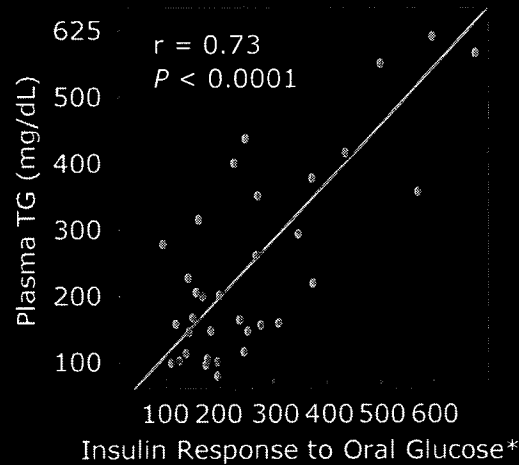


## Body Mass Index (BMI) And Relative Risk Of Type 2 Diabetes



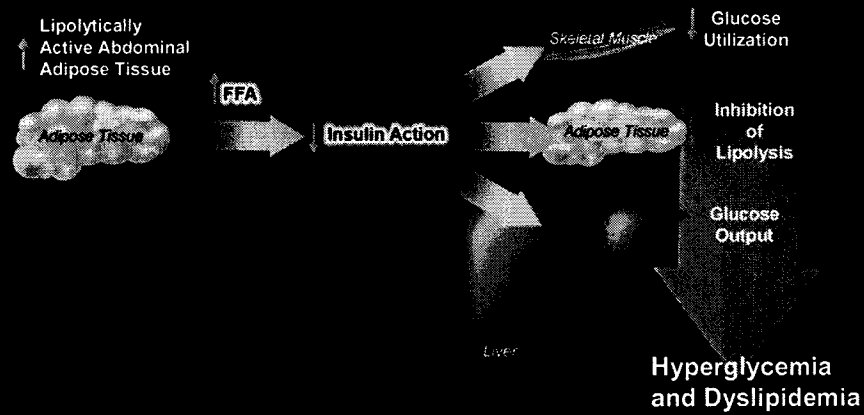
In women age 35-55 years in 1976; data adjusted for age.  
Adapted from Colditz et al. *Am J Epidemiol.* 1990;132:501-513.

## Relation Between Insulin Resistance and Hypertriglyceridemia



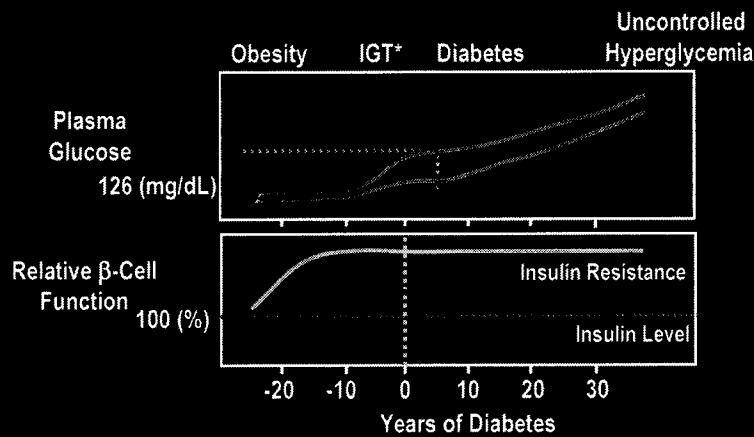
\* Total area under 3-hour response curve (mean of 2 tests).  
Olefsky JM et al. *Am J Med.* 1974;57:551-560.

## Adiposity and Insulin Resistance



Steinberg HO, Baron AD. *Diabetologia*. 2002;45:623-63  
 Caballero AE. *Obesity Res*. 2003;11:1278-128  
 Reaven GM. *Diabetes*. 1988;37:1595-160

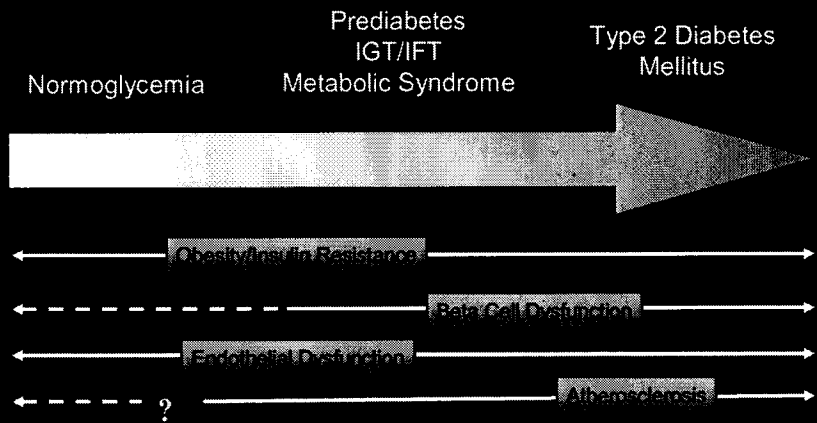
## Natural History of Type 2 Diabetes



\*IGT = impaired glucose tolerance

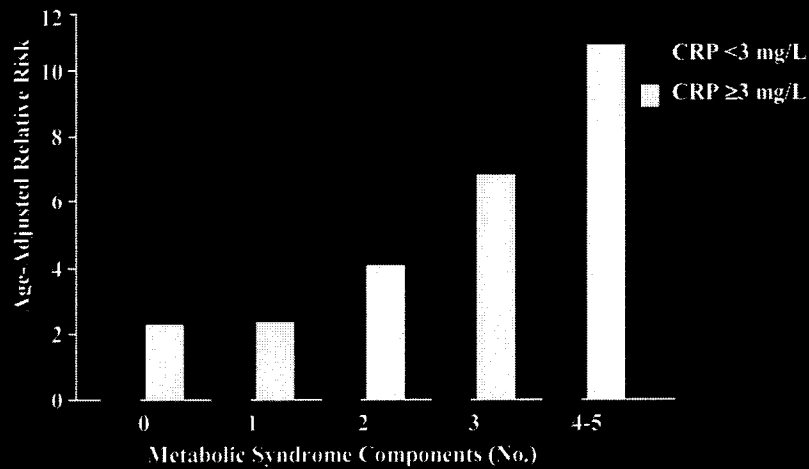
Adapted from: International Diabetes Center (IDC), Minneapolis, Minnesota.

# Obesity, Insulin Resistance, Endothelial Dysfunction, and Atherosclerosis



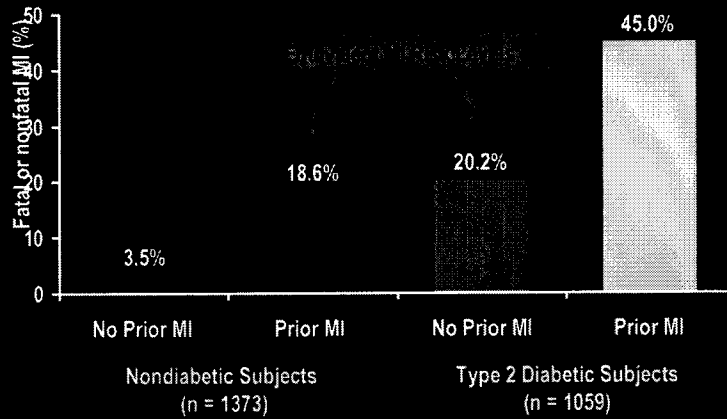
Stenberg HO, Baron AD. *Diabetologia*. 2002;45:623-634.  
Caballero AE. *Obesity Res*. 2003;11:1278-1289.

## Risk of Future CV Events: CRP and the Metabolic Syndrome



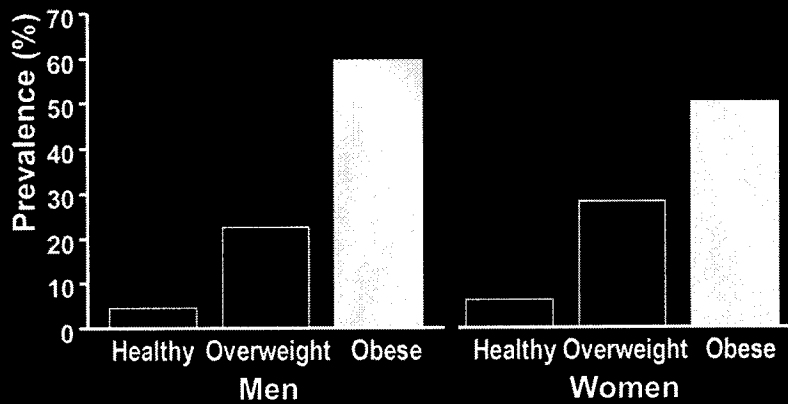
N = 14,719.  
Ridker et al. *Circulation*. 2003;107:391-397.

## Incidence of MI During 7-Year Follow-Up



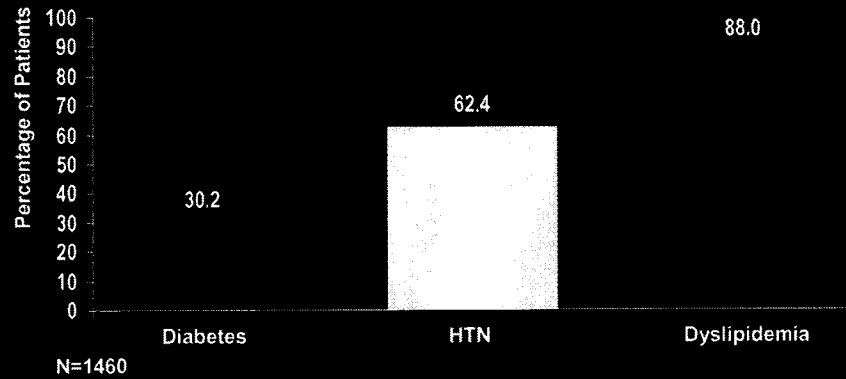
Haffner SM et al. *N Engl J Med.* 1998;339:229-234.

## Prevalence of Metabolic Syndrome According to BMI



"Overweight" = BMI 25-29.9; "obese" = BMI  $\geq$ 30 (National Heart, Lung and Blood Institute, Obesity Guidelines); N=12,363; Park YW, Zhu S, Palaniappan L, et al. *Arch Intern Med.* 2003(Feb 24);163:427-436

## Prevention Opportunities Missed: Low Rates of Treatment for Metabolic Disorders In Schizophrenia in CATIE



Nasrallah H et al. *Schizophrenia Research* 2006; 86:15–22

## Psychotropic-Associated Weight Gain

### Data from Pivotal Trials

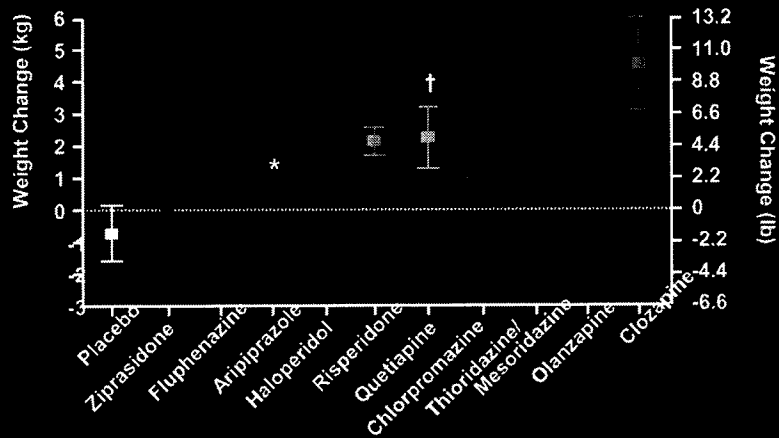
Agents	% Weight Gain	Length	Mean Change
Lithium <sup>1</sup>	62%	1 year	4.0 kg
Valproate <sup>2</sup>	21%	1 year	Not reported
Agents	% Weight Gain	Length	Mean Change
Olanzapine <sup>3</sup>	29%	6 weeks	+2.8 kg
Quetiapine <sup>3</sup>	21%	6 weeks	+2.6 kg
Risperidone <sup>3</sup>	18%	6 weeks	+1.6 kg

FDA = US Food and Drug Administration; N/R = not reported. \*Weight gain was stratified according to BMI.  
1. Peselow ED, et al. *J Affect Disord.* 1980;2:303-310. 2. Bowden CL, et al. *Arch Gen Psychiatry.* 2000;57:481-489.  
3. Adapted from: Prescribing Information. *Physicians' Desk Reference.* 59th ed. Montvale, NJ: Medical Economics Co; 2005.



