IN THE SUPREME COURT OF FLORIDA

JENNIFER CLARISE JOHNSON, Petitioner, v. STATE OF FLORIDA, Respondent.	)))))))))	CASE NO. 77,831 On Appeal From the District Court of Appeal of the Fifth District of Florida

BRIEF AMICUS CURIAE OF THE AMERICAN MEDICAL ASSOCIATION, THE AMERICAN ACADEMY OF PEDIATRICS, THE AMERICAN COLLEGE OF OBSTETRICIANS AND GYNECOLOGISTS, AND THE FLORIDA MEDICAL ASSOCIATION IN SUPPORT OF APPELLEE

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Cases

Linder v. United States, 268 U.S. 5 (1925)..................6

Robinson v. California, 370 U.S. 660 (1962).................6

Legislative Materials

Coordinating Federal Drug Policy for Women, Infants and Children: Hearings Before the Senate Committee on Governmental Affairs, 101st Cong., 1st Sess. (1989)....9,11

Getting Straight, overcoming Treatment Barriers for Addicted Women and Their Children: Hearing Before the Select Committee on Children, Youth, and Families, House of Representatives, 101st Cong., 2d Sess. (1990)..19,20, 21

United States General Accounting Office, Drug-Exposed Infants, A Generation at Risk: Report to the Chairman, Committee on Finance, U.S. Senate (1990 GAO/HRD-90-138)...............................passim

Scientific and Other Authorities

American Medical Association Board of Trustees, Legal Interventions During Pregnancy, 264 J.A.M.A. 2663 (1990)..6,7, 19

American Medical Association, Proceedings of the House of Delegates: 43rd Interim Meeting Board of Trustees Report Y (Dec. 3-6, 1989)............................passim

American Medical Association, Proceedings of the House of Delegates: 137th Annual Meeting, Board of Trustees Report NNN (June 26-30, 1988)........................passim

American Psychiatric Association, Diagnostic and Statistical Manual of Mental Disorders (DSM-III-R) (3d ed. rev. 1987)....................................5,7

Butyniski, State Resources and Services Related to Alcohol and Drug Abuse Problems FY 1988 10

Chasnoff, Drug Use in Pregnancy: Parameters of Risk, 35 The Pediatric Clinics of No. Am. 1403 (1988).......16,18, 23

Chasnoff, Griffith, MacGregor, Dirkes & Burns, Temporal Patterns of Cocaine Use in Pregnancy: Perinatal Outcome, 261 J.A.M.A. 1741 (1989)........................12,13

Cherukuri, Minkoff, Feldman, Parekh & Glass, A Cohort Study of Alkalerdal Cocaine ("Crack") in Pregnancy, 72 Obstetrics and Gynecology 147 (1988).................18

D. Danforth & J. Scott, Obstetrics & Gynecology (5th ed. 1986)...13

English, Prenatal Drug Exposure: Grounds for Mandatory Child Abuse Reports?, 11 Youth Law News 3 (1990)..19

Finnegan, Connaughton, Emich & Wieland, Comprehensive Care of the Pregnant Addict and its Effect on Maternal and Infant Outcome, 1 Contemp. Drug Problems 795 (1972).....................................17,22

Frank, Zuckerman, et al., Cocaine Use During Pregnancy: Prevalence and Correlates, 82 Pediatrics 888...........12, 18,20

Garrison, Why Terminate Parental Rights?, 35 Stan. L. Rev. 423 (1983)..25

Gawin & Kleber, Abstinence Symptomology and Psychiatric Diagnosis in Cocaine Abusers: Clinical Observations, 43 Arch. Gen. Psychiatry 107 (1986)...................17

Goldstein, Freud & Solnit, Before the Best Interest of the Child, 79 (1990)....................................25

Goldstein, Freud & Solnit, Beyond the Best Interests of the Child (2d ed. 1981)................................25

Grimm, Drug Exposed Infants Pose New Problems for Juvenile Courts, 11 Youth Law News 9 (1990)....................24,25

Krondstadt, Complex Developmental Issues of Prenatal Drug Exposure, 1 The Future of Children 36 (1991)..........24

Lockwood, What's Known and What's Not Known About Drug-Exposed Infants, 11 Youth Law News 15 (1990)..........16,20

MacGregor, Keith, Bachicha & Chasnoff, Cocaine Abuse During Pregnancy: Correlation Between Prenatal Care and Perinatal Outcome, 74 Obstetrics and Gynecology 882 (1989)..21

McNulty, Pregnancy Police: The Health Policy and Legal Implications of Punishing Pregnant Women for Harm to Their Fetuses, 16 N.Y.U. Rev. L. & Soc. Change 277 (1987-88) 9,10

Miller, Chairman, Select Committee on Children, Youth, and Families, U.S. House of Representatives, Addicted Infants and Their Mothers, 9 Zero to Three: Bulletin of the National Center for Clinical Infant Programs 20 (1989) 10

Nelson & Milliken, Compelled Treatment of Pregnant Women, 259 J.A.M.A. 1060 (1988) 8

Ronkin, FitzSimmons, Wapnes & Finnegan, Protecting Mother and Fetus from Narcotic Abuse, 31 Contemporary Ob/Gyn 178 (1988) 14

Saito, Yazawa, Hashiguchi, Kumasaka, Nishi & Kato, 112 Am.J. Obstet. Gynecol. 31 Time of Ovulation and Prolonged Pregnancy, (1972) 13

