

FDNY members and trades personnel work at Ground Zero.



MENTAL HEALTH ASSESSMENT

For more than 25 years, the FDNY Counseling Service Unit (FDNY-CSU) has been meeting the needs of the FDNY community. Prior to 9/11/01, it provided counseling for family issues, personal stress or when an FDNY member died. In response to the World Trade Center attacks and the tragic loss of 343 members of our FDNY family from more than 60 firehouses and 2 EMS stations, we quickly adapted and expanded our programs, trained personnel, visited every firehouse and EMS station and added counseling sites to provide emergent and extensive mental health services to members and their families, including the families of deceased rescue workers. The FDNY-CSU played a principal role in the evaluation, treatment and monitoring of the psychological response to the 9/11 attacks. Because our CSU had significant experience and understanding of our members, programs were developed to meet specific needs. Now, in the sixth year after this tragedy, our dedicated staff continues its mission of caring for the mental health of our members (both active and retired) and their families.

In addition, mental health questionnaires from the FDNY WTC Program helped to further identify mental health concerns and trends. One of the goals of these questionnaires was to identify the scope and severity of the psychological and physical damage resulting from the WTC terrorist attacks in an effort to provide focused interventions/treatments and monitor response rates. The information collected is used not only to improve the quality of care provided by the FDNY-CSU and FDNY-BHS, but also to

increase our general understanding of mental health responses after major disasters. This is a critical issue for our members as they are always among the first to respond to such disasters.

Our initial questionnaire asked FDNY rescue workers about arrival time at the WTC and total time spent at WTC sites in the months that followed. The mental health portion asked about emotional well-being through questions aimed at identifying symptoms and behavioral patterns related to stress, anxiety and depression. It examined changes in the ability to function, both in their personal and work lives, which may have occurred due to psychological problems resulting from 9/11, such as anger, irritability and anxiety; memory and concentration problems; changes in eating, sleeping and exercise patterns; and increases in alcohol and tobacco usage. As we had not rigorously collected mental health information pre-9/11, we present these self-reported data without comparison.

The mental health questionnaire also collected data on the number of people utilizing our counseling services and the types of counseling used. It should be noted that the members taking their medicals and responding to these questionnaires were, for the most part, on full-duty, working in the field, but also included our light-duty members and affected retirees.

Our findings after 9/11 show the persistent emotional impact left by this tragedy, with the greatest effects realized in FDNY rescue workers who either were at the WTC site during the collapse or lost loved ones on 9/11.