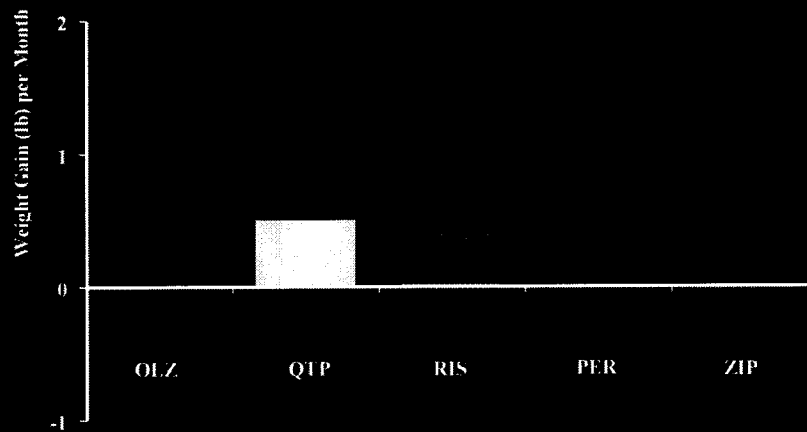
## Mean Change in Weight With Antipsychotics

Estimated Weight Change at 10 Weeks on "Standard" Dose



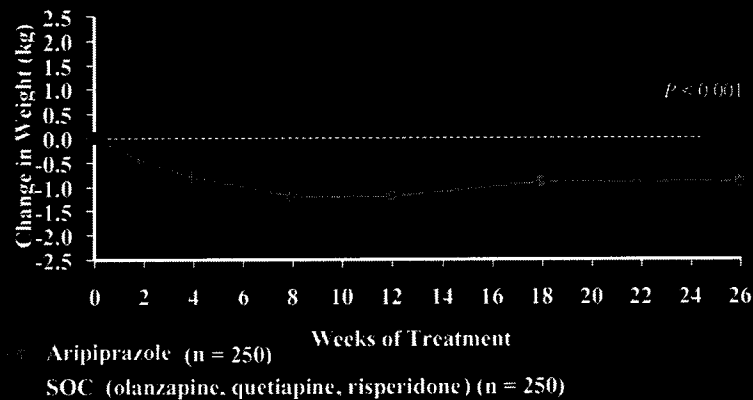
\*4-6 week pooled data (Marder SR et al. *Schizophr Res.* 2003;1:61:123-36; †6-week data adapted from Allison DB, Mentore JL, Heo M, et al. *Am J Psychiatry.* 1999;156:1686-1696; Jones AM et al. *ACNP;* 1999.

## CATIE Phase 1 Trial Results: Weight Gain per Month of Treatment



Lieberman JA, et al. *N Engl J Med.* 2005;353:1209-1223.

## STAR Trial: Weight Change Over 26 Weeks



Kerwin R, et al. A Multicentre, Randomized, Naturalistic, Open-Label Study Between Aripiprazole and Standard of Care In the Management of Community-Treated Schizophrenic Patients - Schizophrenia Trial of Aripiprazole (STAR) Study. *European Psychiatry*. In Press.


## ADA Consensus on Antipsychotic Drugs and Obesity and Diabetes: Monitoring Protocol\*

	Start	4 wks	8 wks	12 wks	3 mos.	12 mos.	5 yrs.
Personal/family Hx	X					X	
Weight (BMI)	X	X	X	X	X		
Waist circumference	X					X	
Blood pressure	X			X		X	
Fasting glucose	X			X		X	
Fasting lipid profile	X			X		X	X

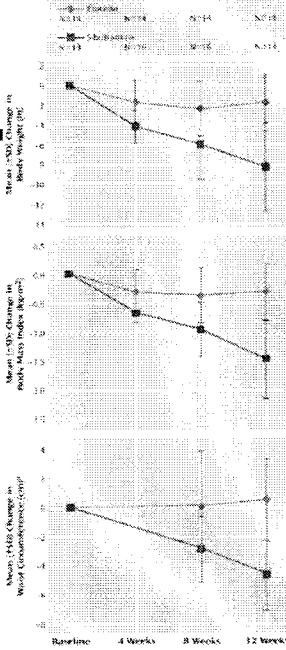
\*More frequent assessments may be warranted based on clinical status  
*Diabetes Care*, 27:596-601, 2004

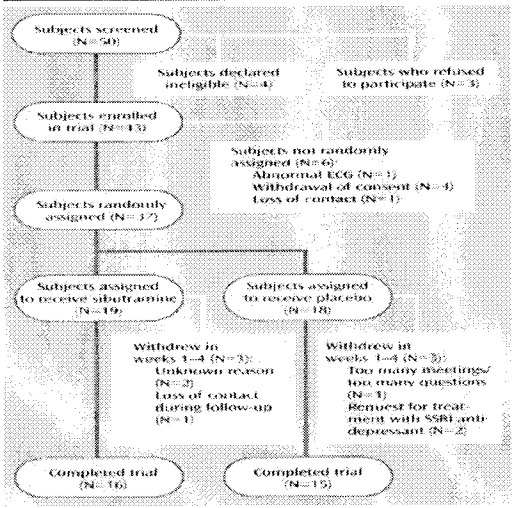
# Attachment G

The following selection of slides were presented at the work group meeting by Rohan Ganguli, M.D. They provide additional information related to medications for weight loss in persons with mental illness.



## SIBUTRAMINE FOR OLANZAPINE INDUCED WEIGHT GAIN





**TABLE 6. Patients Who Reported Adverse Events in a 12-Week Placebo-Controlled Trial of Sibutramine for Olanzapine-Associated Weight Gain**

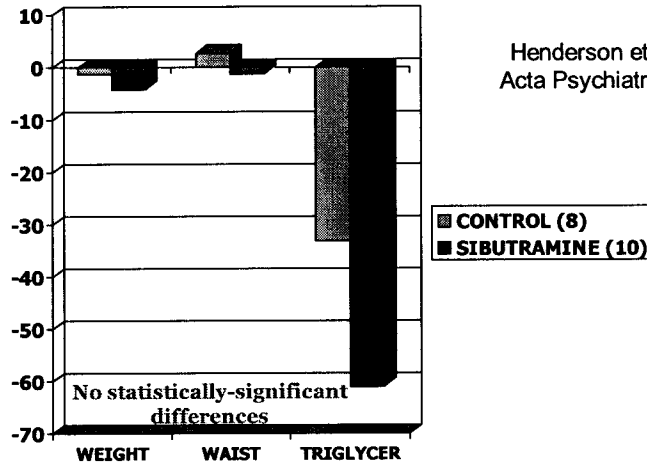
Adverse Event	Patients Reporting Adverse Event, Controlled for Baseline Level			
	Placebo (N=17)		Sibutramine (N=19)	
	N	%	N	%
Rapid heart rate	1	6	2	11
Headaches	5	29	4	21
Difficulty falling asleep	5	29	7	37
Interrupted sleep <sup>a</sup>	1	6	5	26
Shortened sleep <sup>a</sup>	2	12	5	26
Early waking	3	18	3	16
Decreased appetite	11	65	12	63
Excessive appetite	6	35	3	16
Excessive thirst <sup>a</sup>	2	12	5	26
Dry mouth <sup>a</sup>	2	12	8	42
Nausea	6	35	4	21
Constipation <sup>a</sup>	2	12	5	26
Rhinitis	4	24	4	21
Dizziness	3	18	1	5
Blurred vision <sup>a</sup>	1	6	3	16

<sup>a</sup> Occurred in more than 5% of the patients taking sibutramine and was at least twice as common as in the placebo group.

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## SIBUTRAMINE FOR CLOZAPINE-INDUCED WEIGHT GAIN



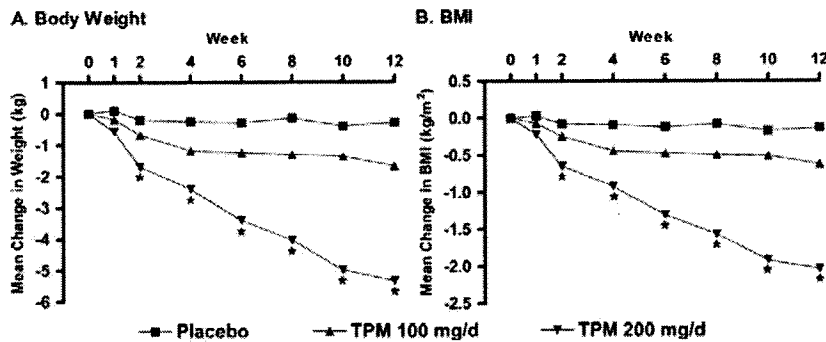
Henderson et al., 2007  
Acta Psychiatrica Scand.

Rohan Ganguli, M.D.



## TOPIRAMATE FOR WEIGHT LOSS

\* Not FDA-approved for weight loss

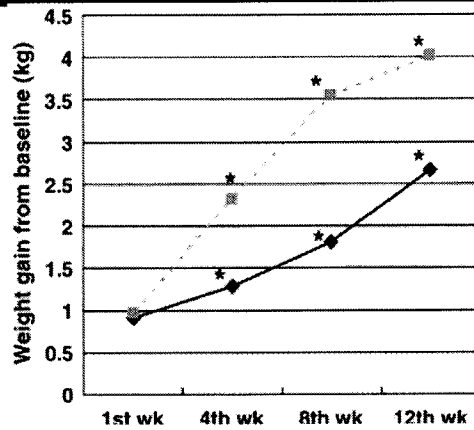


Ko YH, Joe SH, Jung IK, Kim SH. (2005) Topiramate as an adjuvant treatment with atypical antipsychotics in schizophrenic patients experiencing weight gain. *Clin Neuropharmacol* 28(4):169-75

Rohan Ganguli, M.D.