Sosin, Colsin, Grossman, Homelessness in Chicago: Poverty and Pathology, Social Institutions and Social Change 59-61 (1988) 25

Weston, Ivins, Zuckerman, Jones, Lopez, Drug Exposed Babies: Research and Clinical Issues, 9 Zero to Three: Bulletin of the National Center for Clinical Infant Programs 1 (1989) 18

Zuckerman, Drug Exposed Infants: Understanding the Medical Risk 1 The Future of Children 26 (1991) 24,25

Zuckerman, et al., Effects of Maternal Marijuana and Cocaine Use on Fetal Growth, 320 Eng. J. Med. 762 (1989) 21

Zuckerman & Bresnahan, Developmental and Behavioral Consequences of Prenatal Drug and Alcohol Exposure (accepted for publication in The Pediatric Clinics of No. Am., 1991) 18, 21-23

INTEREST OF AMICI

The AMERICAN MEDICAL ASSOCIATION ("AMA") is a private, voluntary, non-profit organization of physicians. The AMA was founded in 1846 to promote the science and art of medicine and to improve the public health. It is the nation's largest professional medical organization with over 280,000 members who practice in all fields of medical specialization, including obstetrics, gynecology, neonatal-perinatal medicine, pediatrics, and addiction medicine. The AMA and its members are concerned about the negative health effects of prenatal drug exposure, but are also aware that both the incidence of prenatal drug exposure and the extent of harm to infants can be reduced with appropriate intervention. The AMA is concerned that state action be consistent with current medical knowledge to insure that harm to women and their infants is reduced or avoided to the greatest possible extent.

The AMERICAN COLLEGE OF OBSTETRICIANS AND GYNECOLOGISTS ("ACOG") is a private, voluntary, nonprofit organization of physicians who specialize in obstetric and gynecological care. Its 30,000 members represent approximately 90% of all obstetricians and gynecologists practicing in the United States. Because of its concerns for the accessibility of obstetric care for all women and for the integrity of the physician-patient relationship, ACOG opposes criminal sanctions for women who abuse substances during pregnancy and supports efforts to increase resources for prenatal care, drug treatment, and rehabilitation.

The AMERICAN ACADEMY OF PEDIATRICS ("AAP") was founded in 1930 in order to create an independent forum for the special

health and development needs of children. It is a nonprofit association of approximately 38,000 physicians in the United States, Canada and Latin America certified in the specialized care of infants, children and adolescents. The Academy's principal purpose is to ensure the attainment by all children of their full potential for physical, emotional and social health. The Academy believes that the health policy issues posed by drug-exposed infants are how to prevent infants from being exposed to potentially harmful drugs before birth, and how to address the needs of drug-exposed infants and children. Believing that premature measures taken toward pregnant women, such as criminal prosecution and inceration, have no proven benefits for infant health, the Academy is concerned that such involuntary measures may discourage mothers and their infants from receiving the very medical care and social support systems that are crucial to their treatment.

The FLORIDA MEDICAL ASSOCIATION, INC. ("FMA") is a private, voluntary, non-profit organization of approximately 17,000 Florida-licensed physicians dedicated to promoting the science and art of medicine. In addition to the possibility that the state of Florida's position may conflict with the aforementioned purpose of the organization, many FMA members specialize in fields which will be directly affected by the outcome of this case. The FMA is vitally concerned that this case be resolved consistent with current medical knowledge so that the highest standards of science and medicine be maintained.

SUMMARY OF ARGUMENT

Medical facts indicate that the policy of prosecuting women who use drugs during pregnancy is irrational because it does not further the state's purpose of preventing harm to infants. Moreover, the policy is counterproductive and dangerous as it will actually result in greater harm to infants.

Drug addiction is an illness which, like any illness, is not due simply to a failure of individual willpower. Criminal sanctions are therefore inappropriate for purposes of either punishment or deterrence. Overcoming drug addiction requires medical treatment. While it is arguable that the threat of sanctions might influence women to enter drug treatment programs, this response to sanctions is unlikely, because drug treatment for pregnant women is largely unavailable.

Even if sanctions could affect drug-using behavior, they do not create incentives beneficial to infant health and are, in fact, likely to result in greater harm. The fear of prosecution would not influence women to discontinue drug use early enough to significantly reduce harm to infants. In addition, withdrawal may in some cases complicate pregnancy and threaten fetal health, and should not therefore be indiscriminately encouraged.

More importantly, women who cannot avoid drug use are likely to respond to sanctions by trying to avoid detection. Because of the need for physicians to participate in the state's policy of prosecution, women will be encouraged to avoid contact and communication with medical providers. This will greatly

increase the harm to infants. First, the possibility of safe and timely withdrawal from drugs during pregnancy is increased if women are involved with medical providers. In addition, even if women continue their drug use, the effects of drug use and of other factors associated with drug use can be greatly reduced through prenatal care and counseling. Finally, prenatal medical services can contribute to the health and development of the infant postnatally.

ARGUMENT

I. DRUG ADDICTION IS AN ILLNESS WHICH CANNOT GENERALLY BE OVERCOME WITHOUT TREATMENT. CRIMINAL SANCTIONS ARE THEREFORE INAPPROPRIATE FOR PURPOSES OF EITHER PUNISHMENT OR DETERRENCE.

