

West Virginia Perinatal Wellness Study

Key Informant Survey Report

Purpose:

The purpose of the West Virginia Key Informant Survey was to gain the input of West Virginia medical, nursing and other personnel serving pregnant women and their newborn infants. An essential element of the West Virginia Perinatal Wellness Study, the survey sought opinions and experience regarding why West Virginia has not made progress toward the reduction of infant mortality and low birth weight, as the rest of the nation has done. The survey method was intended to reach those practicing in rural areas of the state, as well as urban areas. It gave West Virginia medical and nursing personnel not able to participate in the Study Summit, the opportunity to apply their expert opinions and experiences to these issues. The survey findings are being provided to those attending the West Virginia Perinatal Wellness Summit on May 18, 2006, and will be posted on the WV Healthy Kids and Families web site by the end of May, at www.wvhealthykids.org.

Method:

The West Virginia Key Informant Survey was conducted from March 21, 2006 through May 2, 2006. The survey tool contained two open ended questions with the intent to gain the experience and opinions of health professionals regarding 1) health and health care concerns related to the State's continuing high rate of infant mortality; and 2) potential solutions that should be considered to help reverse the poor trend in infant mortality. The survey tool was distributed and the completed surveys collected by a variety of methods, including U.S. Postal Service, web site posting, fax, and e-mail. Completed surveys were faxed or e-mailed to tolliver2@verizon.net, or mailed to the WV Community Voices office in Charleston. Only surveys that contained the respondent's names and contact information were considered completed responses and counted in the total. Only respondents that agreed for their opinion to be quoted are credited for their comments. Opinions of responders asking not to be quoted may appear in this report although their names do not.

Professional Association Assistance:

The survey was conducted with the assistance of the following professional associations.

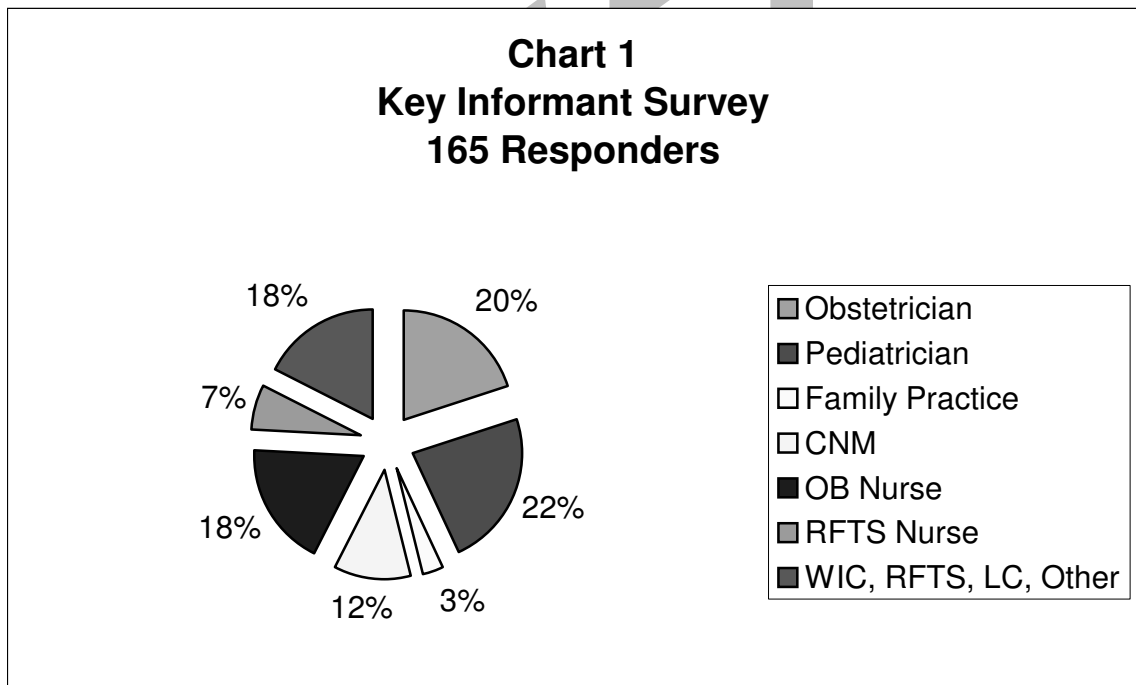
- The American Academy of Pediatrics – West Virginia Chapter
- The American College of Obstetricians and Gynecologist - National and West Virginia Chapters
- The American College of Nurse Midwifery – West Virginia Chapter
- The West Virginia Hospital Association
- The West Virginia State Medical Association

Respondents:

One hundred and sixty-five health professionals' responses were submitted complete and in time to be included in this report. Close to 200 responses were received, but were either not complete with respondents name or arrived after the deadline.

Who Are the Responders

Responders to the survey include the following categories of health care providers. Pediatricians including neo-natalogist-22%, Obstetrician-Gynecologist including peri-natalogist –20%, Family Physicians - 3%, Certified Nurse Midwives – 12%, Obstetrical Nurses – 18 %, Right From The Start (RFTS) Nurses – 7%, WIC- RFTS Workers, Lactation Consultants, Douulas, and all others – 18%. Chart 1 below shows the percentage break out of respondents. In reporting the findings, RFTS nurses are not reported as a separate category.



As part of the WV Perinatal Wellness Study, Ann Dacey, RN, Co-Director of the Study conducted an extensive phone survey and birth certificate review to identify providers delivering babies during the current time period of 2006. Her study is included within this WV Perinatal Wellness Study Packet and is called Obstetrical Providers Study1991-2006. The phone survey identified 145 Obstetricians, 41 Certified Nurse Midwives, and 19 Family Practice physicians who are currently delivering infants within hospitals and birthing centers in West Virginia.

The Key Informant Survey generated responses from 28% of the obstetricians practicing in 2006, 46% of the certified nurse midwives practicing in 2006, and 26% of the family

practice physicians. At the same time, 19% of the pediatricians that were surveyed responded.

Provider Type	Number Delivering In 2006	Number on Distribution List	Number Responding to Survey	Percentage Survey Respondents to Providers
Ob/gyn	145		33	28%
CNM	41		19	46%
FP	19		5	26%
ER	0		2	
PED	0	198	38	19%

Obstetrical hospital nurses and nurse managers were also important responders to the survey. Nurses representing twenty-one of the 32 hospitals and 2 birthing centers reporting births in the State during 2006 responded to the survey. This is a 62% response rate for hospital and birth center nurses.

Other key responders include the Right From the Start nurses and social workers, and WIC nutritionists, registered dietitians, and lactation consultants. These professionals offer important insights as they work daily with pregnant women and their families specifically to improve outcomes.

Health Professionals from thirty-four West Virginia counties and from four adjoining States responded to the Key Informant Survey. The four States include Kentucky, Maryland, Ohio, and Pennsylvania. WV counties represented in the responses follow.

Berkeley, Brooke, Cabell, Calhoun, Doddridge, Fayette, Grant, Greenbrier, Harrison, Jackson, Kanawha, Lewis, Lincoln, Marion, Marshall, Mason, Mercer, Mingo, Monongalia, Monroe, Ohio, Pocahontas, Preston, Putnam, Raleigh, Randolph, Roane, Taylor, Tucker, Upshur, Wayne, Wetzel, Wood, Wyoming,

Findings:

Question 1 of the Key Informant Survey asked health professionals to identify at least one health or health care related concern that contributes to West Virginia’s continuing high rate of infant mortality. The original survey phrase “contributes to West Virginia’s continuing increase in infant mortality” was changed for subsequent distributions to accurately reflect what the West Virginia vital statistics data represents, the “continuing high rate of infant mortality”. Responders frequently provided additional clarification for their major concerns. This report also attempts

to reflect some of the most frequently expressed opinions through quotes from responders.