## TOPIRAMATE TO PREVENT WEIGHT GAIN



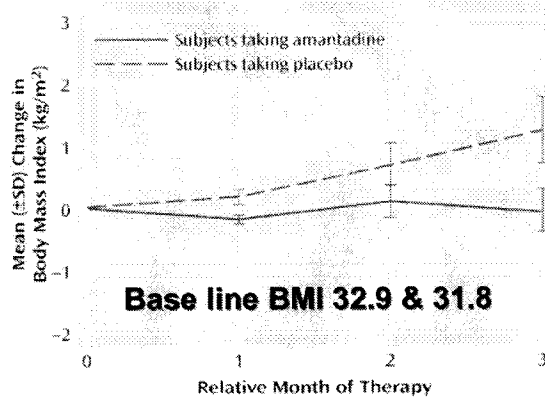
\* Not FDA-approved for weight loss

—◆— OLA+TOP  
-■- OLA

Kim JH, Yim SJ, Nam JH. A12-week, randomized, open-label, parallelgroup trial of topiramate in limiting weight gain during olanzapine treatment in patients with schizophrenia. *Schizophr Res* 2006;82:115-7 Rohan Ganguli, M.D.



## AMANTADINE\* IN OBESE SUBJECTS TAKING OLANZAPINE



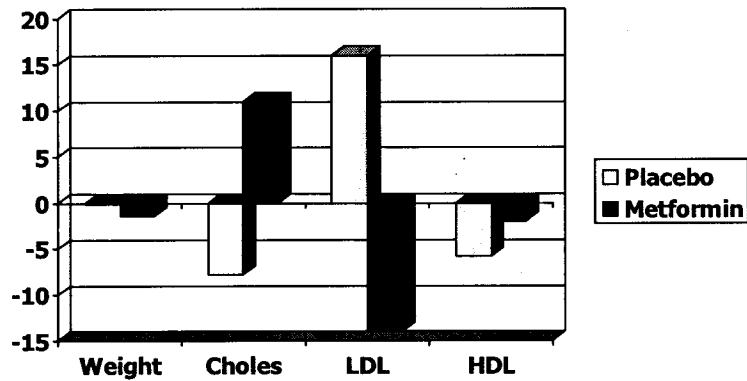
Graham et al., 2005  
*American J Psychiatry*

\* Not FDA-approved for weight loss

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## METFORMIN IN PATIENTS ON OLANZAPINE WHO HAVE ALREADY GAINED WEIGHT

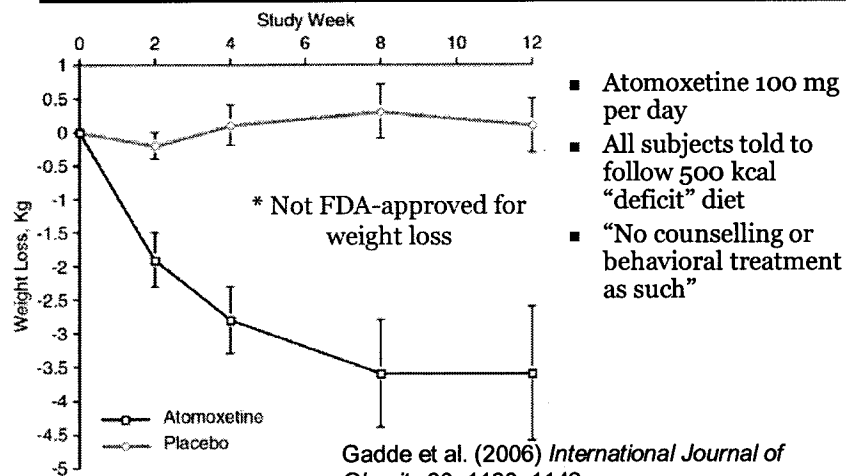


T. Baptista et al. (2007) *Schizophrenia Research* 93: 99–108

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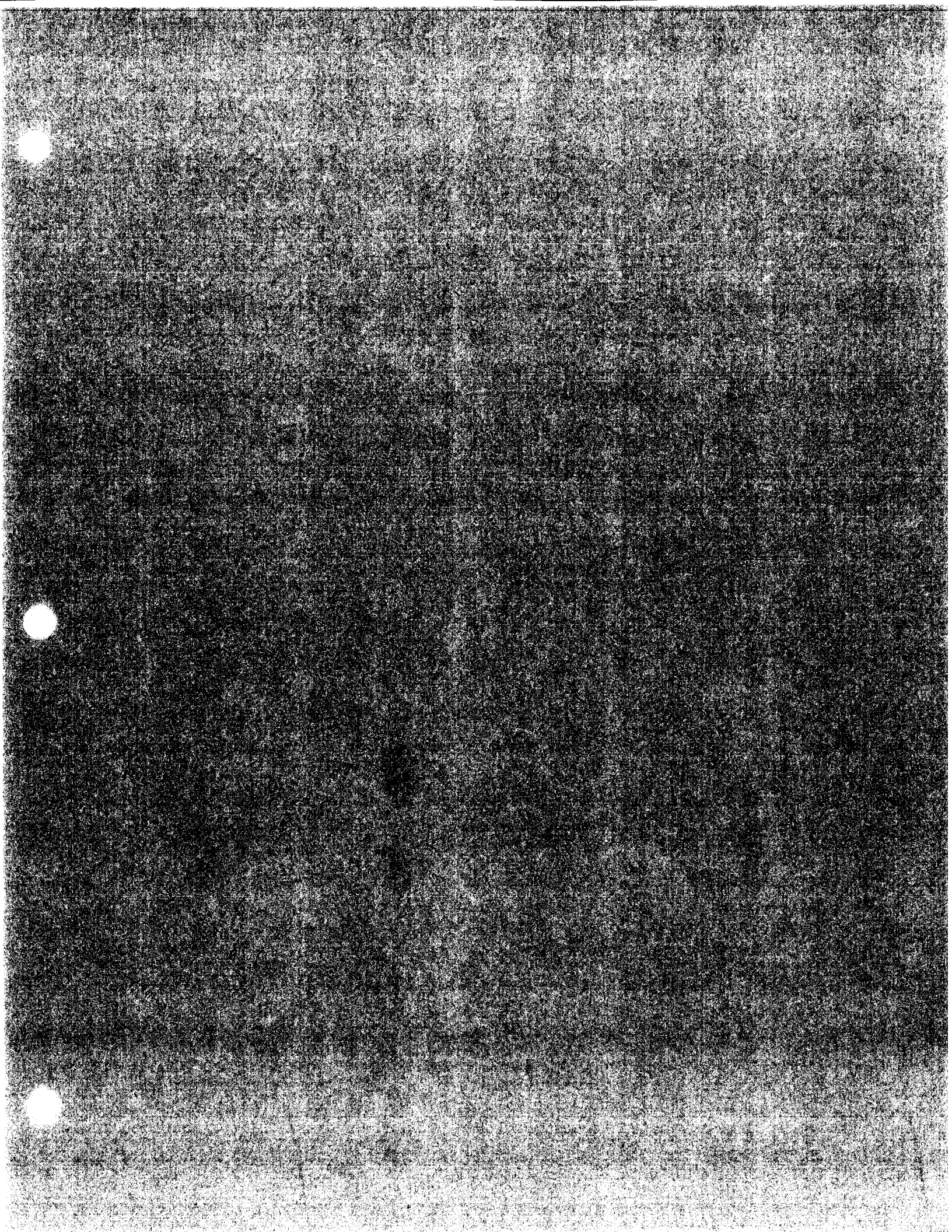


## ATOMOXETINE FOR WEIGHT LOSS



Gadde et al. (2006) *International Journal of Obesity* 30, 1138–1142

Rohan Ganguli, M.D.



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# Olmstead v L.C.:

## *Implications for Family Caregivers*

POLICY BRIEF NO. 6

☆ ☆ ☆

COMMISSIONED FOR

**Who Will Provide Care?**  
*Emerging Issues for State Policymakers*

FUNDED BY

*The Robert Wood Johnson Foundation*

OCTOBER 2001

**Sara Rosenbaum, J.D.**  
Harold and Jane Hirsh Professor,  
Health Law and Policy,  
George Washington University  
School of Public Health and Health Services



FAMILY CAREGIVER ALLIANCE®  
*National Center on Caregiving*



# Olmstead v L.C.:

## *Implications for Family Caregivers*

Sara Rosenbaum, J.D.

### INTRODUCTION

In 1999 the United States Supreme Court held in the landmark case *Olmstead v L.C.* that the medically unjustifiable institutionalization of persons with disabilities constitutes a violation of the Americans with Disabilities Act (ADA). It ruled that when a state's own medical professionals reasonably conclude that an individual is able to reside in the community, the state must make reasonable modifications to furnish community services in the most integrated setting unless the state can prove that to do so would require a fundamental alteration of its program.

The *Olmstead* decision reflects the enormous shift, embodied in the ADA, in how society views persons with disabilities as well as what Americans have come to expect in terms of the integration of persons with disabilities into the broader community. Furthermore, the decision is sweeping in its implications. The terms of the ADA are not limited by age or by type of disability: the law protects persons of any age who meet its functional disability test and who are considered "qualified."

This Policy Brief provides an overview of the decision and discusses major issues that must be addressed in implementing the *Olmstead* decision, emphasizing the implications for family caregivers. It examines cases filed with

the United States Department of Health and Human Services (HHS) Office for Civil Rights (OCR) to identify the key issues raised by these complaints. The article then turns to HHS efforts to assist states to comply with *Olmstead's* key holdings and describes the states' early efforts to implement the decision.

### BACKGROUND AND OVERVIEW

#### *The Americans with Disabilities Act (ADA)*

Enacted in 1990, the ADA (42 U.S.C. §12201 et seq.) represents a landmark advance in civil rights law. Building on earlier protections

under §504 of the Rehabilitation Act of 1973 (which applies to federally funded and conducted activities), the ADA extends anti-discrimination protections well beyond prior law, reaching private employment, publicly funded services and public accommodations, including services operated by private entities.

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***"The Olmstead decision reflects the enormous shift, embodied in the ADA, in how society views persons with disabilities as well as what Americans have come to expect in terms of the integration of persons with disabilities into the broader community."***

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The ADA has *no age limits*. Being considered a "qualified individual" under the ADA and thus protected by its prohibition against discrimination turns solely on whether a person has a disability within the meaning of the Act and is considered "qualified" within the meaning of the Act to receive its protections.

The ADA contains a series of titles, each of which establishes different protections.

- Title I applies to employers and employment-provided benefits.
- Title II applies to publicly operated and funded programs and entities.
- Title III applies to entities and services that are considered “public accommodations” under the law.
- Title IV applies to transportation.
- Title V contains a series of miscellaneous provisions, including certain protections for insurers, known as the insurance “safe harbor.” (In recent years there has been considerable litigation relating to insurance as an employment benefit and as a public accommodation; much of it also has raised the insurance safe harbor question [Rand Rosenblatt, Sylvia Law and Sara Rosenbaum, *Law and the American Health Care System* (Foundation Press, NY, NY, 1997; Rand Rosenblatt, Sara Rosenbaum and David Frankford, 2001-02 Supplement) (Ch. 2(F)).

Title II covers “services, programs and activities provided or made available by public entities.” These entities are defined as “state and local governments and departments, agencies, special purpose districts or other instrumentalities of state and local governments” (42 U.S.C. 12201).

The OCR within the Department of Justice has primary oversight responsibilities for the ADA. (28 U.S.C. § 35.104[a]). Within HHS, the OCR oversees the ADA in the context of health and human services programs. Thus, the policy guidance and directives involving *Olmstead’s* implementation will come from both OCR. In addition, the Center for Medicare and Medicaid Services (CMS, formerly known as the Health Care Financing

Administration or HCFA) plays a significant role in implementing the *Olmstead* decision because of the central role that Medicaid plays in financing community-based services for persons with disabilities.