The medical profession has long recognized that drug dependence is an illness which cannot generally be overcome without treatment. "Psychoactive Substance Dependence" is listed as a mental illness with specific diagnostic criteria in the Diagnostic and Statistical Manual of Mental Disorders (DSM-III-R), which is prepared by the American Psychiatric Association and used by psychiatrists to diagnose mental illness. The DSM-III-R describes substance dependence as

> a cluster of cognitive, behavioral, and physiologic symptoms that indicate that the person has impaired control of psychoactive substance use and continues use of the substance despite adverse consequences. The symptoms of dependence syndrome include, but are not limited to, the physiologic symptoms of tolerance and withdrawal.[1]

The American Medical Association has examined the problem of drug dependence and issued a comprehensive analysis. According to the report,

> Treatment -- in the form of medical, psychological and psychiatric care -- is a necessary and appropriate response to drug abuse. Reluctance to provide such care to drug abusers reflects unwarranted misconceptions about the nature of addiction. While there is much to be learned about drug dependency, it is clear that addiction is not simply the product of a failure of individual willpower. Instead, dependency is the product of complex hereditary and environmental factors. It is properly viewed as a disease, and one

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[1] American Psychiatric Association, Diagnostic and Statistical Manual of Mental Disorders (DSM-III-R) 166 (3d ed. rev. 1987).

that physicians can help many individuals control and overcome.[2]

In addition to social and psychological causes, drug dependence, like other diseases, appears to be influenced by biologic or genetic factors.[3]

The case law has also recognized that drug addiction is an illness requiring medical treatment. As early as 1925, the Supreme Court stated that addicted persons are "diseased and proper subjects for [medical] treatment."[4] The Court reaffirmed this principle in Robinson v. California, when it found unconstitutional a law making the status of narcotic addiction a criminal offense.[5] The court stated that "narcotic addiction is an illness ... which may be contracted innocently or involuntarily."[6] In his concurring opinion in Robinson, Justice Douglas noted that, "the addict is under compulsions not capable of management without outside help."[7]

Because addicted individuals are physically and psychologically dependent on the substance to which they are addicted, they are unable to stop using the drug without outside assistance. People addicted to illicit substances have impaired competence in making decisions about the use of those substances.[8] In fact, as described by DSM-III-R, one of the

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2 American Medical Association, Proceedings of the House of Delegates: 137th Annual Meeting, Board of Trustees Report NNN 236, 241 (June 26-30, 1988) [hereinafter AMA Rpt. NNN].
3 Id. at 247.
4 Linder v. United States, 268 U.S. 5, 18 (1925).
5 370 U.S. 660 (1962).
6 Id. at 667.
7 Id. at 671.
8 American Medical Association Board of Trustees, Legal Interventions During Pregnancy, 264 J.A.M.A. 2663, 2667 (1990).

hallmarks of drug dependency is the inability to reduce or control substance abuse despite adverse consequences.[9]

Because drug addiction is an illness, the court below erred in its conclusion that Ms. Johnson "voluntarily" ingested cocaine.[10] Contrary to the court's implication, Ms. Johnson did not have the requisite criminal intent to be punished. As the Board of Trustees of the American Medical Association has pointed out, punishing people for substance abuse:

> ignores the impaired capacity of substance-abusing individuals to make decisions for themselves. In all but a few cases, taking a harmful substance such as cocaine is not meant to harm the fetus but to satisfy an acute psychological and physical need for that particular substance. If a pregnant woman suffers from a substance dependency, it is the physical impossibility of avoiding an impact on fetal health that causes severe damage to the fetus, not an intentional or malicious wish to cause harm.[11]

The conclusion of the concurring opinion below, that "it is no undue burden upon an expectant mother to avoid cocaine use during the last several days of pregnancy," also shows a misunderstanding of the nature of drug dependency.[12]

More importantly, because of the compulsive nature of drug dependency, criminal sanctions are unlikely to achieve the goal of deterring drug use among pregnant women. Physicians are

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[9] DSM-III-R, supra note 1, at 166. See also, American Medical Association, Proceedings of the House of Delegates: 43rd Interim Meeting Board of Trustees Report Y 95, 106 (Dec. 3-6, 1989) [Hereinafter AMA Rpt. Y] (Stating that "alcoholism and drug dependence ... are diseases characterized by compulsive use in the face of adverse consequences.")

[10] Johnson v. State, No. 89-1765, slip op. at 2 (Fla. Dist. Ct. App. April 18, 1991) [hereinafter slip op.]

[11] AMA, Legal Interventions, supra note 8, at 2667-68.

[12] Slip op. at 2 (Cobb, J. concurring)

generally impressed with the amount of personal health risk and voluntary self-restraint exhibited by pregnant women for the sake of their fetuses' health.[13] If threats or incentives were able to sufficiently influence drug-using behavior, pregnancy itself would provide the necessary motivation for pregnant women to discontinue their drug use. Even if punishment might play a useful deterrent role, criminal penalties, such as those for possession of illicit substances, already exist. However, these sanctions have not generally been effective. Pregnant women who are not deterred by existing penalties are unlikely to be affected by additional sanctions.

II. DRUG TREATMENT, THE PRIMARY MEANS BY WHICH ADDICTED INDIVIDUALS CAN OVERCOME THEIR ILLNESS, IS LARGELY UNAVAILABLE TO PREGNANT WOMEN.

Because persons addicted to illegal substances are generally unable to overcome their addiction independently, the most that sanctions can be hoped to accomplish is to influence individuals to enter drug treatment. Women who seek help, however, are usually frustrated because drug treatment for pregnant women is largely unavailable.