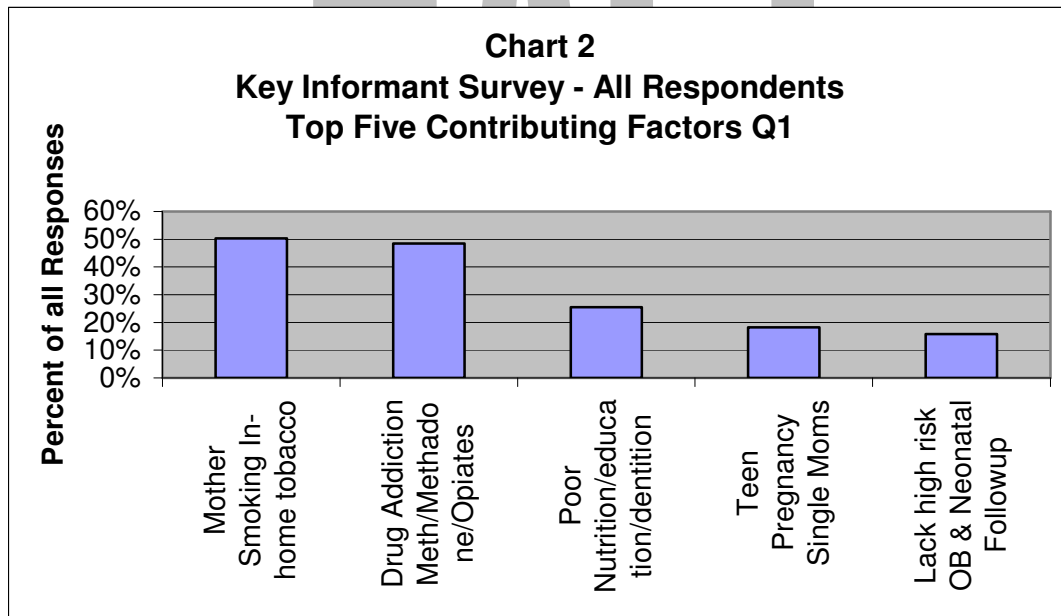
The findings are reported in three sections. First, the most commonly reported contributors are grouped to represent topic areas, and are reported as totals of all responders. Second, the most commonly reported contributors are reported by professional responders categories. This section reports contributors broken into more details than the combined groupings in section I. The third section is a report of responses to Question 2, which asked for potential solutions to be considered.

The last section of this report is a listing of potential policy implications identified specifically by responders or by virtue of the frequency and importance of responses.

I. Most Commonly Reported Contributors by All Responders

By far, the most frequently noted health and health care concerns by responding health professionals are behavioral characteristics of the pregnant women and their families. Half or almost half of all responders to the Key Informant Survey mentioned two concerns most frequently, smoking and drug use.

Chart 2 demonstrates the five most frequent responses to Question 1.



1. Smoking during pregnancy and in-home smoking by other family members was noted by 50% of the respondents and identified as a causing factor for low birth weight and illness of infants after birth. There was a strong call for greater attention to smoking cessation during pregnancy and not for just a reduction in tobacco use. Some respondents went so far as to recommend that insurance

carriers, including Medicaid and PEIA, provide mandatory smoking cessation programs for their pregnant populations.

Grafton, RFTS Nurse-RN, Patricia Delaney

“Smoking by moms-to-be is an obvious reason. I feel that the intellect of the moms-to-be and their life situation may be a bigger factor—their age, family members had babies at a young age, their own mothers were young with babies, and they know no other way of life...and the poverty that goes with it as well as what they view as important.”

2. Legal and illegal drug use during and after pregnancy, including street drugs, opiates, methamphetamine, and methadone was noted by 45% of the respondents. A few health professionals mentioned alcohol. The biggest surprise of this survey was the high number of health professionals from all parts of the State that complained about the growing use of legal and illegal drugs by women during pregnancy and after. Notes from health professionals, especially pediatricians, frequently correlated child neglect with drug use.

Some respondents mentioned that legal responsibilities surrounding testing for drugs during pregnancy are not clear. Many also voiced concern that testing for drugs might scare women away from care and pose greater medical problems for them and their infants. Many mentioned a need for more addiction treatment facilities for pregnant women. Several voiced concern about methadone treatment for pregnant women, indicating associated medical problems arise during pregnancy (such as placenta abruption) and with the newborn. Some indicated that there does not appear to be any incentive to getting off methadone. There is a perception that many people stay on methadone for the long haul and that this is not a positive approach toward good health.

Steubenville, Ohio Obstetrician-MD, John Holman

“Changes in socio-economic status, combined with an increasing drug culture and resultant failure of compliance (*with medical advice*) associated.”

3. Poor maternal nutrition and a lack of nutrition education were cited primarily by obstetricians, CNM’s, and WIC nutritionists as leading to a rise in obesity, gestational diabetes, type II diabetes, and pre-eclampsia.

Pediatricians and nutritionists addressed the lack of breastfeeding and lack of support for continued breastfeeding as a contributor to poor infant health. Several suggested that all hospitals in state should adhere to guidelines of the American

Association of Pediatrics regarding support for establishing breastfeeding, both for healthy newborns and for high-risk newborns.

In all, 24% of respondents identified poor nutrition, lack of nutrition education, and lack of breastfeeding and breastfeeding support as a contributor to poor outcomes.

4. “Teen pregnancy” and “single moms” were reported as contributing to infant mortality by 18% of respondents. Throughout the responses, teen pregnancy was linked with a lack of sex education in schools, lack of education regarding contraception, closely spaced pregnancies, smoking, inadequate parenting skills, poor hygiene, poor nutrition habits prior to and continuing in pregnancy, and over all poor health habits.

Glendale, Pediatrician-MD, Sunila Mehrotra

Education in school and to parents of teenage girls (to teach them)...not to get pregnant till (they) graduate from high school. Kids are having kids.

5. Lack of high risk obstetrical services, lack of a fully operational statewide regional perinatal care program, lack of certain newborn screening, and lack of high-risk new born follow-up (especially in rural areas) were also noted by respondents. A number of physicians and hospital nurses focused on lack of consistent standards for the induction and delivery of late preterm infants (34-37 weeks). Voluntarily inducing labor that produces preterm infants was identified as a major provider issue that contributes to higher use of NICU beds and infant mortality. Several physicians and nurses noted the “malpractice crises” and cost of liability coverage as hindrances to keeping and attracting obstetrical providers. Several hospital nurses from smaller hospitals noted the lack of high risk support from tertiary care facilities, the loss of community hospital based continuing education on high risk care, and the lack of availability of NICU beds in State when needing to transfer.

Lewisburg, Family Practice Nurse Practitioner – Peds Clinic-MSN, Jill Cochran
Small hospitals have little support from larger neonatal centers.

Morgantown, Neonatal Nurse-MSN, Barbara Nightengale

Lack of support for funding increase in neonatal care results in infants having to leave the state for care.

Petersburg, Pediatrician-MD, Fernando Indacochea

Limited neonatal screening is an issue. Some mortality is attributable to undiagnosed genetic metabolic disorders, such as, MCACoADD and related disorders prevalent in WV.