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***“The heart of the Olmstead case involved the meaning of certain federal regulations implementing Title II of the ADA.”***

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The heart of the *Olmstead* case involved the meaning of certain federal regulations implementing Title II of the ADA. These address the meaning of non-discrimination in the context of publicly administered programs

and contain the following crucial elements:

- They prohibit discrimination against “qualified persons with disabilities” by public programs.
- They require that public entities “administer services, programs and activities in the most integrated setting appropriate to the needs of qualified individuals with disabilities.”
- They require public entities to make “reasonable modifications in policies, practices or procedures when the modifications are necessary to avoid discrimination on the basis of disability, unless the public entity can demonstrate that making the accommodation would *fundamentally alter* the nature of the service, program, or activity” (28 C.F.R. §35.130).

As the regulations indicate, in order to come within the protections of Title II, an individual must be a “qualified individual” with a “disability.” Under Title II, the term “disability” has the following meaning:

A physical or mental impairment that substantially limits one or more major life activities ... ; a record of such an impairment; or being regarded as having such an impairment.

The phrase to “substantially limit one or more major life activities” means functions such as:

Caring for oneself, performing manual tasks, walking, seeing, hearing, speaking, breathing, learning and working (id.)

The phrase “physical or mental impairment” means:

Any physiological disorder or condition, cosmetic disfigurement, or anatomical loss affecting one or more of the following body systems: Neurological, musculoskeletal, special sense organs, respiratory (including speech organs), cardiovascular, reproductive, digestive, genitourinary, hemic and lymphatic, skin and endocrine; any mental or psychological disorder such as mental retardation, organic brain syndrome, emotional or mental illness, and specific learning disabilities” (28 C.F.R. §35.104).

The phrase also includes such contagious and non-contagious diseases and conditions as orthopedic, visual, speech, and hearing impairments, cerebral palsy, epilepsy, muscular dystrophy, multiple sclerosis, cancer, heart disease, diabetes, mental retardation, emotional illness, specific learning disabilities, HIV disease (whether symptomatic or asymptomatic), tuberculosis, drug addiction and alcoholism” (Id.). Homosexuality and bisexuality are excluded from the term “physical or mental impairment” (Id.). In addition, the term “disability” does not include transvestism, transexualism, pedophilia, exhibitionism, voyeurism, gender identity disorders not resulting from physical impairments, or other sexual behavior disorders, compulsive gambling, kleptomania, pyromania, or psychoactive substance use disorders resulting from current illegal use of drugs (Id.).

While dementia and Alzheimer’s disease are not specifically listed impairments, as conditions that affect one or more major life activities they presumably would be considered to fall within the general categories of impairments listed above.

A “qualified” person with a disability is one who, with or without reasonable modifications of rules, policies, or practices, meets the “essential eligibility requirements for the receipt of services” (Id.). For purposes of discrimination claims involving health care and other services furnished under public programs, courts have held that beneficiaries are considered “qualified” when they meet program eligibility requirements (*Woolfolk v Duncan*, 872 Supp. 1381 [E.D. Pa 1995]). Thus for example, a Medicaid beneficiary would be considered “otherwise qualified” in a situation where the beneficiary alleges that he or she is being discriminated against in the state’s failure to provide covered services. (See, e.g., *Rodriguez v City of New York* 197 F. 3d 611 (1999); cert. den. 121 S. Ct.156 (2000), which held that an agency’s failure to cover personal patient safety monitoring as a separately covered service under the state plan but only as a procedure incidental to actual physical assistance did not constitute discrimination under Title II of the ADA.)

In 2001, the Supreme Court clarified the meaning of the phrase “fundamentally alter” a program or service. In *PGA Tours v Martin* the Court interpreted the term in an ADA Title III context (but in this respect, as well as others, Titles II and III are parallel) as meaning a proposed change that alters an “essential aspect” of the service or provides a person with a disability with a competitive advantage in participation in the activity that is not available to persons who are not disabled. (*P.G.A. Tour v Martin* 2001 Westlaw 567717). The *Martin* case concerned whether a public accommodation (a professional golf tournament) had to reasonably modify its rules

to permit play by a golfer with a disability that prevented extensive walking.

In sum, the ADA is a broadly conceived remedial law designed to reach all public programs (whether or not federally assisted), publicly operated facilities and private facilities that contract with public agencies. Title II requires public agencies to ensure that services are furnished in the most integrated setting appropriate to the needs of qualified individuals with disabilities. In addition, the law classifies as discriminatory the failure by public entities and public accommodations to

make reasonable modifications in existing programs and services when such modifications are necessary to afford services or accommodations to individuals with disabilities, unless the entity can demonstrate that making such modifications would

fundamentally alter the nature of the goods and services in question.

### ***The Olmstead Decision***

*Olmstead v L.C. by Zimring* (119 S. Ct. 2176 [1999]) concerned two women with various mental disabilities who resided in a state institution and were unable to secure adequate services to live in the community. In the case, the Supreme Court held that a state violates the ADA when it fails to make reasonable modifications in existing services for persons whom its own health professionals have determined to be capable of community residence. Treated in institutions, the plaintiffs remained institutionalized even after their conditions had stabilized and their own treating providers had concluded that their needs could be appropriately met in a community program. In holding for the

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***“The Court first held that unjustifiable institutionalization of persons with disabilities is a form of discrimination, because it compels them to receive their care in institutions, while persons without disabilities receive care in community settings.”***

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plaintiffs, the Court specifically found that despite the fact that HCFA had approved more than 2000 home and community care waiver slots, Georgia had used only 700 and had failed to modify its budget to cover additional community services listed under its state plan.

**The existence of discrimination.** The Court first held that unjustifiable institutionalization of persons with disabilities is a form of discrimination, because it compels them to receive their care in institutions, while persons without disabilities receive care in community settings. “Institutional placement of persons who can handle and benefit from community settings perpetuates unwarranted assumptions that persons so isolated are incapable or unworthy of participating in community life,” the Court ruled. “Confinement in an institution severely diminishes the every day life activities of individuals, including family relations, social contacts, work options, economic independence, educational advancement and cultural enrichment.... *Dissimilar treatment correspondingly exists in this key respect: In order to receive needed medical services, persons with mental disabilities must, because of those disabilities, relinquish participation in community life they could enjoy given reasonable accommodations, while persons without mental disabilities can receive the medical services they need without similar sacrifices (Olmstead at 2187, emphasis added).*

**The remedy.** Having found the existence of discrimination, the Court then set forth a framework for lower courts to use in fashioning remedies. The “state’s responsibility is not boundless” and the State must weigh the needs of persons who can receive appropriate care in the community against those who require institutional services. The Court also emphasized that “nothing in the ADA ... condones termination of institutional settings for persons unable to handle or benefit from community settings [nor] is there any federal requirement that community based treatment be imposed on

patients who do not require it” (id.). The Court then outlined the elements of a remedy:

- First, a state “generally” may “rely on the reasonable assessments of its own professionals” in determining if individuals are eligible to live in community placements.
- Second, to accommodate community placement, a state needs to make reasonable accommodations to --but not “fundamental alterations” in -- its services and programs. Furthermore, in deciding whether a change is reasonable or fundamental, a court must consider the interests of the entire group of persons with disabilities: individuals for whom community services are appropriate and those for whom institutional placement is appropriate.
- Third, the state has the burden of proof as to whether a proposed modification amounts to a fundamental alteration. In deciding the question, several factors are relevant: The cost of providing services to the individual in the most integrated setting appropriate; the resources available to the state; and how providing services affects the state’s ability to meet the needs of others with disabilities who need institutional care.
- Finally, a state must take affirmative steps to put the holding into action.

The heart of the Court’s decision is found in the following passage: “If ... the State were to demonstrate that it had a *comprehensive, effectively working plan* for placing qualified persons with mental disabilities in less restrictive settings, and a waiting list that moved *at a reasonable pace not controlled by the State’s endeavors to keep its institutions fully populated*, the reasonable modifications standard would be met ( Id. at 2188, emphasis added).

IMPLICATIONS OF OLMSTEAD FOR  
FAMILY CAREGIVERS

In essence, *Olmstead* requires that states plan for and undertake two basic reforms:

- The broad and complex task of restructuring existing programs and services in order to promote community integration.
- The establishment of an individualized assessment process to design community placements.

At the same time, the decision leaves many questions to be addressed. Undoubtedly federal, state and local government agencies, service providers, affected individuals, families, advocates and entire communities have many years of implementation work ahead.

### ***Restructuring Existing Programs for Community Integration***

Determining how *Olmstead* affects the daily lives of family caregivers is not easy. Sweeping decisions such as this one often take years to “filter through” the health and social service systems because of difficulties interpreting the full meaning of the decision and the complexities of modifying the ongoing operations of public programs to achieve consistency with the goal of maximum integration.

Family caregivers may find it useful to focus on two levels of public response:

- The broader process of state planning and program redesign.
- The use of the individualized assessment process to respond to individual needs and achieve the program and service modifications for integration and community residence.

Of particular concern to family caregivers may be:

- The ability of programs to pay families to provide support and assistance normally furnished by agencies and unrelated assistants.
- The extent to which Medicaid eligibility is restructured to permit eligibility in home and community residential settings.
- How the *Olmstead* decision specifically affects individuals with Alzheimer’s disease and other forms of dementia, which make community and home residential arrangements particularly complex to achieve.
- How *Olmstead* will assist aging parents caring for adult children with mental retardation and developmental disabilities.
- Whether, instead of aiding families, *Olmstead* creates the potential to force families to furnish inadequately supported in-home care in lieu of other forms of assistance.

Because the ADA applies to all individuals with disabilities without regard to age or

underlying condition, planning, assessment and service modification must be structured to address the needs of all individuals with disabilities, not just adults with retardation or physical disabilities. Using *Olmstead* to change public programs (such as allowing payment of family members for care otherwise furnished by unrelated individuals) will turn on whether such a shift constitutes a fundamental alteration or merely a reasonable modification. The Court's 2001 decision in *PGA v Martin* addressed the meaning of the term "fundamental alteration," but how that term will be applied in the case of public programs is unclear. A state might be expected to adopt a reasonable modification (for example, paying family members where such payments are lawful, the family member is found capable of carrying out the tasks and the service recipient in fact desires to receive care from a family member). Matters of high importance to family caregivers must be examined in light of the protections articulated in *Olmstead*, that is, discrimination exists when a public agency or program refuses to adopt reasonable modifications that would achieve integration more fully.

To understand how the distinction between fundamental alteration and reasonable modification becomes intensely factual, consider several issues of concern to families:

- **Medicaid eligibility.** To add new eligibility categories probably would constitute a fundamental alteration of a state plan. It would alter the basic design of the plan and apply to an entire class of eligible persons, not to specific individuals.
- **Medicaid coverage.** Previous decisions about Medicaid and the ADA suggest that a state can be ordered to expend additional funds to provide prompt coverage for both institutional and community services listed in its plan (*Olmstead* at 2188). But adding coverage where none existed appears to amount to a fundamental alteration although this standard (*Rodriguez v City of New York*) predates the *Martin* decision.