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[13] Nelson & Milliken, Compelled Treatment of Pregnant Women, 259 J.A.M.A. 1060, 1065 (1988). Indeed there is evidence in the record that Jennifer Johnson shared this concern for her fetus, and even risked facing criminal sanctions for the sake of her fetus when she informed hospital staff of her drug use precisely because of her concern about its impact on her soon-to-be-child. Johnson v. State, No. 89-890-CFA, (July 13, 1989) Record on Appeal at 40 [Hereinafter RA].

Nationwide, drug treatment programs are unable to meet the demand for their services. Heroin and cocaine addicts face waiting lists of up to a year to enter treatment programs in many areas.[14] Although thousands of addicts are currently on waiting lists, it is estimated that thousands more would probably be willing to enter treatment if it were available.[15] In Florida, it has been reported that over 2000 people are waiting for treatment at any given time.[16] The length of waiting lists frequently extends beyond pregnant women's due dates so that women are unable to receive treatment in time to prevent the passage of substances to their infants upon delivery.[17]

Treatment is even more scarce for women, especially if they are pregnant. Most drug treatment programs are not equipped to handle the needs of pregnant women. Treatment centers do not typically have prenatal or obstetrical services and therefore refuse to accept pregnant women. Providers fear that treatment for addiction not coordinated with prenatal care or obstetrical services may adversely affect fetuses and may thereby subject them to legal liability.[18] Treatment for pregnant women is

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[14] AMA Rpt. NNN, supra note 2 at 241.

[15] Id.

[16] Coordinating Federal Drug Policy for Women, Infants and Children: Hearings Before the Senate Committee on Governmental Affairs, 101st Cong., 1st Sess. (1989) (Statement of Gregory Coler, Secretary, Florida Department of Health and Rehabilitative Services at 5) [Hereinafter Coler, Hearings].

[17] McNulty, Pregnancy Police: The Health Policy and Legal Implications of Punishing Pregnant Women for Harm to Their Fetuses, 16 N.Y.U. Rev. L. & Soc. Change 277, 301-02 (1987-88).

[18] United States General Accounting Office, Drug-Exposed Infants, A Generation at Risk: Report to the Chairman, Committee on Finance, U.S. Senate 9 (1990 GAO/HRD-90-138) [Hereinafter GAO].

therefore even more difficult to obtain than treatment generally. One study, which surveyed 95% of the drug treatment programs in New York City, found that 54% refused to treat any pregnant women, 67% would not accept pregnant women on Medicaid, and 87% had no services available to pregnant women who were addicted to crack cocaine.[19] Similarly, a study conducted by the United States House of Representatives found that two-thirds of hospitals have no place to refer substance abusing pregnant women for treatment.[20]

Another problem for pregnant women is that most treatment centers are unable to provide child care services. Nationwide, ninety-two percent of treatment programs have no provisions for children.[21] Many drug-dependent pregnant women, however, already have children for whom they are the primary caretakers.[22] In order to enter a residential treatment program, these women would have to surrender their children to foster care.[23] According to the United States Government Accounting Office, lack of child care is a major barrier for drug-dependent pregnant women and prevents them from being able to take

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19 AMA Rpt. Y, supra note 9, at 104.

20 Miller, Chairman, Select Committee on Children, Youth, and Families, U.S. House of Representatives, Addicted Infants and Their Mothers, 9 Zero to Three: Bulletin of the National Center for Clinical Infant Programs 20 (1989).

21 Butyniski, State Resources and Services Related to Alcohol and Drug Abuse Problems FY 1988, 30. (The National Association of State Alcohol and Drug Abuse Directors, Washington, D.C.)

22 McNulty, supra note 17, at 301.

23 Id.

advantage of even the limited treatment resources that are available to pregnant women.[24]

There is no indication that barriers to treatment for pregnant women with or without children are any less severe in Florida than they are in the rest of the nation. The Secretary of the Florida Department of Health and Rehabilitative Services has reported that "Florida's alcohol and drug treatment programs face limited resources and severe overcrowding, causing the specialized needs of women, especially pregnant women, to largely go unmet."[25]

The lack of sufficient drug treatment for pregnant women raises further questions about the appropriateness of criminal sanctions for purposes of either punishment or deterrence. It is clearly unreasonable to punish women for failure to receive treatment when treatment is unavailable. Similarly, the goal of deterring drug-using behavior by pregnant women cannot be achieved in the absence of treatment resources.

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[24] GAO, supra note 18, at 9. The AMA has also recognized this problem and has stated that "treatment centers are needed that are designed to accommodate the needs of women. Many women seeking residential drug treatment need child care services, yet such care is rarely available. The unavailability of child care not only prevents many women from getting treatment, but also postpones their children's transition into a drug-free home environment." AMA Rpt. NNN, supra note 2, at 242.

[25] Coler, Hearings, supra note 16, at 10.

III. EVEN IF CRIMINAL SANCTIONS COULD AFFECT DRUG-USING BEHAVIOR, THEY WOULD NOT CREATE INCENTIVES BENEFICIAL TO INFANT HEALTH AND MAY ACTUALLY LEAD TO GREATER HARM.