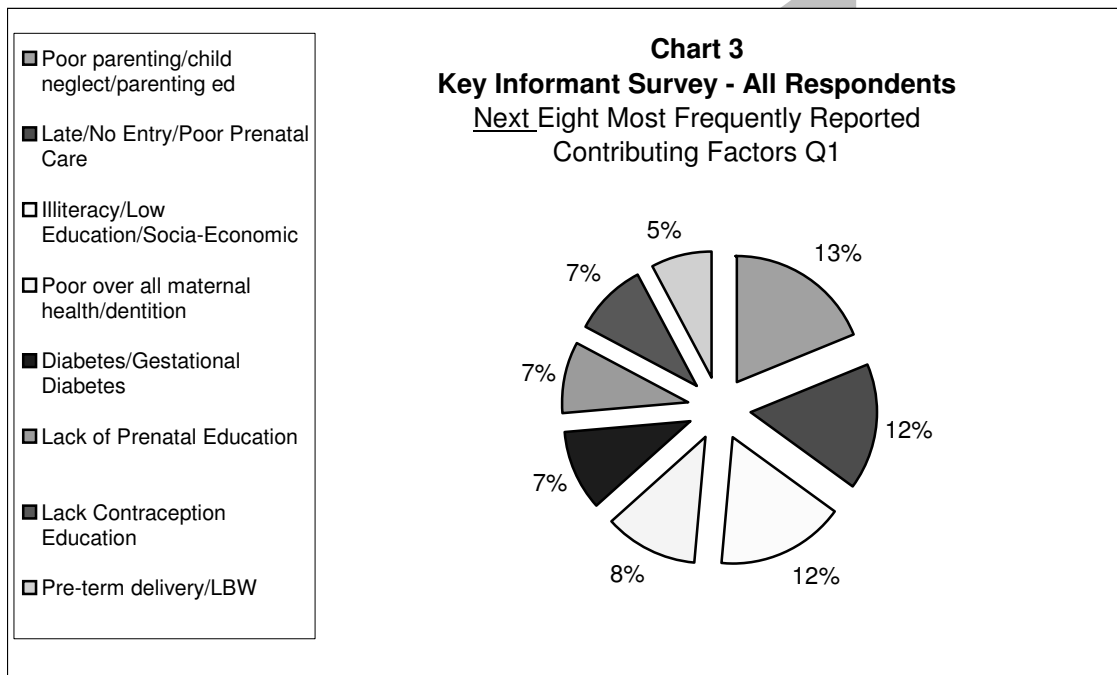
Morgantown, Neonatology-MD, Janet Graeber

The induction and delivery of late preterm infants between 34-37 weeks gestation contributes to infant mortality based on information elsewhere that the infant mortality rate in this group is almost double that for infant born after 37 weeks. This is the largest group of preterm infants making up about 70% of preterm births.

Lewisburg, Obstetrician-DO, Lori Tucker

Standards of care in rural settings are not consistent with national standards of care. Physicians are choosing to not do antepartum testing for patients who are high risk.....older physicians are often unwilling to change with ACOG's ever changing guidelines.....

Chart 3 illustrates the break out of the next eight most frequently reported contributing contributors as identified by all the respondents.



6. Poor parenting, lack of parenting education, and child neglect were identified as contributing to infant mortality. Most frequently these issues were tied to teen pregnancy, single parenthood, lack of high school education, and lack of referral to the Right From the Start Program. Several health providers responded about the RFTS program. Most responders noted the positive effects the program has on infant outcome. Several reported that the program needs to be more widely advertised and that physicians, midwives, and others should refer into the RFTS early in the pregnancy. One physician mentioned that there appears to be a lack of consistency in the RFTS program and differences is the skill quality of the RFTS providers from region to region. One nurse clinical coordinator providing follow-up for NICU infants and their mothers noted that only infants covered by Medicaid can take advantage of this RFTS follow up in-home care. Infants covered by private insurance need this follow-up as well, she said, but private insurance does not pay for this service.

Ripley, Ob-Nurse-RN, Jane Rawlings

We have some wonderful programs (Right From The Start, WIC) of which patients aren't made aware.

excellent job getting mothers into care early in the pregnancy, many physicians are still reporting concerns over late entry to care as a major concern. Some professionals expressed concern that pregnant women are waiting to have their insurance card or Medicaid in hand prior to making their first appointment for care. Others indicate that there are still just not enough obstetrical health providers in areas accessible to many women. Some indicate that once a woman calls for the first prenatal appointment there may be several weeks before providers' schedules can fit in a new patient. Numerous responders talked about the need to address the high cost of malpractice coverage.

Weston, Obstetrician-MD

Of concern is the lack of perinatal care in close proximity to patients and lack of availability of 24-hour anesthesia coverage in hospital at all times. More Ob/Gyn physicians are needed in the State. And, we need to solve the malpractice crisis.

Grantsville, Pediatrician-MD, Chadwick Smith

Continued poor access to prenatal care still tops the list. My county has no obstetrical care available. We have no birthing center and this leads to decreased women with care.

8. Illiteracy, low education, and socio-economic conditions were mentioned as a concern by 12 % of the respondents.

Princeton, Pediatrician-MD, Anjum Rana

Lack of education for parents regarding the care of babies-to-be born, newborns and infants is a concern. There is little knowledge for the prevention of common cold and like RSV, etc. There is carelessness to seek antenatal care regularly.

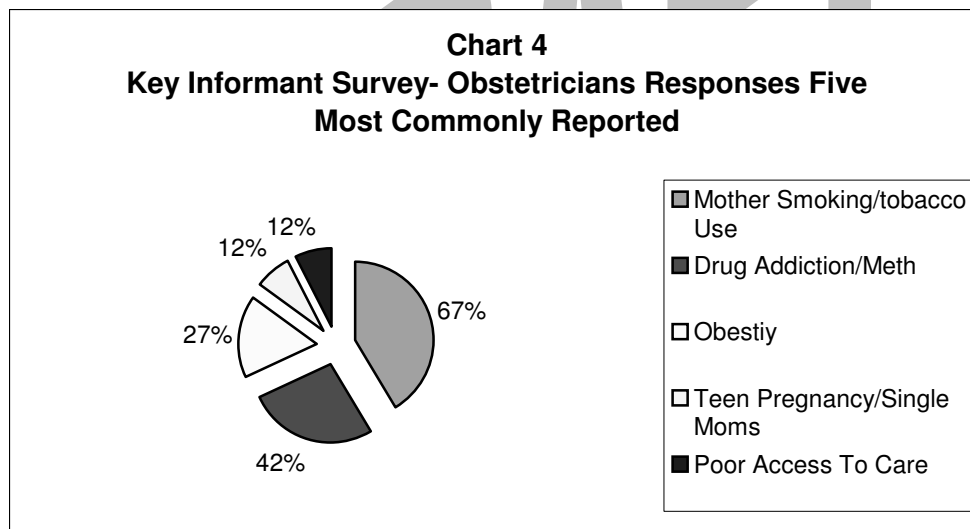
II. Diversity of Experiences May Bring Wealth of Potential Solutions

Looking at the difference in experiences and opinions among responding health professionals demonstrates the value of bringing this diversity together to work for improvements. Different work environments allow providers to see patients from different perspectives than other professionals.

It is clear that the majority of respondents agree that maternal smoking and in-home smoking pose a major problem for pregnant women and their infants. Obstetricians rank smoking as the number one contributor and illegal and legal drug use and addiction as number two. Pediatricians, certified nurse midwives and ob nurses reported legal and illegal drug use and addiction more frequently than smoking, although both are, by far, the most frequently reported conditions impacting infant mortality than any others.

Obstetricians

Obstetricians rank obesity as the third most reported condition, and then teen pregnancy and single parenthood, and poor access to care as the fourth and fifth most commonly reported conditions. [Chart 4](#) demonstrates the five most frequently reported conditions impacting infant mortality as reported by the 33 obstetricians responding to the survey.