Whether requiring a state to add one or more classes of community services to a state Medicaid plan would be a reasonable modification or a change that alters an "essential aspect" or gives persons with disabilities a competitive advantage (in the quest for Medicaid resources) remains to be determined.

- **Medicaid service delivery.** Often what is needed is a change in the way in which existing covered services are delivered (for example, allowing non-licensed professionals to deliver personal care services where no special skills and qualifications are needed, altering fee schedules to encourage more participation by providers, allowing coverage for certain services in nontraditional settings, such as in-home therapies). In the context of service delivery, paying family members, if lawful under the statute, probably would be construed as a minor alteration in a state plan's operations, not a fundamental alteration.
- **Other public programs.** Housing, transportation, employment and social services also are critical to successful community residence. Is requiring a state to establish a new program component a fundamental alteration of an existing program? Examples include adding benefits for persons who need home modifications to a state's existing housing assistance and paying higher voucher rates so that housing benefits include an adaptation component. Is requiring a state to allocate more funds to certain services and away from other services a fundamental alteration? For example, could a state be ordered to downsize its institutions and allocate more long-term care resources toward other services?

### ***The Individual Assessment Process***

The Court was clear on the need for an individual assessment process: In deciding whether an individual can reside in a community, a state may rely on the

assessments of its own professionals. In *PGA Tours v Martin* the Court clarified further that deciding whether an alteration is a reasonable modification versus a fundamental alteration turns on the facts of each case. Nevertheless, many important aspects of the assessment process remain unaddressed, and no federal standards have been issued:

- **Access to the assessment process.** Who is eligible to seek an assessment? For example, only persons currently in institutions? Or persons at risk for inappropriate institutionalization as well? What procedures must states use to publicize the availability of the process and ensure access to it? Can the state use a passive process, i.e., await applications by individuals, or must it engage in “proactive” assessments, e.g., seeking out individuals who may require and want an assessment?
- **Waiting times and assessment timelines.** How long can individuals be made to wait for an assessment? How long can the assessment process take?
- **Conducting an assessment.** Who may conduct an assessment, and what professional qualifications must the individual have?
- **Elements of the assessment process and permissible assessment factors.** What must be covered—what factors are relevant and permissible in light of the ADA objectives—in an assessment? In assessing an individual, for example, can the state weigh the relative costs of community residence and institutional care (say, refuse community care if it costs more than 80% of anticipated institutional costs)? Can existing limits on services be considered, or must the process determine the feasibility of community residence with reasonable accommodations?
- **Appeals.** Must a written decision follow an assessment, with an opportunity for review? If so, who bears the burden of proof (the state or the individual)? Must the appeals process be capable of hearing new evidence and arguments for or against

community residence? Is the denial of a community placement as “inappropriate” subject to judicial review?

- **Implementation of assessment.** If community residence is determined to be appropriate, what is the slowest “reasonable pace” that a state can pursue?
- **Failure of the state assessment process.** At what point do flaws in a state’s own process mean the state may no longer “generally rely” on it? What substitute process then must be used?

### *Broader Planning Process*

The *Olmstead* decision emphasized the importance of an “effectively working” plan for overall implementation. While several states have submitted plans, these tentative documents have not yet been analyzed. Among key questions are how states shape and carry out their planning processes, identify issues to be addressed, develop implementation timetables and cost estimates, and begin the actual implementation schedule.

#### REVIEW OF ADMINISTRATIVE COMPLAINTS FILED WITH HHS/OCR

In 2000, the George Washington University School of Public Health, Center for Health Services Research and Policy, undertook a review and typology of more than 200 administrative complaints filed nationwide with OCR during, just before, and after the Supreme Court’s decision (Rosenbaum and Stewart, 2001). The purpose was to gain a better understanding of the issues and needs of the “*Olmstead* class” for broader planning. All complaints were read and their elements were captured anonymously using an instrument developed for capturing important information about each case. Conducted with the support of OCR and the Center for Health Care Strategies in Princeton, New Jersey, this review will be updated periodically as more complaints are filed and resolved. The analysis of complaints sheds important light on issues germane to broader planning and to



the design of the individual assessment process.

While the complaints cannot be considered representative of the children and adults who have disabilities under the ADA and who are at risk for unnecessary institutionalization, they shed valuable light on the nature of the problem. As of June 2001, approximately 275 complaints had been filed with OCR. From the 216 that had sufficient detail for analysis comes this picture:

- Complainants live in all regions of the U.S., with particular concentration in HHS Regions I through VI (73% or 158 complaints). (Boston is Region I; New York; II; Philadelphia, III; Atlanta, IV, Chicago, V, Dallas, VI; Kansas City, VII; Denver, VIII; San Francisco, IX; and Seattle, X). The issue of inappropriate institutionalization that initially gave rise to *Olmstead* in Georgia is widespread.
- Individuals were the most frequent complainants (43%), followed by advocacy groups (33%) and family members (16%).
- Of the complaints with enough information to draw conclusions, one quarter involved adults ages 22-50, 9% involved adults ages 51-64, 5% elderly persons and 14% children and adolescents.
- Two out of three complaints involved institutionalized persons, with the remainder involving community residents. Among institutionalized complainants, more than two-thirds resided in nursing or psychiatric facilities, with nursing facilities dominant, suggesting that the primary diagnosis was not usually mental illness. Among children, hospital and psychiatric facility residence were more common.

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***“...complainants are of all ages and from all regions of the country, have significant levels of both physical and mental disabilities and have a heavy need for housing and in-home services.”***

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- Among community complainants, half resided with their families, a third lived without a family and the remainder of living situations could not be ascertained.
- Physical disability was most dominant among adults; among children under 21, mental illness was more dominant. Numerous complainants (18%) reported at least two classes of disabilities (i.e., mental illness, mental

retardation/developmental disabilities, and physical disabilities). Housing and in-home care dominated the service requests (60% together). Inadequate current service levels accounted for 15 percent. Housing requests were more common for

children under 21 than for adults ages 21-64 (28% versus 16% of all requests) suggesting that significant numbers of children had been removed from their homes or had families who could not house them.

In sum, complainants are of all ages and from all regions of the country, have significant levels of both physical and mental disabilities and have a heavy need for housing and in-home services. Many are on the verge of institutionalization. Among the two-thirds who already were in institutions, adults mainly lived in nursing facilities, while children were in hospitals and psychiatric facilities. Planning for adults seems to require creating more community housing and supports for persons with physical disabilities, while planning for children may entail more community residential programs for children with mental disabilities.

FEDERAL PLANNING GUIDANCE  
AND STATE EFFORTS

### ***Federal Planning Guidance***

On January 14, 2001, OCR and HCFA issued joint guidance to assist states develop their broad based planning efforts

([www.ocr.gov/olmstead](http://www.ocr.gov/olmstead)). This guidance provides a framework for planning, covering:

- Comprehensive effectively working plans.
- Plan development and implementation process.
- Assessments on behalf of potentially eligible populations.
- Availability of community-integrated services.
- Informed choice.
- Implications for state and community infrastructure.

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***“Anecdotal evidence from advocates and state websites suggests that most states are moving ahead with planning, either through executive order or legislation, and that in general states’ planning efforts are broad based in their involvement of community stakeholders, public agencies and programs.”***

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### ***Presidential Executive Order and Followup Activities***

On June 18, 2001, President Bush issued Executive Order 13217 affirming the United States’ commitment to community-based

alternatives and programs that foster independence and participation in the community. The order reiterates the ADA’s integration mandate, the controlling nature of the *Olmstead* decision and the need for “swift implementation” of the decision by all federal agencies. Expressly identified were the Attorney General and four Departments: Health and Human Services, Housing and Urban Development, Education and Labor. Agencies have been directed to “evaluate the policies, programs, statutes and

regulations of their respective agencies to determine whether any should be revised or modified to improve the availability of community based services for qualified persons with disabilities.” Notice of the review process and invitations to comment appeared in the July 27, 2001 *Federal Register* as part of HHS’s new freedom initiative.

### ***Federal Funding and Technical Resources***

The federal government has been vigorous in encouraging active planning and efforts to stimulate additional community resources . (See State Medicaid Directors Letter, Jan. 10, 2001, [www.hcfa.gov/medicaid/smdl](http://www.hcfa.gov/medicaid/smdl) and [www.hcfa.gov/medicaid/realchoice](http://www.hcfa.gov/medicaid/realchoice).) Of specific interest are:

- The Real Choice Systems Change grants program. This program initially provided states with small “starter grants” and has been followed by a \$50 million grant program whose goal is to implement improvements in the provision of home and community services.
- The Nursing Home Transitions/Access Housing 2001 Grants, whose purpose is to

- assist individuals in making the transition from nursing homes to communities.
- Systems Improvement Technical Assistance Grants.
- Community Based Personal Assistance Grants.
- Medicaid Infrastructure Grants for Employment of People with a Disability.
- Demonstration to Maintain Independence.

HHS also has formed a Working Group for ADA/Olmstead to develop federal policy and to respond to policy questions. (Interested persons can contact ADA/Olmstead@HCFA.gov.)

### ***State Efforts***

Anecdotal evidence from advocates and state websites suggests that most states are moving ahead with planning, either through executive order or legislation, and that in general states' planning efforts are broad based in their involvement of community stakeholders, public agencies and programs. States seem to understand the nature of the reforms needed to realize change, as well as the range of individuals whose concerns and needs should be heard through the planning process. Whether the planning process reflects the full range of issues raised by the decision and highlighted by the federal guidance is unclear. Moreover, it is not known whether states have implemented the individual assessment process and if so, for which individuals.

The George Washington University School of Public Health and Health Services, in its research support to OCR and implementing states, has developed a research template to identify state plans that appear to capture the elements of the federal guidance. Information will be disseminated as it becomes available. Particularly valuable websites for tracking state implementation of *Olmstead* are:

- The David Bazelon Center's [www.bazelon.org](http://www.bazelon.org)
- The National Association of Protection and Advocacy Systems [www.protectionandadvocacy.com](http://www.protectionandadvocacy.com).
- The National Conference of State Legislators [www.ncsl.org](http://www.ncsl.org).

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***“The Olmstead decision represents a fundamental shift in the legal and social framework for measuring how public agencies spend public resources in serving persons with disabilities.”***

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In addition, a number of states have posted their state plans at their state websites. Finally, families may wish to consult with the OCR in their HHS region to determine where

their state stands with respect to planning and implementation of the decision and to identify contact persons.

### CONCLUSION

The *Olmstead* decision represents a fundamental shift in the legal and social framework for measuring how public agencies spend public resources in serving persons with disabilities. The case stands for the proposition that unnecessary institutionalization and failure to make reasonable modifications in public services to accommodate community residence constitute legal discrimination under the ADA.

The case calls for two levels of implementation. The first is broad planning to redesign existing programs and services to meet the needs of persons with disabilities. The second is an individualized assessment process. This assessment must consider the situation of qualified persons who need services in order to reside in the community and to avert unnecessary institutionalization. Complaints filed with HHS/OCR suggest that these persons span all ages and types of disabilities and are in particularly great need of in-home medical, health and support services as well as housing. Broad planning

efforts appear to be well under way, but less is known about states' progress in establishing and structuring their individualized assessment programs.