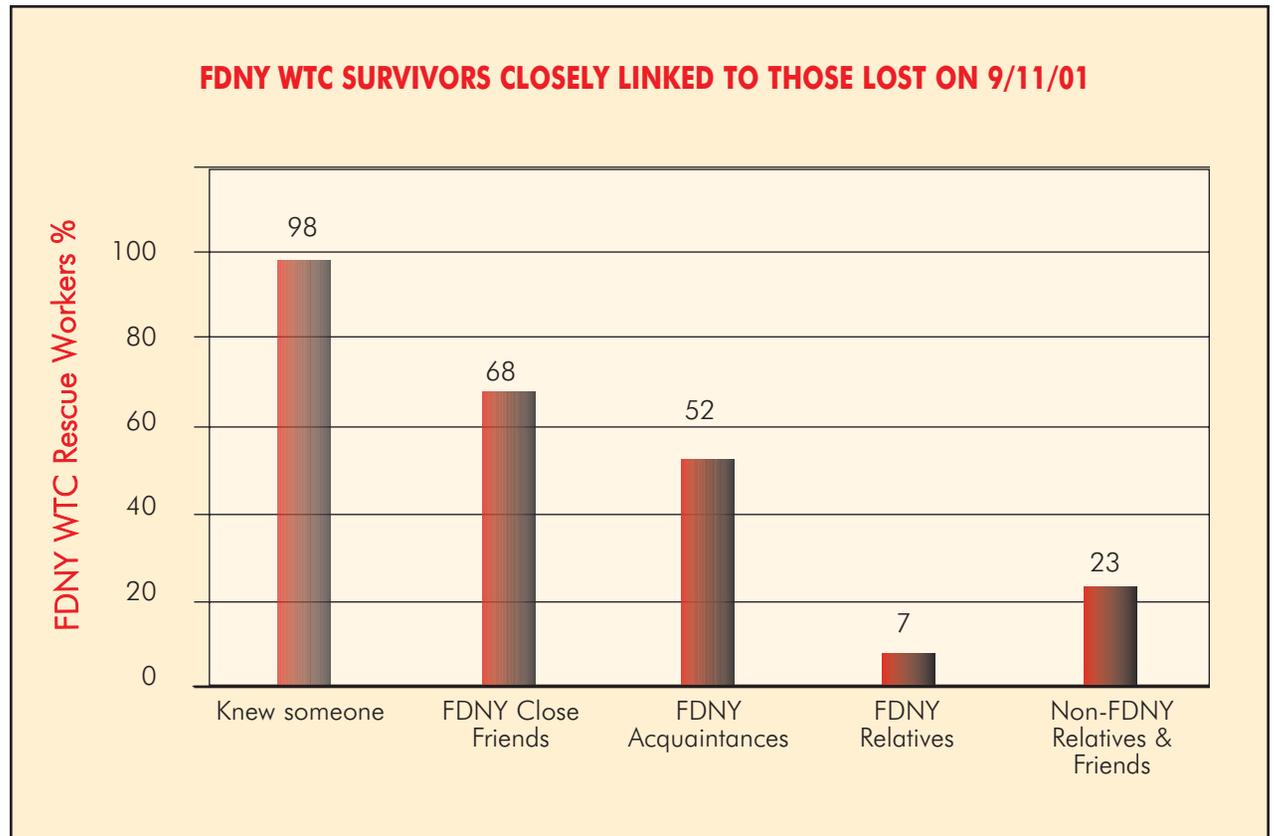
SECTION 3

Section 3 of this report will discuss the psychological effects of working at the WTC site by examining self-reported data from our medical questionnaires.



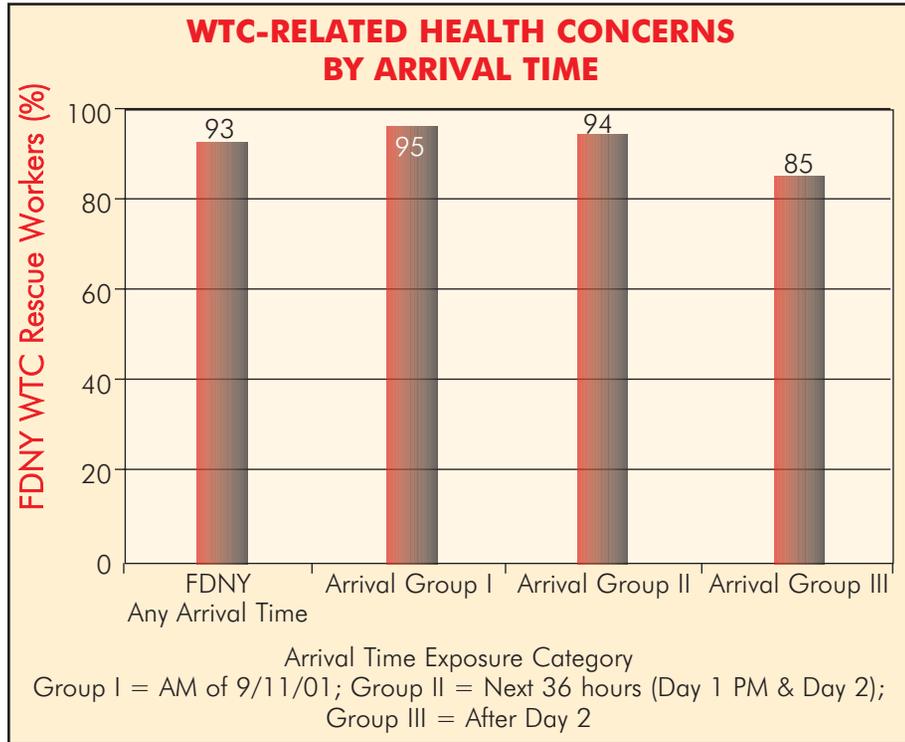
The majority of FDNY members reported close ties to those lost at the WTC site.¹

- 98% of FDNY rescue workers lost someone they knew on 9/11/01
- 68% lost FDNY close friends
- 52% lost FDNY acquaintances
- 7% lost FDNY relatives
- 23% lost non-FDNY relatives and close friends



An overwhelming 98% of FDNY rescue workers knew at least one person who died at the WTC and many knew more than one person. In addition to being members of the FDNY extended family, the 343 rescue workers we lost that tragic day held multiple, diverse roles as spouses, fiancés, significant others, fathers, sons, brothers, friends and coworkers. The close bonds formed between those members who sacrificed their lives and those who survived help to explain the extent of our members’ suffering in the aftermath of 9/11. Despite the loss of their loved ones, our members dedicated themselves to continuing the search for the missing. Each anniversary, memories and unexpected reports of new identifications can serve to rekindle these emotions.