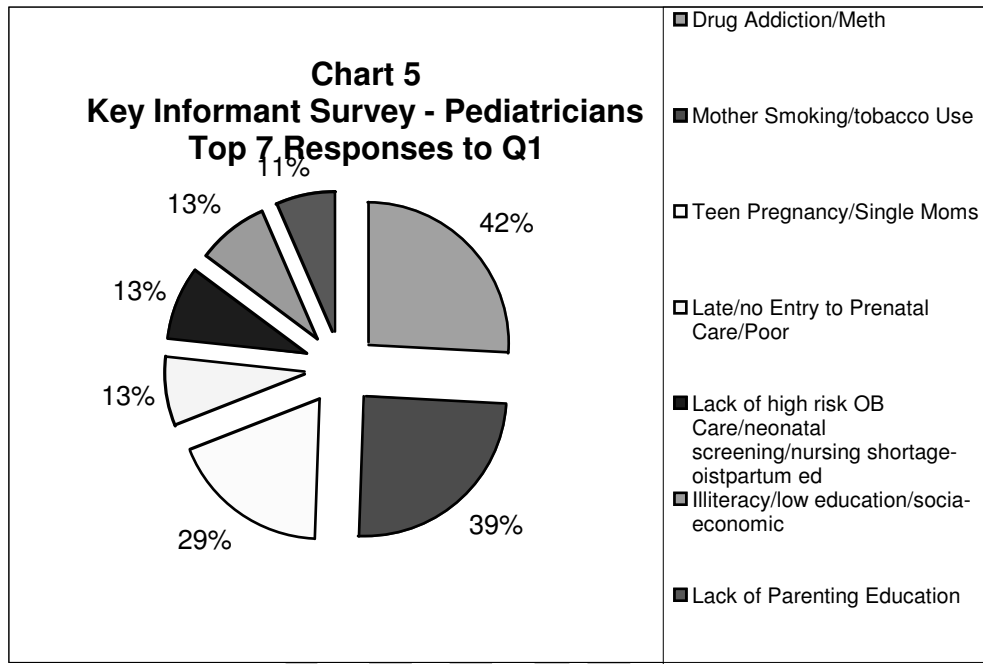


Pediatricians

Thirty-eight pediatricians, including three neo-natologists, responded to the survey from around the state. Like obstetricians, they ranked drug use, addiction and smoking as the two most common contributors. Teen pregnancy and single parenthood are the third most often reported conditions. From the pediatrician's perspective, lacks of prenatal care and lack of high-risk obstetrical care are important concerns. Most often the lack of prenatal care was attributed to not enough obstetrical providers in areas easily accessible to pregnant women.

Illiteracy and low education are reported sixth most often by pediatricians. Next, they identify a lack of prenatal and of parenting education as important contributors. [Chart 5](#)

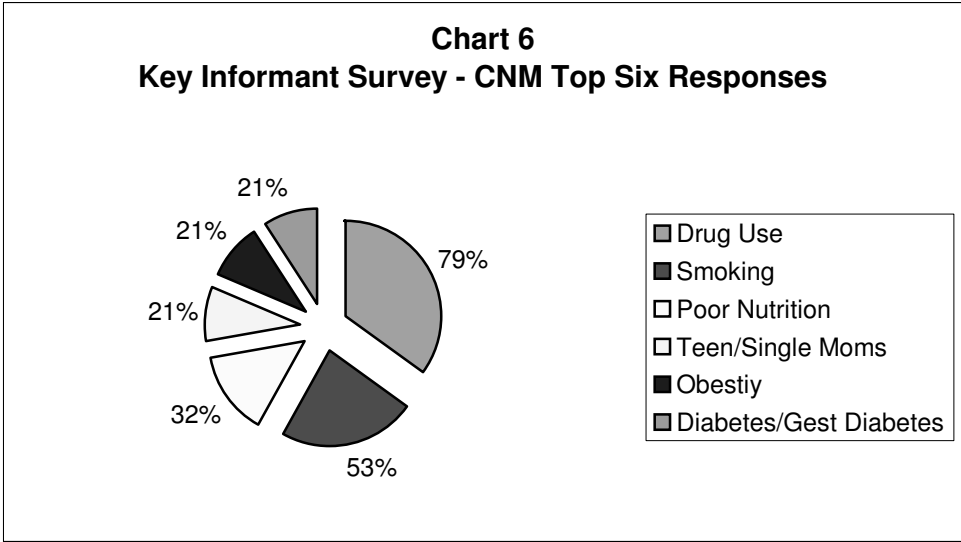
identifies the number of pediatricians reporting each of the top eight contributing factors to infant mortality in West Virginia.



Certified Nurse Midwives

Certified nurse midwives have become important obstetrical care providers in West Virginia. Currently, there are 41 CNMs providing obstetrical care within the hospitals and birthing centers in the State. This increase in CNMs did not occur by luck. Concerted efforts by State government, hospitals, and private providers to increase the number of CNMs helped this State gain this valuable resource over the past 20 years.

Like obstetricians and pediatricians, CNMs identify drug use and addiction and smoking as important contributors to infant mortality. Thirty-two percent of the CNMs then identify poor nutrition and a lack of nutrition education as a contributing factor. Twenty-one percent of CNMs identified teen pregnancy, single parenthood, obesity, diabetes, and gestational diabetes as contributing factors.



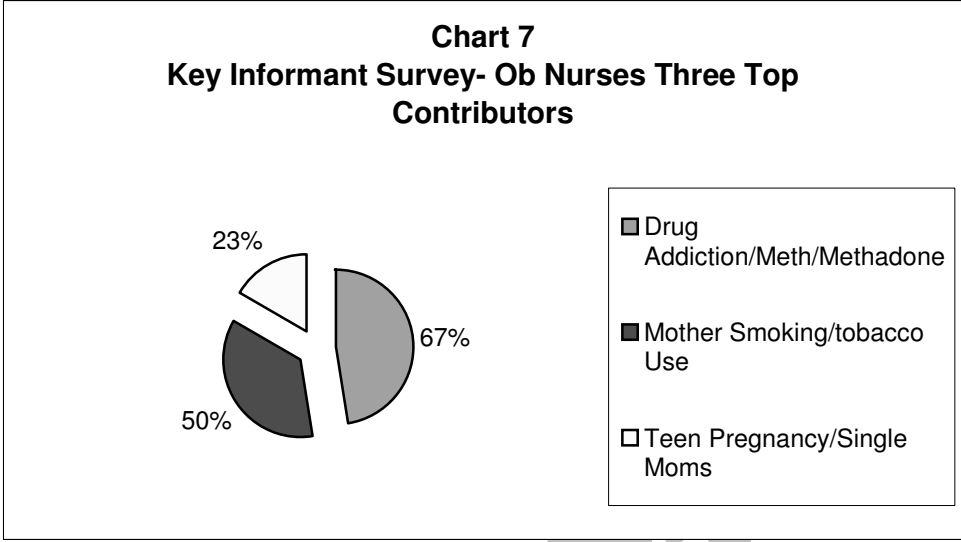
Family Physicians

Family physicians account for a small number of obstetrical providers in the State. They are important as generally, they are providing care in rural areas where little obstetrical care is available. A total of five family physicians offering obstetrical care responded to the survey. Each reported a different contributor to infant mortality.

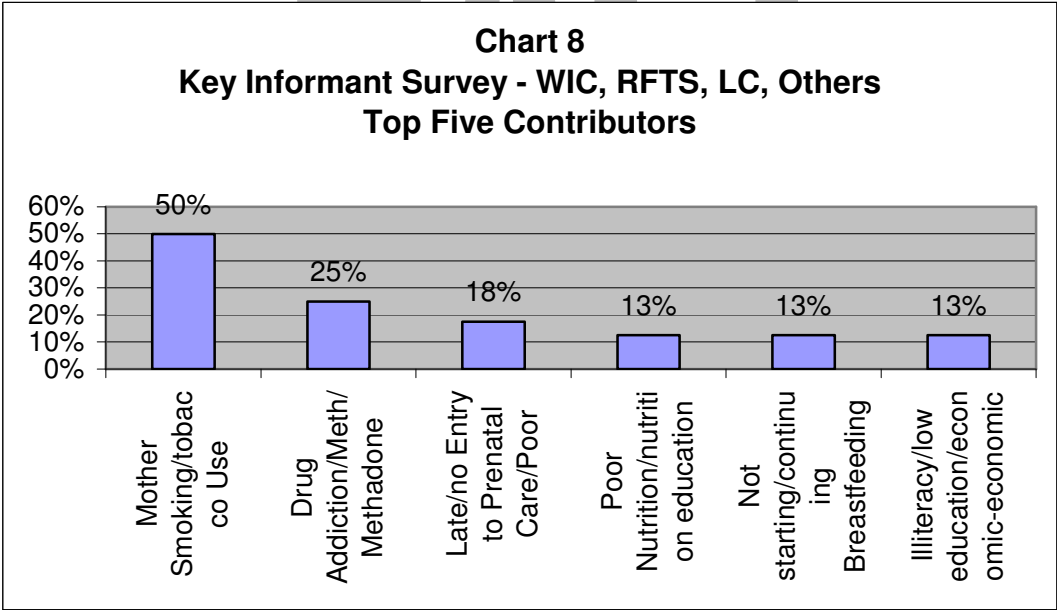
Family Physicians Responses to Q 1	Number Reporting
Teen/Single Mother	1
Smoking	1
Low Education/Socio-economic	1
Late/no/Poor Prenatal Care	1
Access To Care	1
Liability Coverage	1