Family caregivers need to be involved in both dimensions of change. In virtually every state there are active *Olmstead* planning efforts in which families can become involved. Organizations that may be able to provide information about planning efforts include state protection and advocacy (P and A) agencies; state chapters of such organizations as Family Voices, AARP and other consumer organizations; and the state Governor's Office.

The individualized assessment process is the dimension that raises more immediate concerns. An individualized assessment process may be housed in a single comprehensive service agency. Or it may be scattered across agencies, e.g., the state Medicaid agency (for persons residing in Medicaid facilities), the mental health agency (for residents of mental illness institutions), the Medicaid program (for persons who need home care), the public housing agency (for persons who need public housing). Who is in charge of designing and overseeing the process is unclear, although presumably this flows from the broader planning process. It is also unclear what happens if states fail to establish these processes or limit them to certain classes of individuals or residential settings.

While much is not yet known about the scope or timeline for *Olmstead* implementation, it is known that the decision has had a profound impact on how public policymakers understand the ADA and its protections for persons with disabilities. It is equally clear that while the process may take a long time, the decision will permanently alter the care landscape for persons with disabilities because it is grounded in the ADA, a sweeping law. Finally, family involvement in the implementation of *Olmstead* is central to

creating community services for persons with disabilities.

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Support for this Policy Brief was provided by a grant from the **Robert Wood Johnson Foundation**.

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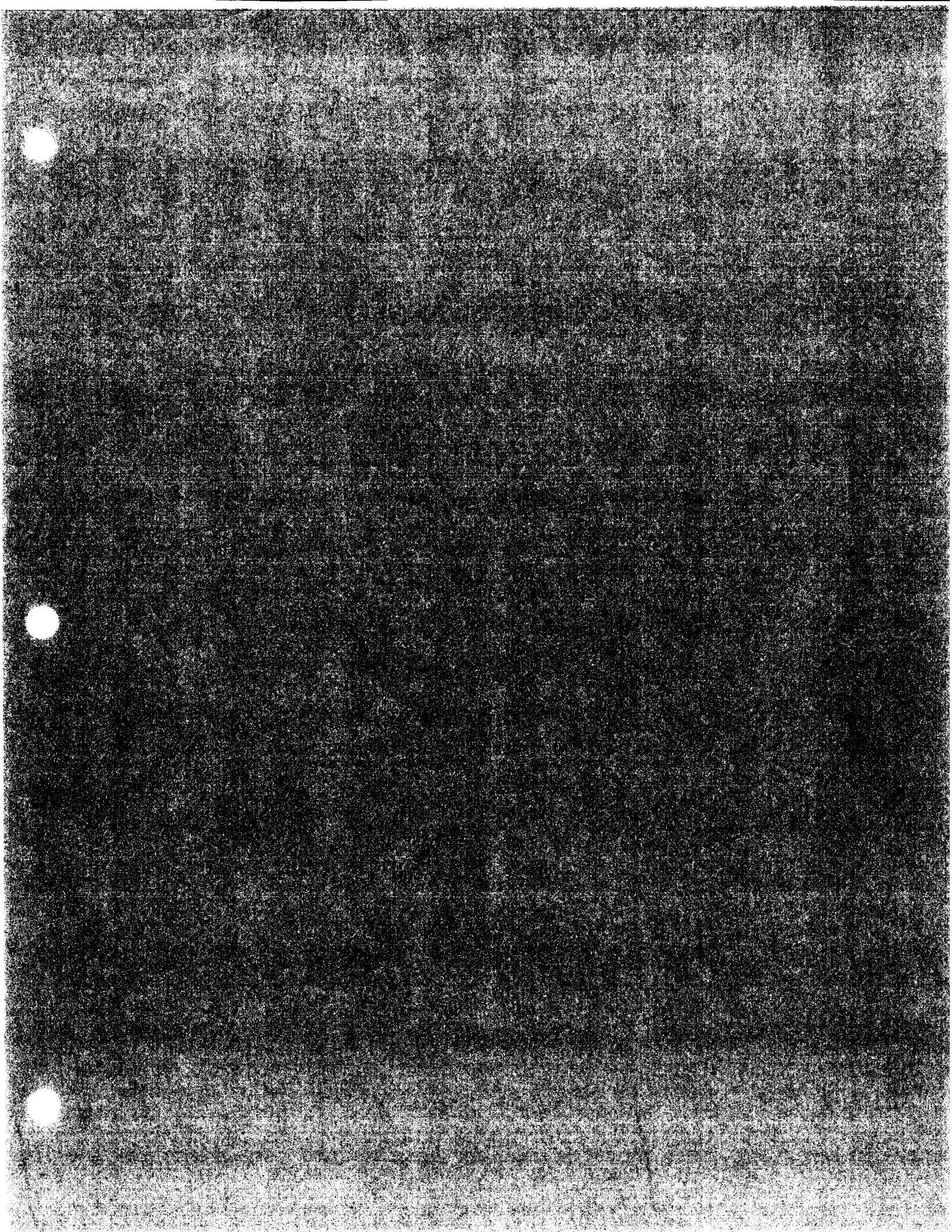
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### Respite care for caregivers and people with severe mental illness: literature review

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**Keywords:** respite care; mental health nursing; systematic reviews and meta-analyses; nursing; carers

**Aim.** The aim of this study was to review research literature over the past 10 years on respite care for people affected by severe mental illness; and identify key implications for nursing practice in provision of respite care for family caregivers of people with severe mental illness.

**Background.** Family caregivers play an important role in health care, but need regular breaks to maintain their own health and well-being. Respite care is one of the few services available with a primary focus on supporting family caregivers. In most developed countries the notion of respite care as an extension of the health care service has been embraced, evidenced by a growing body of literature in health and health-related disciplines.

**Methods.** An initial literature search was undertaken using the key words 'respite', 'short-term care', 'shared care' and 'day care' in major electronic databases for nursing, psychiatry, psychology and sociology literature between 1967 and 2002, identifying 704 articles. Closer examination of the literature from 1993 to 2002 on gaps and trends in respite care for people affected by severe mental illness was conducted. This is discussed in the context of the broader literature, particularly on dementia, where the mainstream research on respite care is found.

**Results.** The majority of family caregiving studies identified a need for greater quality, quantity, variety and flexibility in respite provision, and the literature has remained largely silent in relation to those affected by severe mental illness. There are contradictory findings on outcomes of respite care services and a lack of controlled empirical studies and evaluative research on effectiveness.

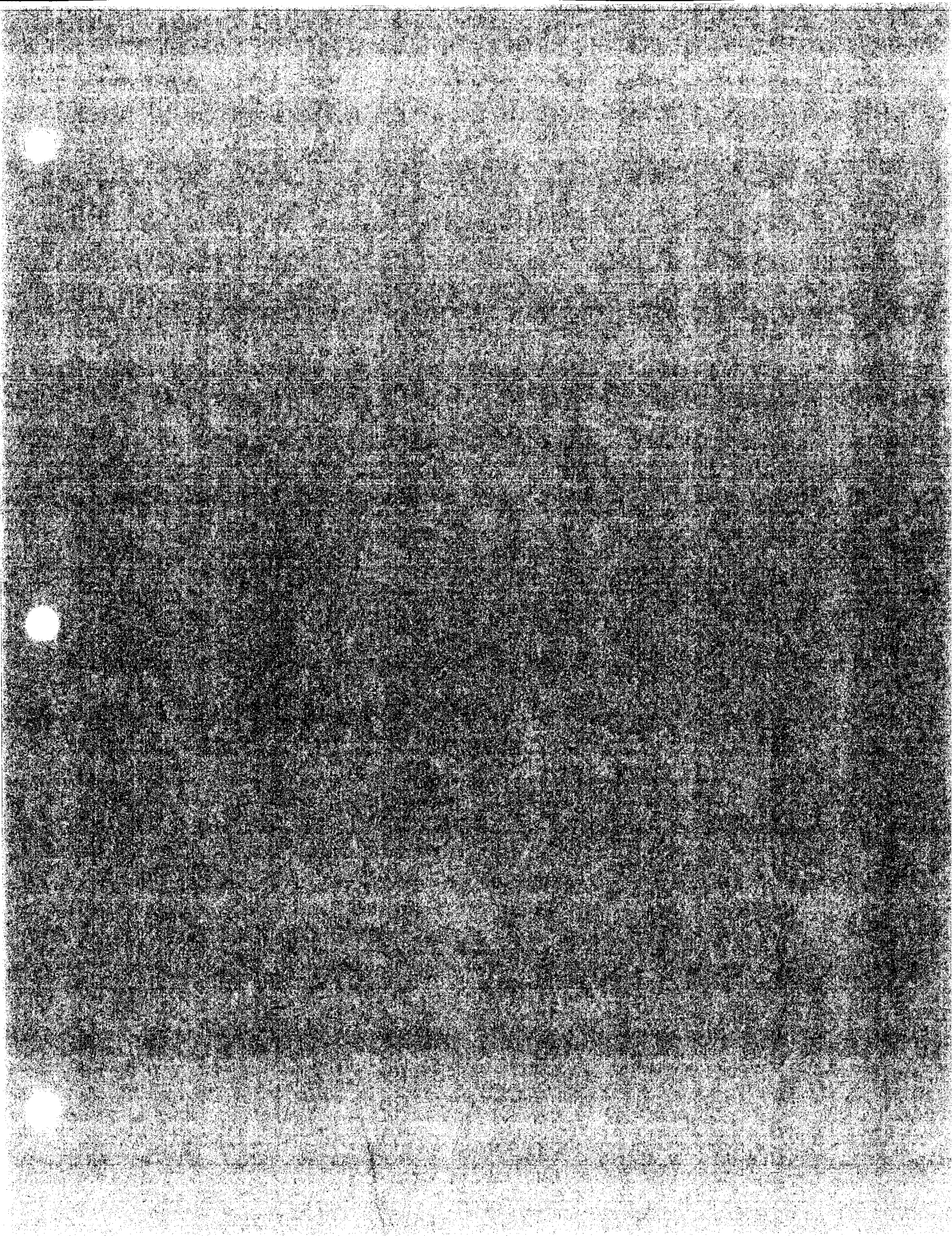
**Conclusions.** Respite care is beneficial for caregivers, there is significant unmet need in provision of services for the mentally ill, and greater flexibility and the needs of caregivers should be recognised and addressed.

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**Issue Brief**

**Respite Care**

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**January 2004**

**Prepared for:  
The Missouri Foundation for Health  
Program and Grants Committee  
and Project Review Committee**

**Prepared by:  
M. Ryan Barker, Policy Analyst  
MFH Policy Group**

# **Issue Brief: Respite Care**

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## **Introduction**

Proposals submitted to the Missouri Foundation for Health (MFH) have requested funding for respite care services either as an auxiliary component of the application or as a complete program. At the October 7, 2003 peer review staff meeting, a discussion arose concerning the need for, and benefits of, respite care services in Missouri. At the request of the MFH Program Group, the MFH Policy Group has produced this issue brief on respite care to broaden the knowledge base of both the MFH staff and the Program and Grants and Project Review Committees (PGC/PRC).

The MFH Policy Group has examined the subject and offers this document which includes:

- Definitions, background information and statistics relating to respite care
- Key elements for successful programming and
- Examples of model programs.