Early responders expressed the greatest health concerns after working at the WTC site.²



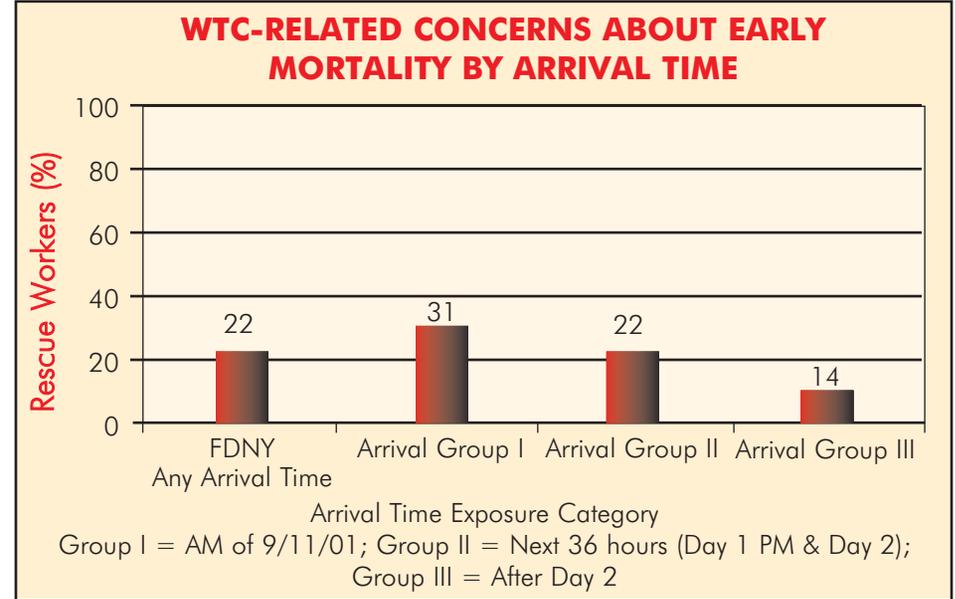
Year 1 Post-WTC

- **All FDNY Rescue Workers** 93% had WTC-related health concerns
- **Arrival Group I** 95% had health concerns
- **Arrival Group II** 94% had health concerns
- **Arrival Group III** 85% had health concerns

WTC-related health concerns are seen in all response groups, regardless of arrival time. Clearly, those groups arriving on Day 1 or Day 2 had significant concerns about their health when faced with air quality issues. These groups also personally witnessed the largest amount of injury, death and destruction.

²Data analysis collected from questionnaires completed by FDNY rescue workers Oct. 2001-Oct. 2002.

Concerns about early mortality among FDNY rescue workers are strongly correlated to arrival time at WTC.³



Years 2-4 Post-WTC

- **All FDNY Rescue Workers** 22% had early mortality concerns
- **Arrival Group I** 31% had early mortality concerns
- **Arrival Group II** 22% had early mortality concerns
- **Arrival Group III** 14% had early mortality concerns

In the mental health questionnaire, 22% of FDNY rescue workers answered that they were “feeling as if (their) future will be cut short” by WTC exposures and related illnesses. These results are not surprising, as those members present before and during the collapse of the towers personally experienced the prospect of death, witnessed the sudden loss of coworkers and inhaled the most dust. We know that regardless of arrival time, all FDNY rescue workers suffered varying inhalation exposures and were in proximity to those who perished. Concerns about early mortality among our FDNY rescue workers are to be expected. As can be seen in the next group of figures, these exposures and concerns translate into high rates for symptoms that are common in grief reactions, post-traumatic stress disorder (PTSD) and depression.

³Data analysis collected from questionnaires completed by FDNY rescue workers Oct. 2002-Aug. 2005.