The effects of drug use on fetal health can be minimized only if drug use is discontinued early in pregnancy.[26] For example, drug treatment before the third trimester is required to reduce the risks of low birth weight and prematurity, conditions which often require extensive neonatal intensive care.[27] These risks can be reduced even more significantly if drug use is discontinued by the end of the first trimester.[28]

Despite these considerations, the law under which Ms. Johnson is being prosecuted relies on post-natal evidence, which reflects only relatively recent drug use. Cocaine metabolites can be detected through urinalysis for only 24 to 72 hours after ingestion of cocaine.[29] Thus even if women could be influenced to discontinue drug use by the threat of prosecution under laws like those used by the State of Florida, they would be motivated only to stop drug use toward the end of pregnancy, which would be too late to reduce risks to infant health.[30]

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[26] AMA Rpt. Y, supra note 9, at 102.

[27] GAO, supra note 18, at 8, 36.

[28] Chasnoff, Griffith, MacGregor, Dirkes & Burns, Temporal Patterns of Cocaine Use in Pregnancy: Perinatal Outcome, 261 J.A.M.A. 1741, 1742 (1989).

[29] Frank, Zuckerman, et al., Cocaine Use During Pregnancy: Prevalence and Correlates, 82 Pediatrics 888, 889. See also, GAO, supra note 18, at 20; and AMA Rpt. Y, supra note 9, at 96.

[30] The concurring opinion below made clear that to avoid prosecution Ms. Johnson would have needed only to "avoid cocaine use during the last several days of her pregnancy." Slip op. at 2 (Cobb, J. concurring) As argued above this ignores the inability of drug dependent women to control their drug intake.

It should also be noted at this point that, contrary to the court's conclusion that Ms. Johnson either knew or should have known she was about to give birth, slip op. at 2, it cannot be (continued...)

Attempts to detect and prosecute drug use earlier would be no more effective. First, women could easily avoid detection by avoiding contact with medical providers. Moreover, the most critical period for normal embryonic development is the first eight weeks of pregnancy. During this period, teratogenesis, the development of physical malformations, is most likely to occur.[31] Because drug use alters the menstrual cycle, drug-using women may not realize that they are pregnant until well after this period of time.[32] Thus sanctions of any type, even if they had their desired deterrent effect, could not begin to influence maternal behavior until after damage may already have occurred.

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[30] (...continued)
expected that women will know to within 24-72 hours when they will deliver their child. Even medical experts are unable to precisely predict the date of delivery. First, estimated dates of delivery are typically calculated from the date of the pregnant woman's last menstrual period. However, the latter date is inaccurate in 20-40% of cases. D. Danforth & J. Scott, Obstetrics & Gynecology 263 (5th ed. 1986). Even when the last menstrual period is reported with accuracy, the predicted gestational age is inaccurate by at least 3 weeks in 15% of cases. Id. at 263. In one study, 25% of women delivered, as expected, 40 weeks after their last menstrual period. Another 37% of the women delivered one week earlier or later than predicted by their last menstrual period. Thus, 38% of the women delivered more than one week before or after the expected date of delivery. Saito, Yazawa, Hashiguchi, Kumasaka, Nichi & Kato, Time of Ovulation and Prolonged Pregnancy, 112 Am. J. Obstet. Gynecol. 31, 33 (fig. 1) (1972).

Although gestational age can be more accurately assessed through the use of ultrasound, there is no reason to believe that a poor woman like Ms. Johnson who received little prenatal care would have had access to this technology. Ms. Johnson had only one prenatal medical visit. RA, supra note 13, at 30. This makes it extremely likely that even the physician she saw could not have predicted with accuracy when she would deliver her child. It is not reasonable to assume that Ms. Johnson herself would have had this knowledge.

[31] AMA Rpt. Y, supra note 9, at 98.

[32] Id.; Chasnoff, Griffith, MacGregor, Dirkes & Burns, Temporal Patterns of Cocaine Use in Pregnancy, 261 J.A.M.A. 1741, 1743 (1989).

In addition, because pregnant women are unlikely to find drug treatment,[33] sanctions encourage unsupervised withdrawal, which might endanger fetal health. The potential complications to pregnancy caused by drug withdrawal are evidenced by the unwillingness of drug treatment programs not specialized in prenatal and obstetrical care to treat pregnant women.[34] In fact, withdrawal from some types of drugs, such as heroin, causes severe distress and is likely to harm the fetus more than would continued drug use.[35] Women should not, therefore, be indiscriminately encouraged to discontinue drug use while pregnant.

Protecting fetal health thus requires that women stop drug use early in pregnancy, and that withdrawal be initiated and carried out only with the advice and support of experienced medical providers. Neither of these outcomes is encouraged by a policy of prosecution. Moreover, both of these goals require that pregnant drug users become involved with medical providers. The policy of prosecuting women for drug use during pregnancy discourages this critical interaction with physicians.

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[33] See pp. 8-10, supra.

[34] See note 18, supra, and accompanying text.

[35] Ronkin, Fitzsimmons, Wapnes & Finnegan, Protecting Mother and Fetus from Narcotic Abuse, 31 Contemporary Ob/Gyn 178, 178 (1988).

IV. POTENTIAL PROSECUTION DISCOURAGES CONTACT AND COMMUNICATION WITH MEDICAL PROVIDERS. A POLICY OF PROSECUTION THEREFORE INCREASES HARM TO INFANTS.

The state's policy of prosecuting women for passing illicit substances to their infants at the time of birth requires substantial participation of the medical community. Physicians must order toxicology tests when drug abuse is suspected and report positive results to state authorities. This obligation to the state supersedes physicians' obligation to patients. Physicians cannot insure that they will maintain their patients' confidentiality or act in their patients' best interests. This undermines the physician-patient relationship and seriously interferes with physicians' ability to provide pregnant women with the medical services that are crucial for the health of both the mother and her future child.