Obstetrical Nurses

Sixty-seven percent of the obstetrical nurses responding, primarily working in hospitals and birthing centers, report drug use smoking and teen pregnancy and single parenthood as the three primary conditions affecting infant mortality. Obstetrical nurses also mentioned a lack of drug treatment facilities for pregnant women. In speaking of teens and single moms, obstetrical nurse reported a need to be able to do parenting education prior to mothers and infants being discharged from the hospital, but noted that there is a serious lack of time to be able to accomplish the teaching.



WIC, RFTS, Lactation Consultants, and all Others



A WIC nutritionist, lactation consultants, RFTS nurses, social workers and all others reports are captured in combined data shown in Chart 8. Of the top two contributors chosen by all other health care workers, fifty percent (50%) of this group also identifies smoking and twenty-five (25%) of the group identifies drug use and addiction. Poor nutrition and lack of nutrition education is identified by 13% of this group as a factor in infant mortality. Lack of breastfeeding and lack of continuing

breastfeeding is identified by 13% of this group. This group also identified obesity and gestational diabetes as key factors.

III. Key Informant Survey-Responses To Question 2

Reported here are quotes from responders to the Key Informant Survey. This section is an attempt to capture the most commonly expressed opinions of health care providers regarding potential solutions that should be considered to help reverse the State's poor trend in infant mortality. Not all expressed opinions are included here. Only surveys that contained the respondents' names and contact information were considered completed responses and counted in the total. Only respondents that agreed for their opinion to be quoted are credited for their comments. Opinions of responders asking not to be quoted may appear in this report although their names do not.

Question 2. Please list one or more potential solutions that should be considered to help to reverse the State's poor trend in infant mortality.

Princeton, Physician

- *Lack of education of parents regarding the care of babies to be born, newborns, and infants. Little knowledge for the prevention of common cold diseases like RSV*
- *Carelessness to seek antenatal care regularly.*
- *Availability of specialty Trained staff (nurses and doctors) for care of complicated cases, at or around birth, within reason.*
- *"Prevention is better than care". Healthy body has a sound mind. Parents with healthy and sound minds will make the right decisions about healthy babies.*

Martinsburg, CNM, Stephanie Nicodemus, Shenandoah Women's Health

- *A strong, state-wide education program toward healthy lifestyles (including smoking cessation, proper nutrition and avoidance of illegal drugs.)*
- *Increasing midwifery care throughout the state could help accomplish this!*
- *Also important is a statewide system for drug rehabilitation for a pregnant woman that also supports her postpartum.*

Morgantown, CNM, Betsy Miller

- *West Virginia has an increasingly obese population which means there are more pregnant women who are obese and at greater risk for hypertension, diabetes, and complications of delivery.*
- *Depression. More and more young women in my practice show classic signs of depression, which makes it harder for them to cope well with their pregnancies and with their newborns.*
- *The problems listed above stem more from social issues rather than medical issues. Young women need self-esteem building programs. They need programs that offer them practical skills for desirable jobs. They need better child care options.*

They need to be educated about better food choices and have resources for buying healthier products. They need support systems that help motivate them and reason to believe that change is possible and rewarding.

Ranson, CNM, MSN, Linda Keeling

- *By educating our communities - in the school system, at home, in churches - we can empower our state's women to make better/ more healthy choices. It starts one patient at time. We as health care providers should be role models, mentors, and trusted caregivers to our patients in partnering for better health. If we can improve the health of our state's women, we can improve the health of our communities and our state.*

Murraysville, MSN, CNM, CFNP, Karen Fahey

- *Smoking cessation programs.*

Clarksburg CNM, MSN, FACCE

- *I believe that the increased use of certified nurse-midwives, with physicians collaborating to provide high-risk care, would be a wiser use of health dollars. The CNMs need to have health care sites in more rural areas, even if sending the patients to physicians and centralized hospitals for delivery. Women need to spend less time on the road traveling to providers, and more time in the office visiting with their provider. Healthy moms and babies should be given the option of using birth centers (of which WV has one free standing center) as an alternative to home birth or hospital birth.*

Culloden, CNM, Martha Carter

- *Greater use of nurse midwives for prenatal care.*

Winfield, Pediatrician-MD, Joan Phillips

- *Mothers need education about Methadone and need to be off before pregnancy-I think they feel that it is safe and the Methadone Clinics are in no hurry to wean people because of the profit.*

Lewisburg, Pediatrician- O, FAAP, FACOP, Patricia Lally

- *Identification of regional health center(s) that define a clear referral center relationship for smaller rural hospitals enabling them to consult with and/or refer to for problems more appropriately cared for in a tertiary care setting (level II or III nursery).*
- *Development and fostering the relationship between the larger centers and the smaller outlying institutions through increased communication before and after a transport, and ongoing education between centers and outreach education.*
- *Increased staffing and transport services.*

Morgantown, Pediatrician-MD, Neelam Konnur

- *Education.*
- *Tracking and supporting pregnancies through state dollars.*

- *In home nurse visits after birth at least twice, especially for first time mothers.*
- *Extensive support for the first time breast-feeding mother/family.*

Charleston, MD, Dean SOM-Charleston, Clark Hansbarger

- *“All out” community-based, statewide information on “value of children.”*

Charleston, PhD, RN, FAAN, WVU School of Nursing, Cynthia Persily

- *While smoking cessation plans for pregnancy exist, my research has shown that the incidence of smoking is correlated in a rural population of pregnant women, to other stressors--e.g. single parenthood, other children in the home, living below poverty level, domestic violence, etc. I would suggest that smoking cessation only deals with the act of smoking, and does not holistically address the root cause of smoking--other stressors. Therefore, I would recommend that comprehensive stress reduction plans be supported and promoted, so that all maternal health habits, including smoking, alcohol use, illicit drug use, poor nutrition, can be impacted.*

Cross Lanes, RN, MSN Sandra Young

- *Drug addiction/abuse during pregnancy and during the infancy of the child.*

Charleston, MD, Surgeon,

- *Public education on birth control and prenatal care.*

Morgantown, OB Nurse, RN, IBCLC, CCE, Tina Lindsay

- *More education in a new, fun, user-friendly way. Many young mothers think watching the baby TV shows equips them for parenthood. All childbirth educators have seen a decrease in class attendance. Therefore, more work must be done in the post partum period, with the use of childbirth educators and a lactation consultant. More time could be spent on teaching the art of caring for a newborn and other Nurses could then focus on other ob requirements.*

Fairmont, Director of Nursing, Michelle Ferris

- *Birth control education in schools.*

Proctorville, Ohio, LD, IBCLC, Jan Wilkes

- *More education in schools -- parenting classes, sex education, more rural OB doctors.*

Charleston, MD, Ramona Davidson-Dagostine

- *Less smoking.*
- *More mothers breastfeeding and continuing for a minimum of six months.*

Wheeling, CFNP, Shawn Core

- *Make tobacco cessation during pregnancy mandatory. Provide mothers affordable alternatives for smoking cessation.*

- *Require WIC to provide better diet choices. Make dietary consult with a licensed dietician a priority.*

Parkersburg, MD-OB-GYN, Heather Irvin

- *Penalties in Medicaid coverage if they do not attend their routine prenatal visits.*