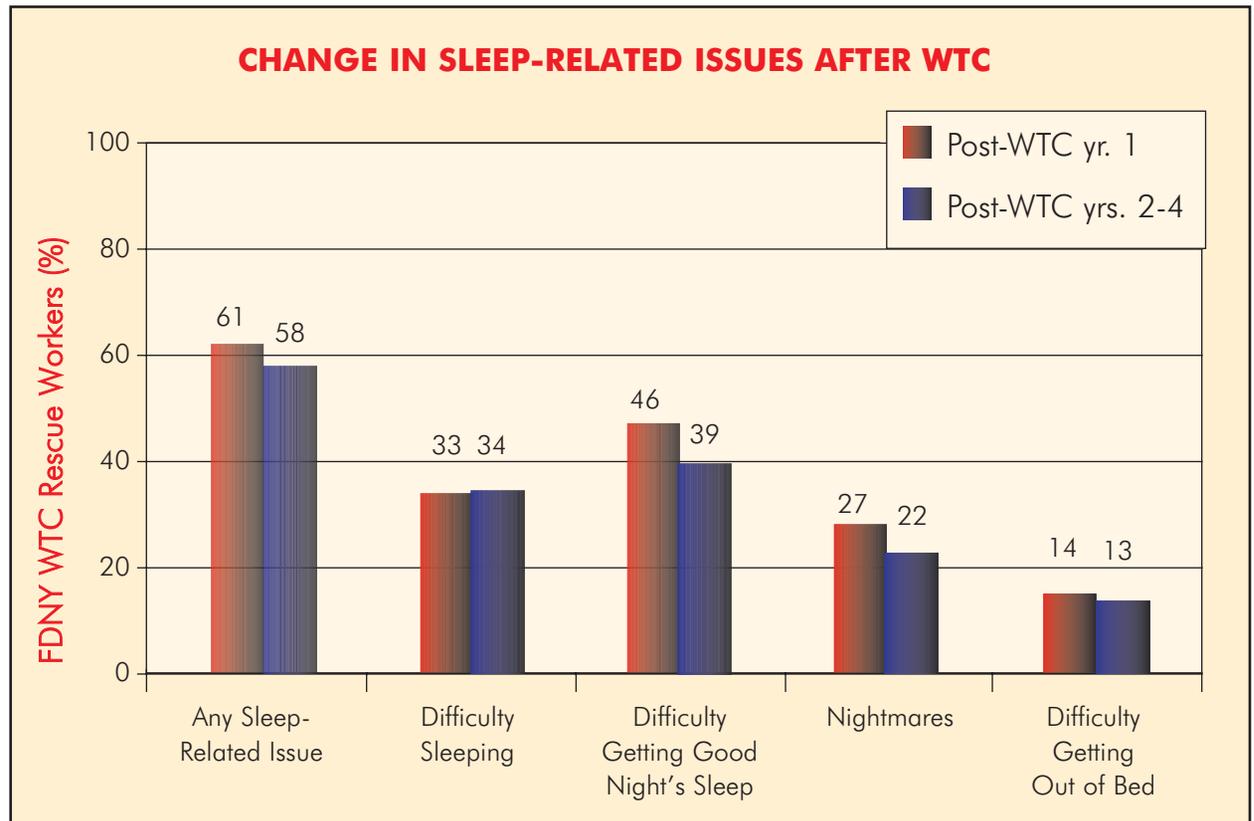
Year 1 Post-WTC

- 61% of all FDNY WTC rescue workers reported having sleep-related problems
- 33% had trouble sleeping
- 46% had trouble getting a good night's sleep
- 27% had nightmares
- 14% had difficulty getting out of bed

