

## The heroin epidemic: Experts see it ending

Two years ago President Nixon declared that "public enemy number one" was an insidious white powder known as skag, smack, junk or heroin. Increasing use of the addicting drug was linked to rising crime rates and social disruption. Heroin addiction was called the White Plague and experts agreed that it was an epidemic that would get worse before it got better (SN: 6/26/71, p. 433). Some warned that addicted Vietnam veterans would return and further infect the youth of America. Now, the same experts are saying that the worst is over and things are already getting better.

## The earth glitch that wasn't

Early in August of 1972, the sun gathered its energies and burst forth with what may have been the most powerful solar storm since the time of Galileo. Its steady outpouring of cosmic rays exploded into a raging torrent, tearing through space and distorting the magnetic field of the solar system.

So great was its power that two scientists, John Gribbin and Stephen Plagemann, maintained that the storm had apparently even slowed down the rotation of the earth (SN: 5/19/73, p. 321). Not by much—a single day, they reported in *NATURE*, was just a few thousandths of a second longer—but enough to apparently show up in the Universal Time measurements of the U.S. Naval Observatory.

Two other investigators, however, disagree. N. P. J. O'Hora and C. J. A. Penny of England's Royal Greenwich Observatory compared measurements from six of the stations in the worldwide network that provides data for the Universal Time standard of the Bureau Internationale de l'Heure (the Naval Observatory is one such station) and have concluded that "there was no significant change in the length of the day in August 1972, certainly nothing more remarkable than occurred several times in the year. . . ."

Variations in instruments, weather and other factors could all cause fluctuations in such subtle measurements, they report in the Aug. 17 *NATURE*. "Indeed, if a solar storm of such exceptional magnitude . . . exerted such little influence on the rate of rotation of the earth, then there are good grounds for believing that changes in the length of the day are induced by some other mechanism."

"In early 1973, the heroin epidemic appeared to be waning in the District of Columbia," report Robert L. DuPont and Mark H. Greene in the Aug. 24 *SCIENCE*. "Similar trends have been noted in New York City, which suggest that this is not a local phenomenon." DuPont is director of the White House Special Action Office for Drug Abuse Prevention. He was, until last month, director of the Narcotics Treatment Administration in Washington. Greene is the epidemic intelligence officer at the Center for Disease Control in Atlanta.

With data collected since the NTA opened its doors in 1970, the authors show that new heroin use rose sharply from 1965 through 1968, peaked in 1969 and fell dramatically in 1970, 1971 and 1972. A similarly optimistic decline was noted for the number of deaths due to heroin overdose. In the summer of 1971, 29 deaths were reported during a three-month period in Washington. During all of 1972, there were only 20 heroin overdose deaths in the city, and there has been only one such death there in the first seven months of 1973.

DuPont and Greene attribute this apparent success in the heroin war to two strategies. The first was the NTA's comprehensive, multimodal treatment program for addicts, which relied substantially, but not exclusively, on methadone. The second was a major law enforcement commitment to reduce the supply of heroin in the city. "It is the combination of the two that is important," they emphasize. For instance, when heroin is plentiful and cheap, there is little incentive for the addict to seek treatment. When heroin is scarce and treatment not available, the addict is often forced to turn to crime to support the habit. But when heroin is scarce and treatment is available, the addict has an alternative to crime.

Jerome H. Jaffe, DuPont's predecessor at the SAODAP, reaches similar conclusions in the August *PSYCHOLOGY TODAY*. "We have come up with enough information," he says, "to believe that as far as heroin is concerned the worst is over." Like DuPont and Greene, Jaffe emphasizes the effectiveness of making treatment available while making heroin unavailable. These tactics, Jaffe says, have helped bring the national mortality rate due to overdose back down to the 1970 level. And there is evidence that most Vietnam veterans who became addicted overseas managed to kick the habit once they returned home.

What caused the heroin epidemic is still a question, but Jaffe cites several things he feels were important. There was a tremendous affluence that provided the money and leisure for the evolution of a drug-using subculture.

## Soviet conference signals change on genetics

By accepting an invitation from the Soviet Union to hold the next International Congress of Genetics in Moscow in 1978, the 2,700 geneticists meeting in Berkeley last week at the current congress acknowledged a tacit Russian bid to correct a 40-year-old anomaly in the Soviet scientific establishment.

Since the 1930's, when T. D. Lysenko caught Stalin's ear with his own pet theories of heredity, the objective study of genetics has been virtually nonexistent in the Soviet Union. Lysenko appealed to the prevailing Marxist ideology with a version of the idea, already discredited in the 19th century, that parents can pass on to their offspring externally acquired characteristics, such as desirable behavior patterns. A purge of many leading Soviet scientists followed, and only since the downfall of Lysenkoism in 1964 has work based on the theory of genes as the units of heredity begun.

Some geneticists last week expressed misgivings over accepting the Soviet invitation, noting that a leading Soviet geneticist, Zhores A. Medvedev, was stripped of his citizenship this month while in London attempting to attend the Berkeley congress (SN: 8/25/73, p. 106). In answer to fears that the Soviet Union might not let some scientists from Israel or China attend the 1978 congress, N. V. Turbin, head of the Russian delegation, assured the geneticists all would be welcome.

By accepting the invitation, the geneticists hoped to give moral support to their Russian colleagues. Also they considered the financial backing implied in the official Soviet overture. The alternatives included unofficial invitations from Brazil and Australia, neither of which promised government financing of the 1978 event.

And, he says, "We had a fantastic number of young people. . . . We had almost an autonomous youth culture that by its sheer numbers overwhelmed the value system of the older groups." If this increase in young people can account, in part, for the heroin epidemic, perhaps, as Daniel P. Moynihan suggests (SN: 8/11/73, p. 88), the decrease in young people can account, in part, for the end of the heroin epidemic.

In conclusion, says Jaffe, "I doubt that we will experience another epidemic of heroin use like this one we just came through. Not for another 10 years, at least, until everyone has forgotten this one." □