

Knowledge, attitudes and practices related to lifestyle factors among
childbearing women in the West Coast/Winelands health district

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ABSTRACT

Many of the known risk factors associated with Low Birth Weight, such as socio-economic status, ethnicity, genetic makeup, and obstetric history, are not within a woman's immediate control. However, there are many things that a woman can do to improve her chances of having a normal healthy child. Lifestyle behaviours, such as cigarette smoking, nutrition and the use of alcohol, play an important role in determining the growth of the fetus.

The aim of this qualitative exploratory study was to establish the knowledge, attitudes and practices related to lifestyle factors such as alcohol use, smoking and nutrition among childbearing women and health care workers on the farms in Stellenbosch and Vredendal.

Although some studies were done on alcohol use on the Stellenbosch farms, very little is known about the knowledge, attitudes and practices of the women living and working on the farms in Stellenbosch and Vredendal with regard to smoking, nutrition and other forms of abuse during pregnancy and in general.

Four methods of data collection were employed: focus groups with women on farms and health workers, in-depth interviews with women on farms, semi-structured interviews with health workers and observation of the farm conditions and mobile clinic services.

Strengths of women on farms and areas in need of support, as well as strengths and gaps in the antenatal health care services have been identified.

This study concludes with recommendations aimed at addressing the gaps identified in service delivery. Some of the recommendations are based on the ideas of women on farms and health workers.


This study acknowledges that LBW on farms should be addressed collectively by all the relevant sectors in the community. Although these processes have been initiated, there are gaps in the antenatal services, which could be addressed immediately to provide women with opportunities to ensure acceptable pregnancy outcomes.

DECLARATION

I declare that the study on *Knowledge, attitudes and practices related to lifestyle factors among childbearing women in the Westcoast/Winelands health district* is my own work, that it has not been submitted before for any degree or examination in any other tertiary educational institution, and that all the sources I have used or quoted have been indicated and acknowledged as complete references.

Lana Catherine Maart

May 2003

Signed: 

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INTRODUCTION

Low Birth Weight (LBW) has short and long term consequences for the health of the infant. It also indicates poor health status in the mother. Lifestyle behaviours such as cigarette smoking, weight gain during pregnancy, and the use of alcohol play an important role in determining birth outcome (Chomitz & et. al. 1995: 121).

A baseline study done by the Dopstop Association in 1998, called "A community diagnosis of Stellenbosch farm-workers, with a focus on alcohol", confirmed that high alcohol consumption is in most cases accompanied by excessive smoking and poor nutrition. Households on the "Dop" Farms were found to be significantly poorer off in terms of household socio-economic score (Dopstop Association 2001: 3).

Unfortunately, previous studies confirmed that for the farm-workers in the Winelands of the Western Cape Province, high alcohol consumption is an integral part of life for both men and women (London 1999: 1407). These risk factors are the main causes of LBW, which is less than 2500 gram.

A pilot study done in 2001 identified several gaps in antenatal health care service delivery as well as problems regarding the interaction between pregnant women and the nurses. This led to situations in which mothers denied, and under-reported alcohol use during pregnancy. There was also a general lack of health promoting activities in the antenatal clinics of Stellenbosch (Tversky 2001: 74).

This study, therefore, was aimed at the development of an understanding of the knowledge, attitudes, practices and cultural beliefs of women living and working on farms in the Stellenbosch and Vredendal areas in terms of nutrition, alcohol use, smoking behaviour in general and specifically during pregnancy. The study also focuses on the knowledge, attitudes and practices of health care workers related to

antenatal services for women working on farms.

This study was requested by the Department of Health as 16% of babies born in Stellenbosch in 1999 had a birth weight of less than 2.5 kg, while Vredendal had 23%.

This exceeds the average South African rate of 12%.

This study was necessary to ensure effective planning of meaningful intervention strategies, which in turn may lead to some modification of behaviour before or during pregnancy to improve the likelihood of the delivery of a full-term healthy infant of appropriate size.