Years 2-4 Post-WTC

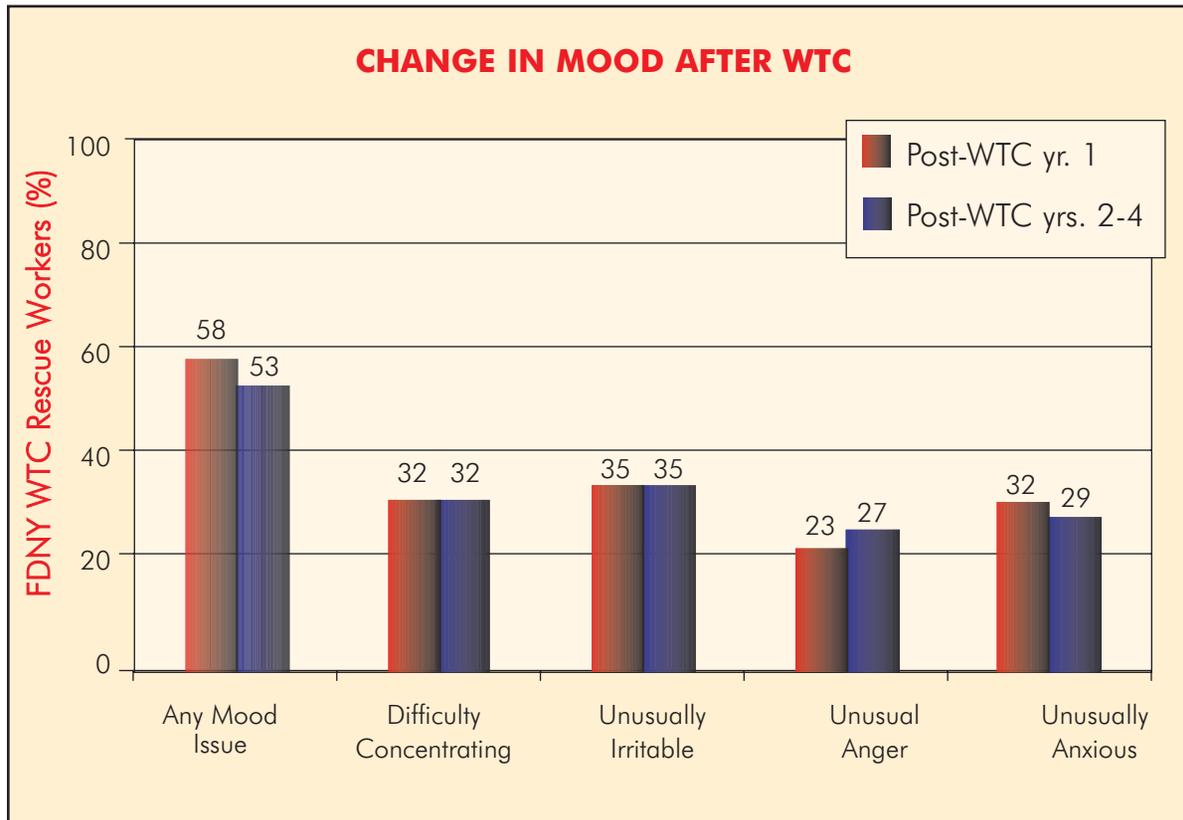
- 58% had sleep-related problems
- 34% had difficulty sleeping
- 39% had trouble getting a good night's sleep
- 22% had nightmares
- 13% had difficulty getting out of bed

FDNY rescue workers self-reported numerous sleep issues in the first four years after working at the WTC site.⁴



Sleep disturbances were prominent in the first year after 9/11/01 and persisted in years 2 through 4. This could be related to changes in mood and anxiety after the WTC attacks, nightmares, the amount of time spent working at the WTC or changes in exercise patterns. Our results indicate that although healing is occurring, these symptoms persist.

Mood changes that occurred after working at the WTC have endured for more than 4 years.⁵



Self-reported persistent changes in concentration, irritability and anger are widespread, with more than half of our WTC-exposed work force exhibiting at least one of these symptoms. Again, this shows long-term psychological effects from the WTC attacks and that continued attention to mental health is needed. Continued usage of counseling services at CSU indicates that this need remains strong 4 years later. (For a list of CSU locations and phone numbers, please see page 62.)

Year 1 Post-WTC

- 58% of all FDNY WTC rescue workers report a change in mood
- 32% had difficulty concentrating
- 35% were unusually irritable
- 23% had unusual anger
- 32% were unusually anxious

Years 2-4 Post-WTC

- 53% report a change in mood
- 32% had difficulty concentrating
- 35% were unusually irritable
- 27% had unusual anger
- 29% were unusually anxious

⁵Data analysis collected from questionnaires completed by FDNY rescue workers Oct. 2001-Aug. 2005.