Women who cannot avoid using drugs will seek to prevent detection by avoiding contact with physicians. It has already been documented that women who fear prosecution are avoiding prenatal care.[36] Many of these women see physicians for the first time when they deliver.[37] Some women even avoid hospital delivery services and subject themselves and their infants to the dangers of unsupervised home births.[38] Just as significantly, women who do seek care are unlikely to openly discuss their drug use with physicians if physicians are obligated to report drug use to state authorities. The lack of contact and open

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[36] GAO, supra note 18, at 9-10.
[37] AMA Rpt. Y, supra note 9, at 97.
[38] GAO, supra note 18, at 9-10.

communication with physicians increases harm to infants in several ways.

A. Safe and timely withdrawal from drugs requires contact and communication with medical providers.

As discussed above (§ 3), reducing harm to infants requires that drug use be discontinued early in pregnancy and that withdrawal be medically supervised. Neither of these can be accomplished if women are encouraged to avoid interaction with medical providers.

Moreover, even if women are in contact with physicians, their drug use is unlikely to be diagnosed and appropriately addressed if they are unwilling to discuss it openly. Drug use is one of the most commonly missed diagnoses in obstetric and pediatric medicine.[39] In most cases, a patient's drug use is not apparent if the patient does not disclose it. Because of their unreliability, drug tests alone cannot be relied upon to diagnose drug use.[40] It has been estimated, for example, that postnatal toxicology screens may miss up to 50% of infants exposed prenatally to drugs.[41] Cocaine use is particularly difficult to diagnose through testing. As noted above, cocaine metabolites can be detected through urinalysis for only 24 to 72 hours after ingestion of cocaine. This creates problems for diagnosis

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[39] Chasnoff, Drug Use in Pregnancy: Parameters of Risk, 35 The Pediatric Clinics of No. Am. 1043, 1410.

[40] AMA Rpt. Y, supra note 9, at 102.

[41] Lockwood, What's Known and What's Not Known About Drug-Exposed Infants, 11 Youth Law News 15, 15 (1990), citing Halfon, "Born Hooked," testimony before the U.S. Select Committee on Children, Youth, and Families (April 1989).

because unlike opiates or alcohol, cocaine is not generally used on a daily basis. Instead, use is characterized by episodic, prolonged high-intensity binges, which are interspersed with days of abstinence or low-intensity use.[42] Thus even the most chronic user will at times have no cocaine metabolites in her urine.

An environment of communication and trust is therefore crucial for preventing or reducing harm to drug-exposed infants. When physicians and patients work together, with a shared goal of achieving the best possible outcome for mother and child, outcomes are improved. There is evidence that with appropriate prenatal counseling, women will be motivated to reduce the impact of their addiction on their fetuses as much as is possible. One Philadelphia program, which treats pregnant heroine users with methadone maintenance, found that because of women's concern about the impact of methadone on their unborn fetuses, the women were able to reduce their methadone to relatively low doses.[43] Positive medical intervention is not possible, however, if doctors are required to participate in potential punitive action against women.

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[42] Gawin & Kleber, Abstinence Symptomology and Psychiatric Diagnosis in Cocaine Abusers: Clinical Observations, 43 Arch. Gen. Psychiatry, 107, 107 (1986).

[43] Finnegan, Connaughton, Emich & Wieland, Comprehensive Care of the Pregnant Addict and its Effect on Maternal and Infant Outcome, 1 Contemp. Drug Problems 795, 797 (1972).

B. Even if drug use is not discontinued, prenatal care can significantly reduce the risk of harm to infants.

It is also important not to deter pregnant women from seeking medical care because the negative health effects associated with prenatal drug exposure can be significantly reduced through adequate prenatal care and counseling, even if women do not discontinue their drug use. In fact, researchers are beginning to discover that many of the adverse outcomes seen in drug-exposed infants may be caused by socioeconomic and lifestyle factors associated with drug use rather than by drug use itself.[44] These associated factors may be causing an overestimation of cocaine's impact on perinatal and early childhood outcomes.[45]

Several risk factors are associated with drug use. First, the use of illicit substances is highly correlated with the use of licit substances such as alcohol and cigarettes.[46] In comparison to illicit substances such as cocaine, these licit substances can be as, if not more, dangerous to fetal health. Fetal alcohol syndrome is now the leading known cause of mental

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[44] Zuckerman & Bresnahan, Developmental and Behavioral Consequences of Prenatal Drug and Alcohol Exposure (accepted for publication in The Pediatric Clinics of No. Am., available from the Division of Developmental and Behavioral Pediatrics, Boston University School of Medicine) at 1-8; Chasnoff, supra note 39 at 1408-1410; and Cherukuri, Minkoff, Feldman, Parekh, & Glass, A Cohort Study of Alkaloidal Cocaine ("Crack") in Pregnancy, 72 Obstetrics and Gynecology 147, 150 (1988).

[45] Id.

[46] The correlation has been widely documented. See, e.g., Frank, supra note 29 at 892, Chasnoff, supra note 39, at 1408-1410; Weston, Ivins, Zuckerman, Jones, Lopez, Drug Exposed Babies: Research and Clinical Issues, 9 Zero to Three: Bulletin of the National Center for Clinical Infant Programs 1, 4 (1989); AMA Rpt. NNN, supra note 2, at 236, 248.

retardation in the Western World, exceeding both Down's syndrome and cerebral palsy.[47] Overall, fetal alcohol syndrome is one of the three leading causes of birth defects and the only one which is currently preventable.[48] The annual cost of treating only some of the disorders related to fetal alcohol syndrome is approximately 321 million dollars.[49] Similarly, cigarette smoking increases the likelihood of spontaneous abortion, premature birth, perinatal mortality, and low birth weight, and negatively affects later growth and development.[50]

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47 AMA Rpt. Y, _supra_ note 9, at 105.