ABBREVIATIONS & DEFINITIONS

ACC/SCN:	Administrative Committee on Co-ordination/Sub-Committee on Nutrition
ANC:	Antenatal clinic
BCEA:	Basic Conditions of Employment Act
BPD:	Biparietal Diameter
CBO:	Community-based organisation
CDC:	Center for Disease Control
CI:	Confidence Interval
DVA:	Domestic Violence Act
EN:	Enrolled Nurse
ENA:	Enrolled Nursing Assistant
FAS:	Fetal alcohol syndrome
HIV/AIDS:	Human Immunodeficiency Virus/Acquired Immunodeficiency Syndrome
IUGR:	Intrauterine Growth Retardation
LBW:	Low Birth Weight
MAD:	Mean Abdominal Diameter
MRC:	Medical Research Council
NGO:	Non-governmental organisation
NIAAA:	National Institute on Alcohol Abuse and Alcoholism
NMIHS:	National Maternal and Infant Health Survey
RN:	Registered Nurse
RR:	Risk Ratio
SAA:	Social Assistance Act
SADHS:	South African Demographic and Health Survey
TB:	Tuberculosis
UNICEF:	United Nations International Children and Educational Fund
WHO:	World Health Organisation

“Coloured” in this study refers to the Apartheid-era historic definition.

“Low Birth Weight” refers to a birth weight less than 2500 gram (38 weeks gestation).

“Women of childbearing age” refers to women between the ages of 15 and 46 years.

PROBLEM

The Stellenbosch and Vredendal areas in the West Coast/Winelands district are primarily farming areas in the Western Cape. The Vredendal area is primarily a rural farming area while the Stellenbosch area is a peri-urban farming area. In 1999 16% of babies born in Stellenbosch had a birth weight less than 2.5 kg while Vredendal had 23%. This exceeds the average South African rate of 12%. According to the Administrative Committee on Co-ordination/Sub-Committee on Nutrition (ACC/SCN) (2000) any rate above 15% should be rated as a major public health problem. Low Birth Weight (LBW) has short and long term consequences for the health of the infant. It also indicates poor health status in the mother.

PURPOSE

The purpose of this study is to make recommendations that will assist in the design of a successful health promotion programme aimed at reducing Low Birth Weight based on the knowledge, attitudes and practices of farm women and health workers.

SIGNIFICANCE

The stakeholders in this study include the women living and working on farms as well as the health workers related to antenatal services, reproductive health services and the relevant representatives from the existing non-governmental organisations.

The health promotion programmes will be more acceptable if it takes into account the knowledge, attitudes, practice and cultural beliefs of women living and working on farms and of the health workers in terms of nutrition, alcohol and smoking behaviour. This study is of value to all women of childbearing age in improving their health and that of their future offspring.

Health workers will also be able to reflect on their existing practices and to identify gaps with the aim of addressing it. The district health management team will also receive information, which will assist in the planning of appropriate health promotion strategies.

The farming industry will also benefit, as they will have healthier employees with healthier children.

The resultant recommendations from the study may be applicable to other farming areas in the West Coast/Winelands region as well as other antenatal and reproductive health clinics.

AIMS

1. To develop an understanding of the knowledge, attitudes, practice and cultural beliefs of women of childbearing age living and working on farms in terms of nutrition, alcohol and smoking behaviour in general and specifically in pregnancy.
2. To establish the knowledge, attitudes and practice of health and social service workers related to women's health and specifically antenatal services for childbearing women working on the farms.

OBJECTIVES

1. Describe the current system for obtaining, processing and responding to information relating to drinking, smoking and eating habits at the antenatal clinics;
2. Explore the attitudes, knowledge and practices of women regarding alcohol, smoking and nutrition during pregnancy;
3. Explore the attitudes and knowledge among health workers with regards to alcohol, smoking and poor nutrition of pregnant women on the farms;
4. Identify the facilitators' and deterrents' of practicing a healthy lifestyle on the farms;
5. Solicit suggestions by women of childbearing age and health workers to improve the health of women working on farms.