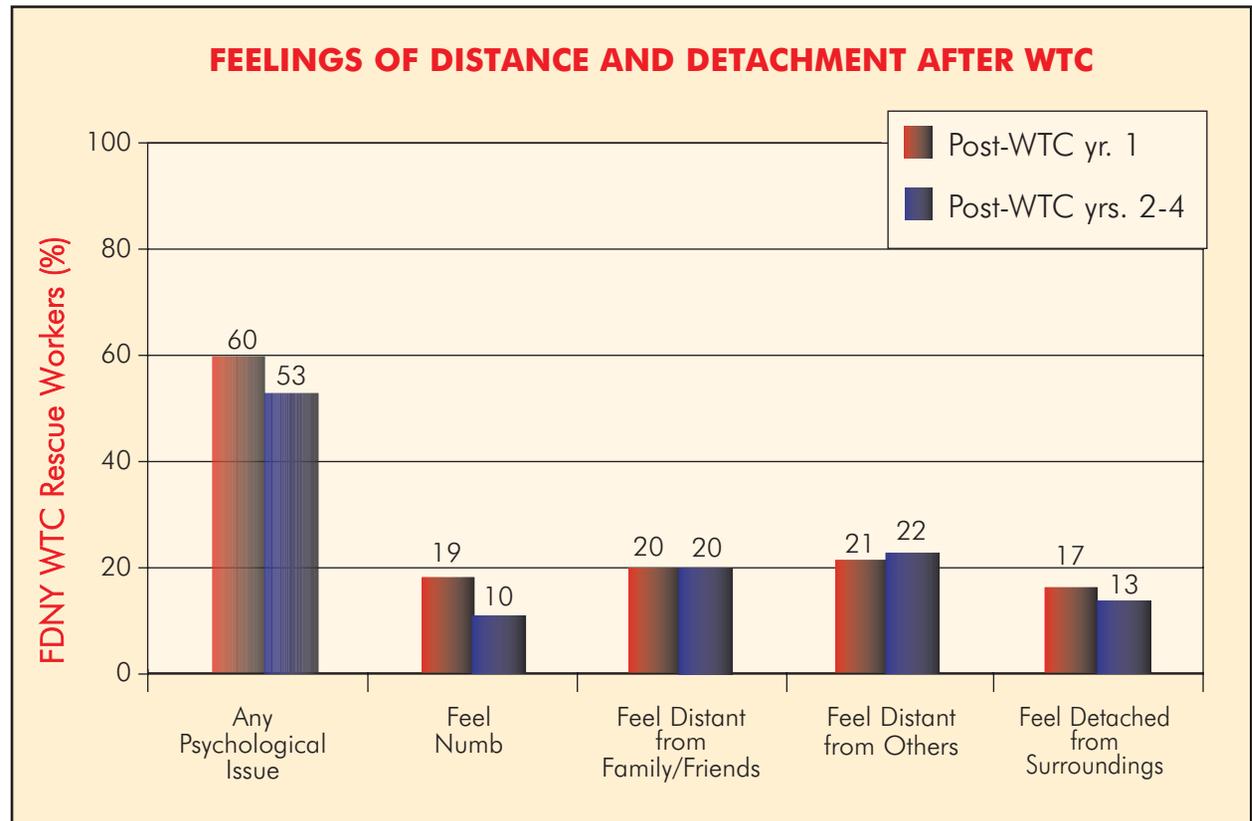
Year 1 Post-WTC

- 60% of FDNY rescue workers report psychological issues (including re-experience issues)
- 19% felt numb
- 20% felt distant from friends or family
- 21% felt distant from others
- 17% felt detached from surroundings