Huntington, MD- OB-GYN, Brenda Dawley

- *Decrease female smoking rates.*

Huntington, Ob. and Maternal Fetal Specialist, MD, Shailini Singh

- *Smoking cessation programs.*
- *Diabetes and obesity prevention programs.*
- *Access to prenatal care.*

Charleston, OB-GYN, Janeen Masker

- *Increase awareness of Right From the Start Services.*

Huntington, OB-GYN

- *Meaningful tort reform. The recent tort reform has resulted in fewer suits being filed, but concerns about large award for non-economic damages has not significantly lowered liability premiums.*
- *Payment to physicians through Medicaid and PEIA that is realistic. With the current fee schedule, physicians often are not able to cover their costs, thus they limit the numbers of these patients in their practice, leading to an access problem.*

Morgantown, OB-GYN-MD, Michael Stitely

- *Overall reduction in tobacco use.*
- *Having the availability of treatment on both an inpatient and outpatient basis for substance abuse for Medicaid patients.*

Scarbro, CNM

- *Education, education, education. Provide health education outreach workers to families, and place health educators at OB provider sites as part of the OB process to help families meet basic needs, understand pregnancy self-care and make a process for family planning a priority.*

Princeton, Ob-Gyn-DO, Lori Tucker

- *A statewide Ob-Gyn consortium to assure that WV physicians are practicing (by) standards of care. Standards of care need to be in place. This would decrease malpractice over time, and malpractice rates.*
- *Community hospitals need to be accountable for lack of standards of care. Quality control nurses often have no obstetrical background and need outside peer review to avoid continuance of poor standards of care.*
- *Decrease malpractice rates.*

- *Recruit perinatologist to CAMC, WVU, Marshall.*
- *Pediatricians need to be able to incubate/ventilate preemies. 34-week babies shouldn't die.*
- *Lay midwives have no governing body to assure quality control. Many states have implemented this.*

Inwood, CNM- RN, BSN, MSN, Lori Goforth

- *It seems that many issues need to be addressed by general public education/awareness campaigns. The approach should probably be multifaceted in many media forms.*
- *I continue to be amazed at the large number of women that arrive to the hospital to deliver their child who state that they have not received prenatal care because of financial issues. West Virginia has several excellent programs for women during pregnancy that people are unaware exist. The issues will be how to effectively convey these available options to women/families.*
- *In addition another route to improve the mortality would be to provide low cost educational opportunities for providers possibly even at remote sites via internet or teleconference. The purpose of this education would be to update the providers on new issues and management strategies.*
- *Some of the issues like Methadone use in pregnancy were not adequately addressed during our training and specifics on how to best treat/care for these women/children would be very beneficial. If these could be accessed from our local sites, this would increase the availability of my staff to attend as it is very difficult to have more than one person out of the office at a time and for us to attend training in the Charleston area is very time consuming due to driving times.*

Charleston, Pediatrician, MD, Happy Verma

- *Educating teenagers regarding the importance of birth control.*
- *Making them aware of the consequences of drug and alcohol abuse before and during pregnancy.*
- *Classes and support groups for pregnant teen young mothers.*

Morgantown, Neonatologist-MD, Janet Graeber

- *Look at the incidence of late preterms in West Virginia and their contribution to infant mortality here. Engage obstetricians in a review of the criteria for early delivery at 34-37 weeks to minimize early delivery, increased LOS and potential contribution to infant mortality.*
- *Encourage the testing of lung maturity before delivery of the non-emergent infant of a diabetic mother among WV obstetricians. Emphasize diabetic control prenatally in the diabetic pregnant woman.*
- *Establish public health programs to control obesity in young women. help control gestational diabetes and possibly pre-eclampsia.*
- *Provide access to effective breast pumps and education for mothers of preterm infants.*
- *Develop a statewide perinatal transport system.*

Hurricane, International Board Certified Lactation Consultant, Tina Mullins

- *Funding to educate West Virginia on the risks of not breastfeeding.*
- *Making it a priority to have LCs in all the hospitals that deliver babies. There should be 1 LC per every 1,000 births.*
- *We need to have every health care provider who works with prenatal or postpartum women to promote, encourage, and manage breastfeeding for the client/patient. LCs are here to provide special assistance when needed.*

Morgantown, OB/GYN Nurse Practitioner/Certified High Risk Perinatal Nurse, Donna Dorinzi

- *Development of program to help fund dental care for pregnant women; increasing evidence indicating relationship between periodontal disease and preterm labor.*
- *Education targeted to families regarding importance of smoking cessation; Y NOT QUIT program has been helpful for pregnant women to help with smoking cessation; perhaps broader program could help with smoking cessation for household members.*
- *With increased illicit drug use in pregnant women, programs to help with better access to detoxification programs and monitoring would be helpful; important for women with substance addiction to be able to seek prenatal care without fear of punitive actions that might deter patients from seeking prenatal care.*

Hambleton, RN RFTS, Madeline Precht

- *Increase the cost of cigarettes or stop selling them.*

New Martinsville, OB-GYN-MD, Ian Leggat

- *Consider making preconception health classes a compulsory one-semester course at high school for both boys and girls.*
- *Make some benefits contingent upon fulfilling some basic criteria of care e.g. attending prenatal visits.*

Elkins, Licensed Social Worker Case Manager, Jackie Wetzel

- *A full-scale program in WV to educate people of the side-effects of drug use and the benefits of healthy lifestyle. Promote the benefits of family and two parent homes for children. Provide more services in-home or in the community for single parents and young first-time mothers.*

Kingwood, Public Health RN working as DCC for RFTS

- *Better directives from the OB provider to the patient on the different programs available to assist.*
- *Better explanations of why smoking is not good for the baby during and after delivery.*

Grafton, RFTS Nurse-RN

- *Better education to prevent young pregnancies and instill in the young people that there are better things in life than pregnancy, sex, poverty and welfare.*
- *Make prenatal programs mandatory for women under 20 years, and enforce that by DHHR backup--don't let them just get pregnant and then give them Medicaid.*
- *Insist on programs to help have a healthier baby, family and ultimately, life! Too often, they reject services because they think we are there to call CPS and take their kids away from them. Take DHHR and OMCFH off the RFTS brochure and maybe more prenats would allow us to help them.*

Grafton, Public Health Nurse- RFTS DCC

- *More involvement in already existing programs such as Right From The Start.*

Williamson, WIC Nutritionist-RN

- *Education regarding effects of drug abuse/poor nutrition and baby. Prenatal/postnatal drug abuse programs are necessary, especially in rural areas.*

Parkersburg, Registered Dietitian-WIC program

- *The stigma of drinking alcohol while pregnant is a message that was received by the public. Very few of the pregnant women in our program say (or will admit) to drinking alcohol while pregnant. That message has not been as successful with smoking. Many women know that they should quit; however due to the addictive nature of nicotine, this is a hard habit to quit.*
- *More emphasis and monies should be placed on this topic and definitely physicians and midwives of pregnant women need to have a greater emphasis on helping pregnant women to understand the implications of smoking and have resources available for help to quit.*

Wayne, WIC Nutritionist

- *Stressing to women that the health of their body greatly affects the health of their unborn child.*
- *Encouraging women to space out their pregnancies, giving their body time to recover from the stress of the last pregnancy.*

Oceana, WIC Nutritionist, Debra Bryant

- *During and after pregnancy women need continued counseling on feeding their newborn.*
- *More education should also be provided in the hospitals before the mother leaves home with her infant.*

Parkersburg, Clinical Manager of Women's and Children's Services-RN, Sarah Greear

- *More education in schools and community regarding pregnancy prevention and positive health choices during pregnancy.*
- *Stronger child protective services regulations as they relate to maternal drug or alcohol use during pregnancy and after delivery.*

West Union, Public Health-RN-RFTS Program, Cathy McClain

- *Education.*

Harts, Right From The Start Registered Nurse-RN, Melissa Adams

- *If we could somehow have more information and teaching material that would be more appealing to these moms to help educate them.*