## **Overview**

Respite care can be defined as a service that “provides temporary relief for caregivers from the ongoing responsibility of caring for an individual of any age with special needs, or who may be at risk of abuse or neglect.”<sup>1</sup> Those who receive respite services include: children with cerebral palsy or muscular dystrophy, adults with brain injuries, individuals suffering from Parkinson’s or Alzheimer’s disease and persons afflicted with AIDS. Caregiver respite has two primary purposes: 1) to decrease caregiver stress and 2) to delay or eliminate the need for the institutionalization of, or foster care services for, the person receiving care. The core principles connected with this type of assistance include support and preservation of caregiving or family relationships.<sup>2</sup>

Respite services can typically be split into one of two categories: 1) short-term or regularly planned episodes that permit caregivers to perform routine errands and/or take time out from caregiving or 2) infrequent or longer periods of time that give caregivers the opportunity to go on vacation or attend to a family crisis.<sup>3</sup> Additionally, the setting for a respite care program can vary from a family's home to a residential facility to a senior day center to a children's crisis nursery.

**The term informal or family caregiver refers to any unpaid individual that provides care including:**

- **Parents**
- **Neighbors**
- **Grandparents**
- **Friends**
- **Spouses/Partners**
- **Siblings**

### **Informal Caregiver Statistics**

A survey conducted by the National Family Caregivers Association in 2000 showed that 26.6% of the adult population had cared for a chronically ill, disabled or aged individual.<sup>4</sup> This means that more than 50 million people a year act as informal caregivers to a family member or friend. Of these individuals, parents represent the largest group (38%), followed by non-related persons (24%), then other relatives (20%), spouses (11%) and children (7%).<sup>5</sup>

While many caretakers report a dedication to attending to a loved one, they also experience financial, emotional and physical health problems as a result of caregiving. A recent study found that in comparison to the general population 27% of caregivers reported having more headaches, 24% described stomach disorders, 41% expressed additional back pain, 51% more sleeplessness and 61% reported depressive symptoms.<sup>6</sup> High levels of depression among caregivers stand as a significant concern because depression has been cited as a key risk factor for chronic conditions such as coronary heart disease, cancer and diabetes.<sup>7</sup> The effect of these health concerns is evident in that elderly caregivers who report stress due to caregiving have a 63% higher mortality rate than their non-caregiving peers.<sup>8</sup>

The hours spent as a caregiver combined with the physical and mental health effects of caregiving results in a huge financial burden for these individuals. Nearly two-thirds of caretakers participate in the workforce. Estimates reveal that U.S. businesses lose

**“If institutionalization of individuals with Alzheimer’s disease could be delayed even one month, it would mean a savings of \$1.2 billion annually.”<sup>11</sup>**

between \$11 billion and \$29 billion per year because of caregiving responsibilities and increased caregiver health concerns.<sup>9</sup> Additionally, the stress, burnout and depression associated with caregiving results in earlier institutionalization for many care recipients. Research has clearly shown that home care costs significantly less than care in long-term care facilities (i.e. nursing homes, residential care, etc.).<sup>10</sup>

### **Benefits of Respite Care Services**

Respite care alone can not effectively address all of the needs of caregivers. As discussed above, considerable diversity exists among the population receiving care, as well as among the caregivers themselves. No single type of program can adequately fit the various caregiving situations. However, respite care does offer an array of benefits for both the caregiver and the care recipient. When surveyed, caregivers name respite as their highest priority need among auxiliary services.<sup>12</sup>

In general, studies show that respite care benefits the caregiver by decreasing emotional and physical stress, by increasing quality of life and by postponing the costly and painful decision to utilize a long term care facility.<sup>13</sup>

Respite services also benefit care recipients by:

- preventing abuse or neglect,
- delaying or averting institutionalization (the vast majority of care recipients prefer to remain in their home) and
- providing opportunities to build new relationships and feel a sense of independence.<sup>14</sup>

Furthermore, avoiding early institutionalization saves taxpayers money (i.e. 58% of nursing home costs are picked up by the publicly funded programs of Medicare and Medicaid).<sup>15</sup> Respite care not only saves money, but it provides a break for caregivers to tend to their own needs and come back healthy and reenergized.

**A 1999 study estimated that the national economic worth of informal caregiving for ill or disabled adults was \$196 billion in 1997. This figure would currently exceed \$200 billion.<sup>16</sup>**

## **Philosophical Debate on Respite Services**

The issue of respite services covers an extremely diverse target population, and includes an assortment of agencies that provides care to these clients. Therefore, debate exists on how these services should be structured on a systemic level. Current legislation under consideration at the federal level, the Lifespan Respite Care Act, would create “coordinated systems of accessible, community-based respite care services for all caregivers of individuals regardless of the individual’s age, race, ethnicity or special need.”<sup>17</sup> This type of system has been enacted in several states, one of which will be detailed later in this paper.

Having coordinated respite care services for all populations creates a seamless structure that prevents individual groups from falling through the cracks of a fractured system. However, respite care is only one of many auxiliary services that works to support informal or family caregivers. Some believe that instead of building a system of comprehensive respite care, that the construction of a system of ancillary services (e.g. transportation, case management, respite, meal delivery, etc.) focused on a specific target population would be more reasonable. This type of coordinated system would link all of the needs for that target population and offer a less complicated transition between home-care and placement in a long-term care setting. To date, Missouri has not coordinated its respite services into a broad system of care.

## **Key Components for Effective Programming**

Although Missouri has not developed a comprehensive structure for respite care services, the inclusion of certain elements in existing programs could contribute to future coordination efforts. The following describes essential elements of a successful respite care program.

### **1) Family-Centered Framework**

Respite care allows informal caregivers a “mental” break from the stress and responsibilities of caregiving. Research shows that physical separation from a care recipient does not automatically equate to respite if a caregiver continues to worry about the level of care received by their loved one.<sup>18</sup> Providers of respite should proactively

involve the caregiver and care recipient in as many aspects of the respite process as possible. Often formal (professional) caregivers feel that they know the needs of the client better than the family caregiver. However, the respite provider should not only respect, but utilize the intimate and in-depth knowledge that the care recipient and informal caregiver bring to the given situation.<sup>19</sup>

## **2) Flexibility and Accessibility**

A recent literature review found that the top concerns of in-home respite care users revolved around scheduling complications (e.g. too few hours, not enough providers or inconvenient hours of service).<sup>20</sup> This concern illustrates the need for respite care programs to respond to caregiver needs in terms of scheduling and hours of assistance. Most of the time families who access respite care can plan ahead for when they will require services. However, respite care must be easily accessible for an informal caregiver during a crisis situation. If a family can not access services at these vital times the consequences could include abuse, neglect or early institutionalization of the care receiver, and increased caregiver illness, stress or lost wages.<sup>21</sup>

## **3) Broad Array of Respite Options**

An essential component of a respite program involves offering a wide range of options in order to support the diverse needs of the target population. Respite projects should ideally include choices for care both in the home (i.e.: home health aides, volunteer companions, nurses, etc.) and out of the home (i.e.: nursing facilities, social or medical day services, residential homes, etc). Although it may be difficult for a smaller agency to provide both types of services, organizations within a community can collaborate to create an array of easily accessible options for informal caregivers.<sup>22</sup>

### **Studying Respite Care**

A 2002 study of HIV-positive individuals found that a client engaged in ancillary services such as respite care is more likely to be engaged in, and continue to receive, primary care services.<sup>23</sup>

#### **4) Cultural Competence**

In the last ten years participants in the U.S. health care system have become acutely aware of the need for culturally competent services. Currently, “over 300 different languages are spoken in the U.S., and nearly 47 million people (almost 18 percent of the nation’s population) speak a language other than English at home.”<sup>24</sup> The health consequences of language and cultural barriers include: decreased health access, poor patient understanding, low client satisfaction, diminished quality of care and increased health costs.<sup>25</sup> Respite care providers must train workers (whether paid or volunteer) in order to offer culturally appropriate services to all members of the target population in their community.<sup>26</sup>

#### **5) Outreach/Consumer Awareness**

A respite care program should contain a strategy for conducting outreach to its target population to increase awareness of community services. In many instances, individuals most in need of respite care may be unaware of the existence of local programs. Respite services delay the institutionalization of care recipients more effectively if a caregiver accesses this type of assistance at an earlier stage of disease or disability. Additionally, consumers must have prior knowledge of available respite services in order to effectively utilize them during a crisis situation.<sup>27</sup>

#### **Outreach Strategy**

Example components of consumer awareness:

- Community Presentations
- Health Fairs
- Radio Spots
- Websites
- Brochures/Posters
- Hotlines
- Newspaper Ads

#### **6) Training and Support for Caregivers**

Organizations can enhance the respite care experience by offering workshops and instruction to informal caregivers to increase their caregiving skills or update their knowledge of specific diseases or disabilities.<sup>28</sup> Furthermore, linking respite services with counseling is very valuable because caregivers often experience stress or guilt when placing a loved one in another’s care. This strain on the relationship between caregiver and care recipient can actually counteract the positive benefits of respite care. Support services such as counseling can not only reduce the anxiety and tension associated with utilizing respite, but can also assure positive outcomes for both the caregiver and care receiver.<sup>29</sup>

## 7) Eligibility for Middle and Low-Income Families

Many of the funding streams for respite programs revolve around income eligibility requirements. While vitally important to serve those with low incomes, many middle income families may not qualify for assistance, yet can not afford to pay for respite care out of pocket (i.e. if they are uninsured or if their private insurance does not cover the service). Assuring access to respite services for middle income families through the use of options such as sliding fee scales creates an equitable system of care.<sup>30</sup>

## 8) Quality Improvement and Evaluation

Agencies that provide respite care services should build mechanisms into the program that work to enhance the quality of care. A systematic evaluation plan will not only measure program objectives and supply outcomes, but will also account for feedback from the actual consumers. Involving clients in the organization's efforts to improve services supports a family-centered framework and drives progress within the program.<sup>31</sup>

### **Incorporating Feedback**

Possible ways to obtain consumer input:

- Surveys
- Focus Groups
- One-on-One Interviews
- Planning Teams
- Client Representation on Board or Committees

## **Respite Care Programs**

As mentioned earlier, a diverse group of individuals comprises the target population for respite care services. Many programs that provide respite serve a particular subgroup such as older adults or children at risk of abuse or neglect. Although a comprehensive system that ties together agencies and resources that provide respite would be ideal, the individual agencies serving a specified population can still work to incorporate many of the eight essential elements discussed above.

The following examples illustrate both a comprehensive state program that links respite services within a community and two model programs that serve specific target populations. Although differing in their approaches, all three represent cases that combine many of the crucial components that result in effective programming. At the end of each example, a bulleted list ties the program back to the eight essential components for effective programming.