Years 2-4 Post-WTC

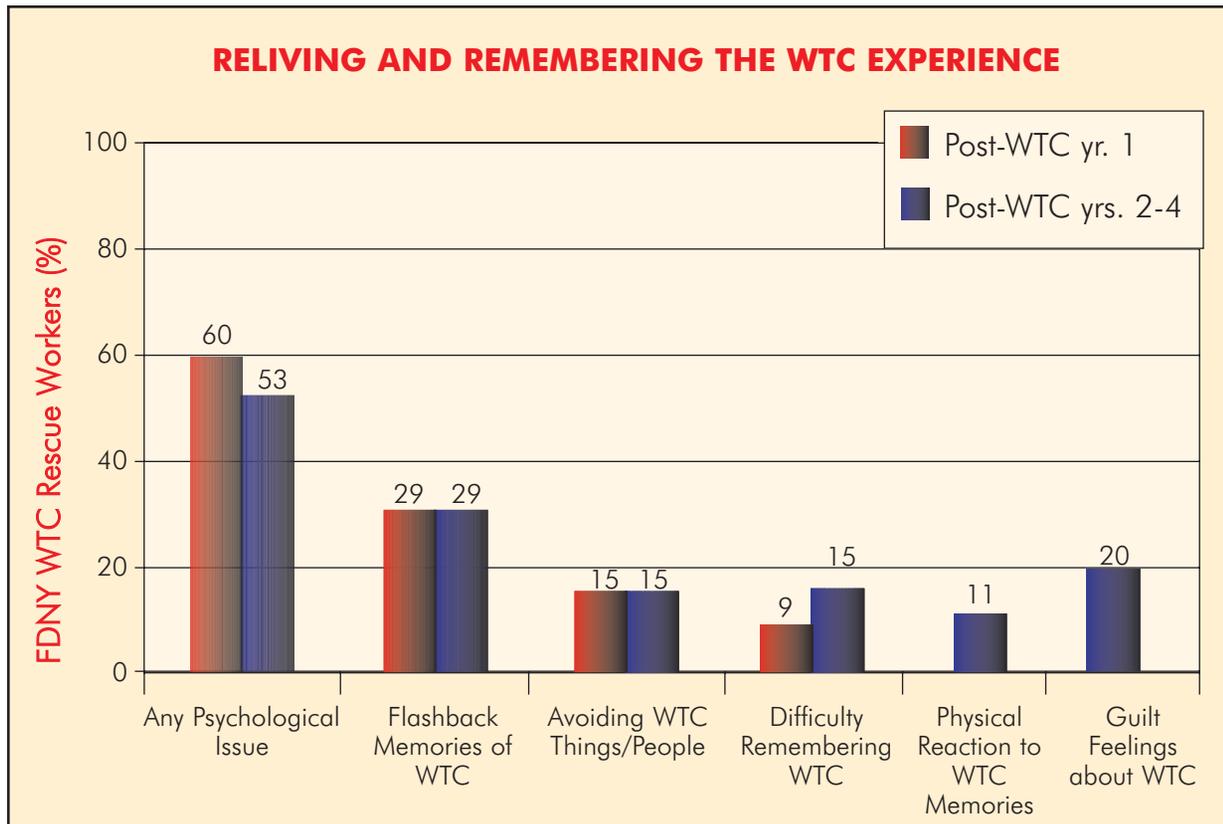
- 53% report psychological issues (including re-experience issues)
- 10% felt numb
- 20% felt distant from friends or family
- 22% felt distant from others
- 13% felt detached from surroundings

Many WTC rescue workers continue to feel distant and detached after 9/11/01.⁶



Many members showed persistent behavioral changes and complex emotional reactions consistent with a stress-induced response to the disaster. Feeling numb, distant or detached are frequent findings in those suffering from PTSD, a psychiatric disorder that occurs after exposure to a terrifying event in which serious physical harm occurred or was threatened (as in the case of the WTC attacks). PTSD may occur immediately or at a later time and may persist. Effective treatment strategies involving social support, counseling and/or medications are available at FDNY-CSU. It is unclear why some people are more prone to developing PTSD than others, but the process likely involves complex genetic, physical and social factors that are unique to each individual.

Nearly 30% of FDNY rescue workers continue to have flashbacks from the WTC experience.⁷



Year 1 Post-WTC

- 60% of FDNY rescue workers report psychological issues (including detachment issues)
- 29% had flashbacks of WTC
- 15% avoided things or people associated with WTC
- 9% had difficulty remembering the WTC