Terra Alta, Former Nurse Director Obstetrical Services-BSN, RNC, Jenni Mills

- *Fund Community Health initiatives that focus on nutrition, exercise and family education.*
- *Education to grade schools, which must include all family members, on cessation and healthy lifestyles.*
- *Encourage businesses to allow access to facilities during winter months.*

Cowen, OB Nurse-RN

- *Improved prenatal awareness and education make RFTS more available, many do not know about the program until or after delivery.*

Charleston, CNM, Lisa Dalporto

- *Increase access to health care for young women and teens.*
- *Support for nurses and nurse-practitioners (including CNMs) to deliver health care in non-traditional outpatient settings such as schools, churches, or worksites.*
- *Reinvigorate successful programs of the past, such as the Local Availability Project to increase health care providers in local communities or the program that required medical students to work in rural settings or as part of a diverse health care team.*
- *Educate doctors and hospital administrators in the value of using "mid-level" providers.*
- *Educate medical students in the value of using a team approach to health care.*

Weirton, OB Nurse-RN, Delinda Decaria

- *Early prenatal care, home health visits for moms/babies after delivery.*
- *More involved child protective services - stricter guidelines regarding positive drug abuse cases.*

McDonald, Pennsylvania, OB-Gyn Office Nurse-RN

- *Consider legislation related to consequences for drug use/ positive drug screens during pregnancy and at delivery.*

Charleston, Maternal, Child & Family Health Director, MSW, Pat Moss

- *Continued support and messages about harmful affects of smoking, especially during pregnancy.*

- *Importance of planning/spacing pregnancy and implications for family well-being.*

Alderson, Nurse manager of OB Unit, RN,

- *Giving teenage girls something to be proud of in high school and the opportunity to get further education after high school. This could lower the drug and smoking risk. The high schools are too large and students feel disconnected from the school and friends.*

Ronceverte, Perinatal Educator, Lactation Consultant-RN, BSN, IBCLC, CCE, CPST, Molly Scarborough

- *Education and information about the importance of early and continued prenatal care.*
- *Early identification and treatment for substance abuse for pregnant women.*
- *Smoking cessation for families.*
- *Support from the state level for breastfeeding-make breastfeeding the norm for our families .*
- *Greater access to car seats and proper usage.*

Pratt, RFTS-RN, Beverly Kitchen

- *Education and support for low-income pregnant women. I work with the Right From The Start Program, which provides education, support, smoking cessation, postpartum depression screening for pregnant women, IN THE Home!!!! We need more support from organizations to get the word out.*

Grantsville, Pediatrician-MD, Chadwick Smith

- *Increase the number of hospitals that offer OB care in any fashion, whether that is via OB, FP or midwives.*
- *I would also encourage all WV future mothers to have prenatal visits with the child's future provider in order to discuss new baby topics and help to give basic anticipatory guidance. This would provide a relationship, which could be built upon in the future.*
- *I also believe that a medical home for children is an essential in pediatric care. We should continue to try and foster the medical home concept for all children in West Virginia.*

Buckhannon, Birth Doula-CD DONA, Sarah Fallon

- *Along with better access to education, I feel that there should be "general" codes and regulations regarding hospital routines during labor and delivery. All hospitals should handle labor and delivery the same way. I feel that mothers deserve not only the birth experience they desire, but also the best health care possible in that delivery room with them. If one hospital in one particular part of the state has a low infant mortality rate, then all hospitals throughout West Virginia are very capable of the same, and I feel that we should do everything in our power to make that happen.*

Morgantown, Neonatal Nurse-RN, NNP, MSN, Barbara Nightengale

- *Educational programs for mothers about the harm of drug use during pregnancy and follow up care for infants born to these mothers to deal with the effects of drug use.*

- *Increase in OB physicians to provide care*

Lewisburg, Family Nurse Practitioner-Pediatrics Clinic, MSN, RN-BC, FNP, Jill Cochran

- *The state should be divided into sections and linked to hospitals that do not have a neonatal unit.*
- *The neonatologists should be part of a network with small sites, MDTV for example. We do pediatric seizure clinics monthly and have excellent support from WVU Morgantown pediatric neurology.*

Elkins, MD, ABFP, ALSO Institute, Samuel Roberts

- *More providers of prenatal care, including family physicians, to pick up hypertension, diabetes, and preterm labor, and get women to high risk centers.*

Harts, Family Health Physician, MD, Linda Kessinger

- *Mothers need to stop smoking.*
- *Rising incidence of coagulopathies.*

Spencer, ER Physician, Paul Clancy

- *Increase access to abortion.*
- *Deny welfare benefits to smokers and other substance abusers.*

Belpre, Ohio, Ob-Gyn, Chair- Holser Clinic, Laurel Kirkhart

- *Immediate Medicaid coverage for weekly IvOH progesterone injections for patients with a history of prior preterm delivery.*
- *The State could also help sponsor a study to evaluate use of this medication for those who are at risk for preterm delivery. Without the past history our area does not have effective drug treatment available.*

Petersburg, OB-Gyn-MD, John Hahn

- *Throw money at it! You cover just a fraction of the cost and expect to have it all!*

Huntington, Ob-Gyn-MD, Allan Chamberlain

- *More billboards about smoking.*
- *CPS more aggressive with Moms who are on drugs.*
- *Peer smoking cessation programs.*

Kentucky, OB-Gyn-MD, Narpat Panwar

- *Decrease smoking.*
- *Decrease weight.*

- *Decrease drugs.*

Bluefield, Ob-Gyn, MD, Amir Eshel

- *Invest in parent's education, in-home support, and one-on-one caseworker.*
- *Anti drug and alcohol campaigns.*

Parkersburg, Ob-Gyn-MD, Curtis White

- *Criminalize smoking, alcohol, and drug abuse during pregnancy. Pregnancy is an elective condition except in rape. The male or both male and female should be made responsible for repaying the costs of medical care and any other public support of the child after birth. Sounds harsh, but a debt of such magnitude would be a deterrent to irresponsible reproduction.*

Charleston, Ob-Gyn-MD, Luis Bracero

- *Start rationalization of perinatal health services as most states now have.*

Ranson, Ob-Gyn, Thorigasalm Arumgorathan

- *Good and early prenatal care.*
- *All pregnant women must have (a) health insurance, (b) Medicaid, or (c) OMCH.*
- *Increased reimbursement to OB and neonatal providers.*
- *Stop obstetricians from leaving the state (malpractice crisis.)*

Elkins, Ob-Gyn-MD

- *Routine drug screening of all OB patients and infants.*
- *More educational programs in school system.*

Buckhannon, Ob-Gyn, Kimberly Farry

- *Increase tobacco cessation in middle and high schools (raise tobacco tax!)*
- *Improved nutrition education starting in elementary school, better school lunches.*
- *Include dental care in Medicaid and RFTS programs for pregnant women.*

Princeton, Ob-Gyn-DO, FACOOG, Jamette Huffman

- *Medicaid/Unicare/Unysis coverage of Wellbutrin/Zyban for smoking cessation as well as counseling to the patients regarding smoking cessation.*

Wheeling, Ob-Gyn,

- *Providing better education in prenatal care.*

Steubenville, Ohio, Ob-Gyn-MD, John Holman

- *Hold people accountable when their failure to comply results in perinatal damage.*

Wheeling, Ob-Gyn-MD, Peter Bala

- *Stop smoking during pregnancy.*

Huntington, Ob-Gyn-MD, Richard Booth

- *Smoking cessation.*

South Charleston, Ob-Gyn-MD, RACOG, Kiran Patel

- *Smoking cessation*
- *Education preconceptually.*

Weston, OB-Gyn

- *Availability of perinatal care in closer proximity to patients.*
- *Availability of 24 hours anesthesia coverage in hospital at all times.*
- *Availability of more Ob-Gyn physicians in State.*
- *Solving of malpractice crisis.*