LITERATURE REVIEW

While the literature on alcohol use, smoking and nutrition and the effect on pregnancy outcome is extensive, little has been written about the knowledge, attitudes and practices of women of childbearing age and health personnel regarding other lifestyle factors contributing to children born with a low birth weight (LBW). This literature review aims to provide an overview of the prevalence of LBW as well as an overview of lifestyle factors such as alcohol use, smoking, nutrition, violence and stress. The review will also include a discussion of the health services with regard to managing poor lifestyles and a brief profile of the West Coast/Winlands region. Another section of the review will be a discussion of previous research methodologies applied to determine knowledge, attitudes, practices and beliefs. Finally, a brief overview of some of the relevant health behaviour models will be provided. As this study is part of a five-year action research project, the literature review on prevention programmes will not be part of this literature study.

Prevalence of LBW

The prevalence of LBW varies between regions, countries, and within areas of the same country (Dhansay et.al. 1995: 2). Maternal environment is the most important determinant of birthweight, consequently the majority of LBW in developing countries is due to intrauterine growth retardation (IUGR) (ACC/SCN 2000: 4).

The prevalence of LBW among white infants in the US is less than half of that for African-American infants (6% and 13%, respectively). African-American women have about double the rates of LBW as white women. This is due to the fact that

African-American mothers are more likely to have less education, tend not to be married and to be younger than white mothers (Chomitz et. al. 1995: 123).

The majority of the babies born with LBW are from South Asia and Sub-Saharan Africa. Nearly 80% of all affected newborns with LBW at term are born in Asia, with Bangladesh having the highest incident rate in the world i.e. > 35% (ACC/SCN 2000: 4). Many developing Asian and African countries exceed the internationally recommended cut-off levels, which should trigger public health action. Incident rates of >15% for LBW and 20% for IUGR indicate that LBW at term (38 weeks gestation) is a major public health problem.

Most of the data available from different parts of the world are from clinic or hospitals deliveries, whereas, in some regions of Africa and the south-east Asia most infants are born at home and are not measured. There is a need to determine whether data from hospital-born infants in developing countries are representative of large population born at home (ACC/SCN 2000: 5).

The percentage of LBW for the Cape Metropolitan Council according to race in 1994 were as follows: African 11,9%; Coloured 18,6%; Indian 8,3% and White 7,2% (Dhansay et. al. 1995: 4).

The West Coast/Winelands region of the Western Cape Province is primarily a rural farming region with five sub-districts. In 1999 there were 9461 births of which 19.2% had a birthweight less than 2.5 kg (MRC 2000: 6). Rates within some sub-districts are even higher: Malmesbury 19%, Paarl 20%, Stellenbosch 16%, Vredenburg 15% and Vredendal 23%. The ACC/SCN considers a LBW rate over 15% to be a "major public health problem"(ACC/SCN 2000: 4) and this region and all of its sub-districts exceeds this rate and the South African average of 12% (Dhansay et.al. 1995: 1).

Review of lifestyle factors

Lifestyle behaviours, such as cigarette smoking, alcohol use, use of other drugs, nutrition, stress and violence, play an important role in determining fetal growth (Chomitz et. al. 1995: 121). The relationship between lifestyle risk factors and LBW is very complex and is affected by the mentioned psychosocial, socio-economic and biological factors. This review will focus primarily on lifestyle behavioural risk factors that are amenable to change. This does not imply by any means that social factors and disease (in this case LBW) are not linked. In fact, women who live in poverty, who have low levels of education, who work in low wage jobs, and who have few other resources are more likely to suffer adverse birth outcomes than are more advantaged women (Hughes et. al. 1995: 87).

Smoking

It has been consistently reported that, even after controlling other factors, women who smoke are about twice as likely to deliver a LBW baby as are women who do not smoke (Chomitz et. al. 1995: 125). Smoking retards fetal growth and birth weight is reduced by 150 to 320 grams in infants born to smokers compared to those born to non-smokers. Cigarette smoking during pregnancy may account for up to 14% of preterm deliveries. Smoking has also been linked to long-term effects in infants such as physical, mental and cognitive impairments (Chomitz et. al. 1995: 125).