## **Oregon Lifespan Respite Program**

In 1997 Oregon became the first state to create a Lifespan Respite Care Program, which now exists in three other states. This approach has been introduced on the federal level as the Respite Care Act of 2003. Traditionally, respite care in Oregon and throughout the nation has consisted of unaffiliated agencies that serve targeted populations, each with their own eligibility criteria. Often families find these decentralized services difficult to navigate.<sup>32</sup>

The Oregon Lifespan Respite System establishes “access networks that serve all families and individuals regardless of age, income, race, ethnicity, special need or situation.”<sup>33</sup> These local networks serve as a central point of coordination for individuals seeking respite care resources and information. The community-based networks:

- “Maintain a database of trained in-home providers, volunteers and facilities that provide respite services;
- Help connect families to services and payment options;
- Give information on provider’s skill levels and backgrounds
- Provide referrals and related services and
- Identify gaps (for certain populations) in services available in communities.”<sup>34</sup>

To create consumer control, leadership councils comprised of at least 51 percent caregivers run each local network. The partners of the community networks include caregivers, providers, federal and state government agencies, faith-based and non-profit organizations and Native American tribes, as well as others. These community level systems each received start-up funds in the amount of \$15,000 from the state. In the period 2001-2003 the state has budgeted \$30,000 to \$50,000 per group for biannual ongoing operating costs. Funds from the Oregon state government also go towards technical assistance and resource coordination. Many of the networks also supplement funding through donations, agency contracts and solicitation of grants.<sup>35</sup>

A 2001 survey listed the Oregon Lifespan Respite Program as one of the top five model respite care programs in the nation.<sup>36</sup> This comprehensive system meets all of the key factors that lead to a successful respite care program.

- The establishment of a **family-centered framework** stemming from consumer controlled leadership councils and a comprehensive, easily navigated, system of care.
- The construction of a local network for caregivers to contact, regardless of their need, offers both **flexibility and accessibility** of services.
- The development of a community-based respite care database means a **broad array of respite options** for caregivers to access.
- Oregon requires that network providers “be sensitive to the unique needs, strengths and multicultural values (**cultural competence**) of an individual, family or caregiver.”<sup>37</sup>
- The Lifespan program provides **outreach/consumer awareness** (listed as a guiding principle) through such things as media articles and community presentations.
- Another guiding principle calls for the network to coordinate community respite and health related workshops in order to **train and support caregivers**.
- Lifespan offers respite services to individuals **regardless of income**.
- Key **evaluation** outcomes drive the Oregon program, including working to **improve the quality** of services through gathering and compiling data and collecting customer satisfaction surveys.<sup>38</sup>

The Oregon Lifespan Respite Program presents an example of a model system of coordinated and comprehensive respite services. The structure builds upon existing community resources and provider organizations. Furthermore, the locally based networks decrease the fragmentation of services while also working to fill identified gaps.

## Respite Care—Older Volunteer Service Bank

The Older Volunteer Service Bank (OVSB) administered out of the Missouri Department of Health and Senior Services (DHSS) provides in-home respite through the use of volunteers. These volunteers benefit not only from filling an important role in the community, but also by earning “credit” for each hour served. These “credits” can later be accessed for respite services by the volunteer, their families or a designated individual.<sup>39</sup>

DHSS locates community agencies willing to locally sponsor the OVSB program. These agencies recruit, train and assign volunteers to informal caregivers that request respite services. Volunteers can provide up to six consecutive hours of respite for the caregivers of dependent older or disabled adults. The staff of DHSS’s Division of Senior Services maintains a computerized registry that tracks the hours of respite provided and used by each volunteer.<sup>41</sup>

### Examples of Local Sponsoring Agencies for the OVSB Program<sup>40</sup>

- Hospice Programs
- Senior Centers
- Area Agencies on Aging
- Home Health Providers
- Hospital Auxiliaries
- Churches & Civic Groups

Current literature on the topic of respite care refers to the Missouri OVSB as an innovative model program.<sup>42</sup> However, as revealed by National Public Radio’s (NPR) “This American Life” low levels of funding for the OVSB has resulted in inefficient programming. Nonetheless, the OVSB model meets at least five of the eight key components to a successful program.

- The program offers a certain amount of **flexibility and accessibility** in scheduling respite services by using mostly retired or non-working volunteers.
- The OVSB program, in conjunction with other DHSS and local sponsoring agency services, offers the target population a **broad array of respite options**.
- The community organizations train the OVSB volunteers in order to have **culturally competent** services for the populations served.
- DHSS conducts **outreach/consumer awareness** through the use of their website, a hotline, brochures, posters and the local sponsoring agencies.
- Finally, eligibility for the OVSB program does not have an earnings requirement which makes respite services available to all families **regardless of income**.<sup>43</sup>

This innovative program clearly demonstrates many of the components that produce effective respite services for this specific population.

## **Saint Louis Crisis Nursery**

The St. Louis Crisis Nursery, a MFH grantee funded in January 2003, provides respite services to families experiencing overwhelming stress in order to prevent child abuse and neglect. The agency also offers immediate shelter and safety for children escaping an abusive environment. The population served by the crisis nursery includes: minority clients (77%), low-income families (87%), single parent households (88%) and families that have a child with a disability (15%). The program provides 24-hour care for children, a medical exam by a physician, medication, a developmental assessment and access to a helpline for families in crisis.<sup>44</sup>

The St. Louis Crisis Nursery presents a highly regarded example of a program that prevents child abuse and neglect and also meets many of the key components for effective respite services, including:

- The Crisis Nursery has a reliable reputation with the community it serves. This **family-centered framework** decreases the caregiver stress and anxiety that comes from being physically separated from their children.
- Offering 24-hour, 365 days a year of service, and a crisis hotline, the agency provides **flexibility and accessibility** in respite care.
- The organization has many credentialed staff, and all staff receive initial, as well as on-going, training that assists in providing **culturally competent** services.
- The St. Louis Crisis Nursery promotes **outreach/consumer awareness** of their services through radio and television interviews, press releases, a hotline, community presentations, flyers, conferences, workshops and an agency newsletter.
- The agency **supports caregivers** through family counseling, the crisis hotline and referral services.
- The organization serves all families **regardless of income**.
- Through the use of client surveys and follow-up interviews with the families, the Crisis Nursery can **evaluate** the program and **improve the quality** of services.<sup>45</sup>

The St. Louis Crisis Nursery effectively incorporates the essential components that produce a successful and beneficial respite care program for their targeted population.

## **Conclusion**

Respite care benefits a diverse population of both caregivers and care recipients. This valuable tool reduces the early institutionalization of care recipients, and also decreases the stress and anxiety associated with caregiving. Respite programs promote both the physical and mental health of family caregivers. Additionally, informal caregiving saves billions of dollars each year nationally by decreasing institutionalization and placement in foster care services. While a coordinated and inclusive system of respite may be ideal, individual organizations or collaborating agencies can work to develop the efficacy of their own activities through meeting the preceding key elements to successful programming. Respite services can both maintain and improve the health of many of Missouri's informal caregivers and care recipients.

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Arizona Foundation for Behavioral Health

Alexis  
Sissons

## Comments on AHCCS 1115 Waiver Renewal

The following concerns are being raised in plans to “freeze” enrollment for childless adults and for parents with incomes between 75 & 100% FPL. We also have included comments on the transportation and EPSDT restrictions.

- 1) These populations are protected by the voter approved initiative in 2000 that is known as Prop 204. This initiative allowed expansion of the AHCCCS population to Arizona residents with incomes below 100% FPL. The ability to change any initiative is limited by another voter approved initiative passed in 1998 known as Prop 105. Prop 105 limits the Legislature’s ability to alter voter approved measures unless the action furthers the cause of the initiative. The plan that we have before us today is simply fails to further the purpose of Prop 204. What we have before us does harm to the neediest in our community and individuals without resources to secure needed medical care. This “freeze” is contrary to the voters’ wishes. We do not support this plan.
- 2) How quickly does AHCCCS expect to hear from CMS on freezing these populations? How will participants, providers and the community respond if there is no approval by June 1<sup>st</sup>? How will AHCCCS notify individuals of this lack of action by CMS? Sadly, there is already fear and anxiety among recipients.
- 3) In the AHCCCS implementation document dated April 11<sup>th</sup>, it notes that individuals who have submitted applications before July 1<sup>st</sup> will have applications processed and, if eligible, individuals will indeed be enrolled **even if** processing is not completed before July 1<sup>st</sup>. How will initial applicants or individuals who are simply renewing be informed of their status? How will providers know how to proceed if an individual appears for care in the “window” between application/renewal submitted before July 1<sup>st</sup> and notification of enrollment in AHCCCS? What happens if the application is submitted before July 1<sup>st</sup> and the applicant is placed in the program in a “pending” status and ultimately not eligible? Who is then responsible for any medical cost incurred during that window?
- 4) Will AHCCCS send out notices informing the “remaining” populations that will **not** be impacted? Some recipients know only that they are enrolled in AHCCCS, but not the eligibility code or rate. Some individuals will know they’re not impacted because of being a child, a pregnant woman, and a SSI recipient or in the ALTCS program. AHCCCS should develop an identification card that clearly shows the recipient’s eligibility re-determination date and which eligibility code is applicable for his/her enrollment in AHCCCS.
- 5) The childless adults who are enrolled in Medicare will be converted into the SSI MAO category. Though this population will not be impacted by the enrollment freeze, AHCCCS must inform this subset of childless adults of their redetermination date. Will they need to have their eligibility re-determined on a 6 or 12 month basis?

- 6) Notice 4 is targeted to childless adults who also have HIV/AIDS who fail to comply with the re-determination process. As outlined, this group of individuals will be transferred to the SSI MAO office for redetermination. This Notice fails to inform the recipient whether they will need to be re-determined every 6 or 12 months. If there is a gap in coverage, will the eligibility determination for childless adults with HIV/AIDS eligibility be handled by the SSI MAO office without any risk of the individuals being subject to the freeze?
- 7) Notice 5 is targeted at childless adults who are SMIs that will be transferred to the SSI MAO office effective October 1<sup>st</sup>. Will this population receive their same level of benefits between July 1<sup>st</sup> and October 1<sup>st</sup>? This notice fails to inform the recipient of their re-determination period.
- 8) Notice 6 is targeted to childless adults that are not eligible for any of the categories identified above. If individuals in this subgroup renew their application by the date identified in the notice and demonstrate that they are indeed at or below 100% FPL, will they continue to be enrolled in AHCCCS and **not** subject to the freeze?
- 9) The section on Ex Parte Determinations fails to clarify the impact on these sub-populations groups once they are assigned to the SSI MAO unit and fail, after July 1<sup>st</sup>, to qualify for AHCCCS under the SSI MAO category. What happens to a SMI recipient, for example, who was initially reclassified as an SSI MAO and who at re-determination fails to meet the disability standard? Will this individual be re-assigned to the AHCCCS Care eligibility category and then required to undergo renewals every 6 months? Or, would such a situation result in the individual being instead frozen out of eligibility entirely?
- 10) Each Case Scenarios involves individuals with monthly income of only \$400. Is the single adult income of \$908 still the considered 100% of FPL and individuals allowed to earn up to that level?
- 11) As outlined in the March 31<sup>st</sup> revised waiver, AHCCCS plans to remove the EPSDT service mandate of Medicaid for young adults age 19 and 20. This move is contrary to federal law and undermines programs such as YATI (Young Adult Transitional Insurance program that serves aging out foster children) and specific programs underway at DHS targeted youth. What plans have been prepared to do special outreach and education to this population sub-group?
- 12) Finally, the plans to eliminate non-ER transportation for non-disabled adults in Maricopa or Pima counties fails to recognize previously rejections on this issue by CMS, but more importantly it fails to recognize access barriers even urban recipients encounter. Will there be processes in place to assist our urban recipients when free or low cost transportation is simply not available? In your assessment at the one-year mark will you examine how many individuals have been assessed missed appointment fees?

Submitted by: Arizona Foundation for Behavioral Health, Arizona Behavioral Health Corporation, & Maricopa Consumers, Advocates & Providers, Inc. (MCAP)