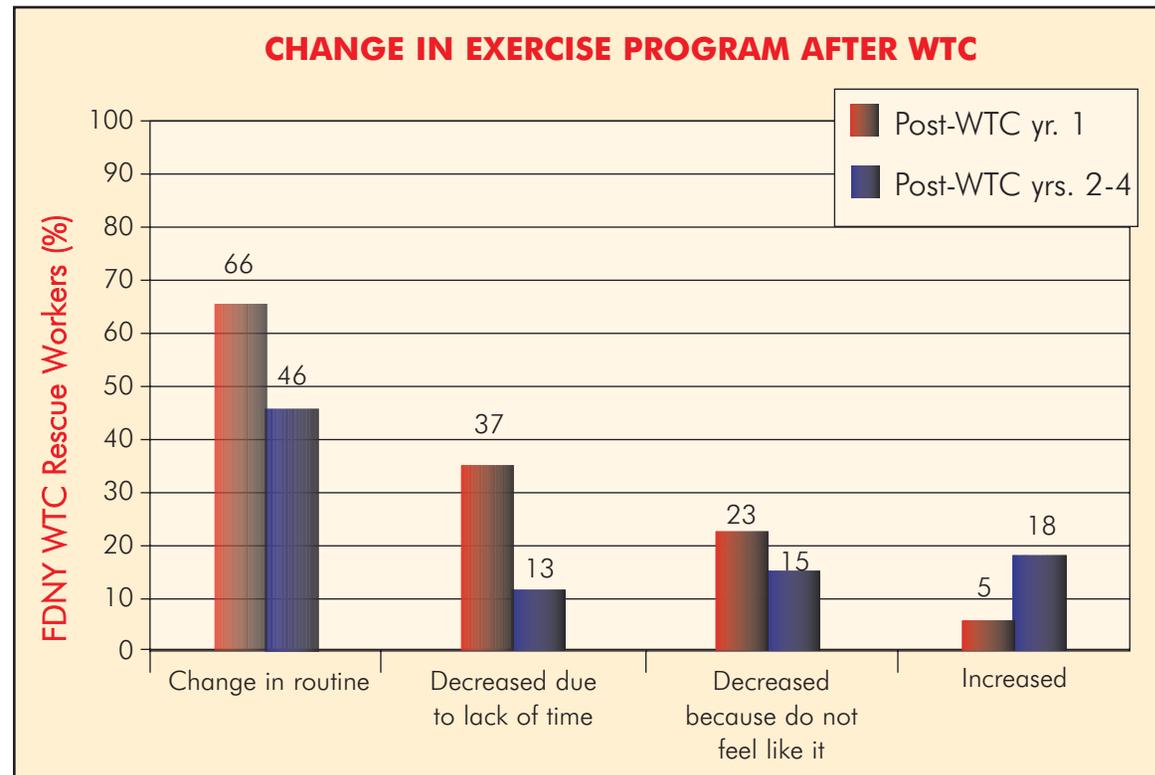
Years 2-4 Post-WTC

- 53% report psychological issues (including detachment issues)
- 29% had flashbacks of WTC
- 15% avoided things or people associated with WTC
- 15% had difficulty remembering the WTC
- 11% had physical reactions to WTC memories
- 20% had guilt feelings about WTC

With nearly one in three FDNY WTC rescue workers still having flashbacks, clearly, there are still many residual emotional reactions from that day. This, too, may be a sign of PTSD. Complicating matters, the stressful situations encountered in the day-to-day rescue work that our members perform can trigger or exacerbate WTC memories and stress reactions long after 9/11/01. Symptoms related to memories of 9/11 and flashbacks from the event continue to demonstrate persistent WTC-related grief reactions, PTSD and depression in our members. Guilt can take different forms; this includes guilt for those who were not present during the collapse and survivor guilt. In their struggle to hold on to those they lost, our members are clearly retaining painful memories. They are learning how best to identify and manage the residual stress associated with the WTC memories, while holding on to the need to “never forget.”

⁷Data analysis collected from questionnaires completed by FDNY rescue workers Oct. 2001-Aug. 2005.

In the first year after 9/11/01, the majority of our members exercised less than they did before the WTC attacks. However, these trends are reversing for a variety of reasons.⁸



Given the physical demands of the job, we always expect to find most FDNY rescue workers engaged in an active lifestyle. As our members are aware, exercise provides an excellent outlet for stress reduction. However, in the first year following the WTC attacks, exercise routines were decreased in more than half of the FDNY rescue workers. This may have complicated the ability to handle stress. The increased activity level between year 1 and years 2-4 reflects increased time available for exercise and, hopefully, the improving state of health (physical and mental) of our rescue workers.

Year 1 Post-WTC

- 66% of FDNY rescue workers reported a change in exercise program post-WTC
- 37% exercised less due to lack of time
- 23% exercised less because they did not feel like it
- 5% exercised more

Years 2-4 Post-WTC

- 46% reported no change in exercise compared to pre-WTC routine
- 13% exercised less due to lack of time
- 15% exercised less because they did not feel like it
- 18% exercised more