48 AMA Rpt. NNN, _supra_ note 2, at 248.

49 AMA Rpt. Y, _supra_ note 9, at 105.

50 AMA, _Legal Interventions_, _supra_ note 8, at 2666; _See also_, _Getting Straight, Overcoming Treatment Barriers for Addicted Women and Their Children: Hearing Before the Select Committee on Children, Youth, and Families, House of Representatives_, 101st Cong., 2d Sess. (1990) (Fact Sheet at 7) [Hereinafter Fact Sheet, _Hearing_].

Note that these facts raise questions about the rationality of a policy which prosecutes women for the use of illicit substances. From the point of view of fetal health, illicit substances are not more dangerous than licit substances and the singling out of illicit substance users is therefore not justifiable. The use of licit substances during pregnancy is even more widespread then the use of crack and other illicit drugs. 34 of 56 million American women of childbearing age (15-44) use alcohol. In 1988, 30,000 infants suffered birth defects attributable to alcohol. (AMA Rpt. Y, _supra_ note 9 at 95.) As the California Medical Association has stated,

> A wide variety of acts or conditions on the part of the pregnant woman could pose some threat to her fetus, including failing to eat "well"; using nonprescription, prescription, or illegal drugs; exercising; not exercising; suffering physical harm due to accident or disease; working or living near possible toxic substances; smoking; drinking alcohol; engaging in sexual intercourse; ingesting caffeine; being overweight; being underweight; and residing at high altitudes. (Cited in English, _Prenatal Drug Exposure: Grounds for Mandatory Child Abuse Reports_?, 11 Youth Law News 3, 7 (1990).)

Another problem commonly associated with drug use and potentially harmful to infant health is poor nutrition. Studies have shown that drug using women have lower pregnancy weights and less weight gain during pregnancy than non-users.[51] Drug users are also more likely to suffer from anemia.[52]

Some drug-using women are also at risk of being exposed to sexually transmitted diseases including HIV.[53] In addition, cocaine can be injected intravenously, which greatly increases the chance of becoming infected with HIV through the use of a contaminated needle.[54] When women contract sexually transmitted diseases or HIV infection, their fetuses are also at risk.[55] Other risk factors associated with drug use include co-existing maternal mental illness, non-sexually transmitted infections such as hepatitis, and the possibility of inadvertent maternal overdose.[56]

Through prenatal care and counseling, women can come to understand the risk factors associated with drug use and be encouraged to reduce or avoid them. This would greatly reduce the risk of harm to infants. For example, low birth weight, a primary cause of infant mortality and disability as well as higher health care costs, is commonly associated with prenatal

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[51] Frank, _supra_ note 29, at 892.

[52] _Id._; AMA Rpt. Y, _supra_ note 9, at 97.

[53] AMA Rpt. Y, _supra_ note 9, at 101. _See also_, Fact Sheet, _Hearing_, _supra_ note 50 at 5, citing The National Institute of Drug Abuse, 1990.

[54] AMA Rpt. NNN, _supra_ note 2, at 247.

[55] Fact Sheet, _Hearing_, _supra_ note 50, at 7, citing The Centers for Disease Control, 1990.

[56] AMA Rpt. Y, _supra_ note 9, at 97; Lockwood, _supra_ note 41, at 16.

drug exposure.[57] One study has found, however, that while cocaine-exposed infants were on average 400 grams lighter at birth than non-exposed infants, only 25% of this difference was attributable to cocaine use itself. Among the factors responsible for the other 75% of the deficit were poor maternal nutrition and cigarette smoking.[58] In accordance with this finding, adequate prenatal care has been shown to reduce the incidence of low birth weight among drug-exposed infants by 18 to 50 percent,[59] and to significantly reduce the incidence of perinatal morbidity among cocaine-exposed infants.[60]

As with drug use itself, detection of these problems requires contact and open communication with medical providers. Prenatal care must be offered in an environment of cooperation and trust. Physicians cannot detect potential problems and provide counseling on their prevention if women are not able to be completely open about their lifestyles. With appropriate counseling and assistance, many women would be able to avoid additional risks to their infants even if they are unable to stop using drugs. Pregnant women who participated in a smoking cessation program at a Michigan WIC clinic, for example, were 3.6 times more likely to quit smoking than were nonparticipants.[61] Through its policy of prosecution, which discourages contact and

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57 GAO, supra note 18, at 38.

58 Zuckerman et. al., Effects of Maternal Marijuana and Cocaine Use on Fetal Growth, 320 New Eng. J. Med. 762, 767 (1989). See also Zuckerman, supra note 44, at 10.

59 GAO, supra note 18, at 38.

60 MacGregor, Keith, Bachicha & Chasnoff, Cocaine Abuse During Pregnancy: Correlation Between Prenatal Care and Perinatal Outcome, 74 Obstetrics and Gynecology 882, 884, (1989).

61 Fact Sheet, Hearing, supra note 50, at 6.

open communication with medical providers, the state is therefore contributing to the very outcomes it hopes to discourage.