Ronceverte, Ob-Gyn-MD, Robert Wheeler

- *Let us bill and collect for smoking cessation at every visit.*
- *Teach teenagers in school-they will qualify for Medicaid and begin prenatal care immediately.*

Fairmont, Ob-Gyn-MD, Patrick Bonasso

- *Regionalize health care facilities with accompanying satellite clinics.*
- *Conduct smoking cessation education.*
- *Prenatal childbirth education.*

Huntington, Ob-Gyn

- *Meaningful tort reform. The recent tort reform has resulted in fewer suits being filed, but concerns about large awards for non-economic damages have not significantly lowered liability premiums.*
- *Payment to physicians through Medicaid and PEIA that is realistic. With the current fee schedule, physicians often are not able to cover their costs, thus they limit the numbers of these patients in their practice, leading to an access problem.*

New Martinsville, Ob-Gyn-MD, Ian Leggat

- *Consider making preconception health classes a compulsory one-semester course at high school for both boys and girls.*
- *Make some benefits contingent upon fulfilling some basic criteria of care e.g. attending prenatal visits.*

Morgantown, OB-Gyn-MD

- *Overall reduction in tobacco use.*
- *Having the availability of treatment on both an inpatient and outpatient basis for substance abuse for Medicaid patients.*

Beckley, Ob-Gyn-MD, FACOG, Angel L. Rosas

- *Continuous smoking cessation programs.*
- *Make outpatient diet counseling available to all pregnant patients.*
- *Emphasize the importance of prenatal counseling.*

Charleston, Ob-Gyn-MD, FACOG, FACS, MBA, Byron Calhoun

- *Increase access to perinatal and obstetrical prenatal care.*

Huntington, Ob-Gyn-MD, Maternal Fetal Specialist, Shailini Singh

- *Smoking cessation programs.*
- *Diabetes and obesity prevention programs.*
- *Access to prenatal care.*

Parkersburg, Ob-Gyn-MD

- *Penalties in Medicaid coverage if they do not attend their routine prenatal visits.*

Petersburg, Pediatrician-MD, FAAP, Fernando Indacochea

- *Expand neonatal screening and testing.*
- *Expand access to quality prenatal care.*
- *Aggressive campaign to decrease perinatal smoking exposure.*

Wheeling, Pediatrician-MD, FAAP, Charles Staab, III

- *More physicians.*
- *Patient education.*
- *Less drug abuse, alcohol.*
- *Socioeconomic/political changes to attract our best and brightest to stay in WV.*

Morgantown, Pediatrician-MD, Martha Mullett

- *In the RFTS project there appears to be different effectiveness in the way the coordinators interact with their clients. I was part of HAPI for a while and could see variations. I think RFTS people need better education and skills to be more effective.*

Morgantown, Pediatrician-MD, John Phillips

- *Educational campaign.*
- *Improved protection for physicians with regard to litigation and insurance premiums.*

Lewisburg, Pediatrician-MD, FAAP, Rodney Fisher

- *Nurses and respiratory therapist need hands on experience with neonatal resuscitation and atria..... Also, include physicians such as Ob-Gyns, Pediatricians, Family Practice physicians, and Anesthesiologists.*

Grantsville, Pediatrician-MD, Chadwick Smith

- *Increase the number of hospitals that offer OB care in any fashion, whether that be via OB, FP or midwives.*
- *I would also encourage all West Virginia future mothers to have prenatal visits with the child's future provider in order to discuss new baby topics and help to give basic anticipatory guidance. This would provide a relationship, which could be built upon in the future.*
- *I also believe that a medical home for children is an essential in pediatric care. We should continue to try and foster the medical home concept for all children in West Virginia.*

Bluefield, Pediatrician-MD, FAAP, Teresa Frazer

- *Require that CPS inform clinicians when patients are put into CPS.*
- *Require pediatricians to send second copy of EPSDT to CPS to verify visits and concerns addressed.*
- *Pass law that makes drug use in a pregnant woman a crime.*
- *Require drug screening at delivery. If positive, or if parent is impaired, frequent and early home visits of infants are mandatory, not voluntary.*

Glen Dale, Pediatrician

- *More counseling on the effects of maternal smoking during pregnancy. Emphasis should be placed on quitting, not just cutting back.*

Glen Dale, Pediatrician-Neonatologist, FAAP, Jose Ventosa

- *Public awareness re: alcohol being very related to prematurity.*

Elkins, Pediatrician-MD, FAAP, Mary Boyd

- *Cigarette tax.*
- *Encourage birth control/abstinence programs for teens.*
- *Promote breastfeeding, teach breastfeeding in schools.*
- *Promote good nutrition in school, parenting classes.*

Martins Ferry, Ohio, Pediatrician-MD, Mary Hammond

- *Social service and CPS workers are spread so thin, that this contributes to inadequate close follow-up. There needs to be a better system in place for ensuring infants at risk don't fall through the cracks of the system.*

Williamson, Pediatrician-MD

- *Patient education.*
- *Universal drug testing.*

Morgantown, Pediatrician-MD, Neonatologist

- *There should be coordinated, statewide programs for prenatal identification and treatment of mothers using drugs and a coordinated approach to their infants.*

Princeton, Pediatrician

- *Prevention is better than care. Parents with healthy and sound minds will make right decisions about healthy practices when they are expecting.*
- *Teen-age pregnancy prevention.*
- *Parents need to be educated not to do drugs, alcohol, and encouraged to have a healthy life style.*
- *Prenatal care should be easily accessible.*

Montgomery, Pediatrician-MD, FAAP, Afif Habash

- *Home health care visits.*

Charleston, Pediatrician-MD, FAAP, Geeta Jayaram

- *Decrease teenage pregnancy.*
- *Insist on in-house neonatologists.*
- *Ban smoking, alcohol, and drugs during pregnancy.*
- *Do not let mothers who smoke, drink and use drugs sue obstetricians.*

Huntington, Pediatrician-Neonatologist-MD

- *Put tighter controls on methadone use and consider second trimester detox rather than escalating doses in third trimester.*

Martinsburg, Pediatrician-MD, FAAP, Edward Arnett

- *Be more aggressive at getting drug addicts off methadone.*

Morgantown, Pediatric Cardiologist-MD, William Neal

- *Include assessment of oral hygiene/dental problems as part of EPSDT screening of children.*
- *Routine oral health maintenance covered by Medicaid.*
- *Consider quick screen and possible fluoride treatment with parental permission as part of school-based CARDIAC Project.*

Glendale, Pediatrician-MD, FAAP, Sunila Mehrotra

- *Education in school and to parents of teenage girls not to get pregnant till graduated from high school. Kids are having kids.*

IV. Potential Policy Implications

- *Initiate studies to identify the extent and severity of drug use and addiction among West Virginia pregnant women. Establish consistent guidelines for prenatal drug testing and treatment for drug use and addiction.*

- Set specific goals to decrease maternal smoking and in-home smoking by initiating a variety of incentives and disincentives for participating (not participating) in cessation programs.
- Establish a statewide coordinated partnership to plan and initiate a regional perinatal wellness program, including consistent standards of care for health care delivery and hospital quality of care, support of community hospitals through the tertiary care centers, adherence to ACOG and AAP guidelines for care, consistent guidelines for referral and transport for high risk pregnant women and high risk infants, and efforts to attract needed perinatologist to the state.
- Work with the Department of Education to improve middle school and high school student access to contraception education, child spacing, postponing pregnancy, and nutrition education.
- Support RFTS program goals through early referral into the program; do what ever it takes to provide in-home visitation for prenatal and postnatal education and care for all RFTS participants, assure quality preparation and continuing education for RFTS workers.
- Expand WIC (which serves 80% of pregnant women in WV in 2004) services to pregnant and breastfeeding women in order to improve nutrition habits and to raise the rate of women continuing breastfeeding through the sixth month of ilife. Encourage the placement of qualified lactation consultants within each hospital providing obstetrical services.