Open communication with physicians regarding drug use is also necessary to insure safe deliveries. Narcotic analgesia and morphine are commonly administered to patients during labor and delivery. Women who abuse narcotics such as heroin or methadone are, therefore, at risk of overdose during labor and delivery if physicians are unaware of their drug use. If physicians are aware of maternal drug use, they can avoid these types of medication or carefully monitor their use during labor and delivery to prevent overdose.[62]

C. Positive contact with medical providers prenatally can contribute to postnatal infant health and development. Prosecution detracts from postnatal development.

Just as a variety of prenatal factors affect neonatal outcomes, postnatal factors affect the long-term developmental outcomes of drug-exposed infants. Like prenatal factors, postnatal factors may contribute to the harm associated with drug exposure. Research suggests that drug exposure and other prenatal risk factors create a "biologic vulnerability" which can be compensated for "by competent caretaking, but which renders the child more vulnerable to the effects of poor caretaking."[63] Drug-exposed infants who experience adequate parenting and a supportive environment will have better developmental outcomes than drug-exposed infants who experience neglect and other

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[62] Finnegan, supra note 43, at 798.
[63] Zuckerman, supra note 44, at 1-2.

stresses postnatally.[64] For example, prematurity, which is commonly associated with prenatal exposure to various substances, may cause neurologic immaturity and therefore lead to low IQ scores later in life. A study of neurologically immature infants, however, found that only those who had poor caretaking during their first two years had lower IQ scores. Neurologically immature infants who had responsive caretaking developed normal IQ scores.[65] Similarly, a study of opiate-exposed newborns found that postnatal environment was more important than the amount of maternal opiate use in determining developmental outcomes.[66]

Positive prenatal interaction with health care providers and the possibility it offers of bringing women into drug treatment is thus beneficial to the infant postnatally as well as prenatally. Even if drug treatment cannot be accomplished during pregnancy, the development of a positive alliance with health care providers makes it more likely that women can be brought into treatment later. Treatment experts concur that the motivation created by pregnancy offers a unique window of opportunity for positive intervention into the lives of drug-dependent women.[67] Maternal drug treatment, at whatever point possible, is necessary to the healthy development of her child because drug-dependent women may be unable to provide a

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[64] Chasnoff, supra note 39, at 1409-1410. See also, Weston, supra note 46, at 4.

[65] Zuckerman, supra note 44, at 4.

[66] Zuckerman, Drug Exposed Infants: Understanding the Medical Risk, 1 In The Future of Children 26, 34 (1991).

[67] AMA Rpt. Y, supra note 9, at 102.

supportive environment for their children's development unless they are able to overcome their addiction.[68] In addition, many drug-dependent women lack proper models for parenting and can be helped in their role as parents by positive intervention from the health care or social service community.[69] While successful intervention strategies for vulnerable children and their families exist, these cannot be implemented in an environment which drives women away from health and social service providers.[70]

Bringing women into drug treatment, whenever possible, is critical for the women's other children as well. In a 1986 survey, members of the National Council of Juvenile and Family Court Judges estimated that substance abuse among adults was a significant factor in 60-90% of the cases referred to their courts.[71] The unique opportunity for positive intervention during pregnancy should not be lost.

On the other hand, if mothers of drug-exposed infants are convicted and imprisoned, they will be unable to care for their infants or other children, and foster placement will be unavoidable. Lengthy temporary placements in foster care are extremely detrimental, especially for infants. Children in foster care are deprived of the opportunity to begin bonding with their mothers. In addition, child welfare agencies are not

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68 Zuckerman, supra note 66, at 34; and Krondstadt, Complex Developmental Issues of Prenatal Drug Exposure, 1 The Future of Children 36, 45 (1991).

69 Chasnoff, supra note 39, at 1409-1410.

70 Krondstadt, supra note 68, at 45.

71 Grimm, Drug Exposed Infants Pose New Problems for Juvenile Courts, 11 Youth Law News 9, 9 (1990).

equipped to provide substitute care. In many areas there are not enough foster parents even for healthy children, and fewer still who are trained to provide the kind of specialized care required by some drug-exposed infants. This means that children may either be placed in unqualified homes which might cause permanent harm, or be left as "boarder babies" in hospitals and other inappropriate long term shelters.[72]

The discontinuity brought about by temporary foster placement can be devastating for children's psychological development. Some psychologists contend, in fact, that continuity of care is so important that not even the infliction of serious emotional harm justifies removing children from their homes.[73] Some studies suggest that children reared without permanent parental relationships may have higher levels of language retardation and diminished mental development, as well as higher rates of delinquency. Several serious personality disorders also correlate with multiple separations from parental figures.[74] One study has found that homelessness during adulthood is correlated with having been in foster care as a child.[75]

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72 Id. at 12.
73 Goldstein, Freud & Solnit, Before the Best Interests of the Child, 75-90 (1979) See also, Goldstein, Freud, & Solnit, Beyond the Best Interests of the Child 99 (2d ed. 1981).
74 Garrison, Why Terminate Parental Rights?, 35 Stan. L. Rev. 423, 458 (1983).
75 Sosin, Colsin, Grossman, Homelessness in Chicago: Poverty and Pathology, Social Institutions and Social Change 59-61 (1988).

CONCLUSION

Accordingly, amici respectfully request that this court reverse the lower court's decision and remand with an order to vacate Ms. Johnson's convictions.

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I HEREBY CERTIFY that two true and correct copies of the foregoing have been sent by first class mail, postage prepaid, this 2nd day of July, 1991, to:

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