The prevalence of high-risk behaviours among pregnant women to the number of live births in the United States in 1989 showed that 20% to 25% of pregnant women (+- 1 million) smoked during pregnancy. In 1990 there were 4,158,212

births in the US, and 6,97% (+- 290,000) of these infants were born with LBW. Approximately 48,000 LBW births could have been prevented if women had not smoked during pregnancy (Chomitz et. al. 1995: 125).

In a historical cohort study done in the city of Pelotas, Brazil, the association between the intensity and duration of cigarette smoking during pregnancy and the frequency of LBW, preterm births and IUGR was investigated. All 5166 live births occurring in that city in 1993, were identified and mothers were interviewed soon after delivery. Children whose mothers smoked during pregnancy had a birth weight 142g lower than those of non-smoking mothers. The odds ratio for LBW among children of smokers was 1.59 [95% CI 1.30 – 1.95]. There was no association between smoking and preterm delivery assessed by the Dubowitz score. In relation to IUGR, smoking was associated with an odds ratio of 2.07 [95% CI 1.69 – 2.53]. There was a direct dose-response association between the number of cigarettes smoked and the risk of growth retardation (Horta et. al. 1997: 141).

A retrospective study done in Sweden to determine whether stopping smoking between the first prenatal care visit and the 32nd week of pregnancy affects the smoking-associated changes, found that smoking associated deficits in infant birth weight, head circumference and body weight ratio were prevented. It did not, however, completely prevent deficits in crown-heel length in comparison with non-smokers' infants of the same age, and did not prevent elevation of ponderal index in comparison with non-smokers' infants of the same weight and age. The study population consisted of 15,185 births in the Swedish Medical Birth Register from 1991 and 1992 (Lindley et. al 2000: 219).

Another study done in three Scandinavian cities namely, Bergen, Trondheim and Uppsala, investigated the association between maternal cigarette smoking and fetal growth by evaluating longitudinal ultrasound examinations and neonatal anthropometric measurements. Ultrasound measurements were performed in pregnancy weeks 17, 25, 33 and 37. Biparietal diameter (BPD), mean abdominal diameter (MAD) and femur length were recorded. The negative effect on fetal growth from maternal smoking was found to affect the male fetus proportionally more than the female. Boys born to heavy-smoking mothers had a weight reduction of 8.2% and a lower fat accretion (as measured by subscapular skinfold) of 12%, whereas girls had a weight and fat reduction of 4.8% and 2% respectively. In boys (but not girls) born to smokers, head circumference was significantly smaller, also reflected by significantly mean BPD measurements recorded from pregnancy week 18 onwards (Zaren et. al. 2000: 118).

Data from 11 different regions in developed countries and 25 in developing countries revealed that most of the differences in LBW rates between developed and developing countries appear to be attributable to an increased prevalence of IUGR, with cigarette smoking during pregnancy appearing to be the most important mediating factor for IUGR, with low gestational weight gain and short stature also playing substantial roles. In this study evidence of populations was reviewed that bears on the causal pathways by which socio-economic disadvantage leads to increased risk of adverse pregnancy outcomes (Kramer et. al. 2000: 194).

In South Africa research was mainly done in the Western Cape with regards to smoking and other risk factors for LBW. Surveys done in the West Coast /Winelands region showed 56% of women smoked cigarettes (DOPSTOP 2001:

3), which is consistent with the data from Croxford and Viljoen (1999: 964) of 45.6% in pregnant women smoking from this region. Smoking has been shown to be a major determinant of LBW in similar ethnic groups from urban communities in the Western Cape. A cohort study called "Risk Markers for LBW in Women attending an Antenatal Clinic in Bishop Lavis, a Low Socio-economic Area" showed that the smoking prevalence was high (51.7%) with a relative risk for LBW in smokers vs non-smokers of 1.5, 95%CI 1.2-1.9 (Dhansay et.al. 1995: 7). According to Prof. Odendaal, a researcher at the Medical Research Council in South Africa, international results show that smoking can decrease birth weight by up to 150 grams, while results in South Africa show birth weight to decrease by as much as 256 grams. If a smoking mother also follows a poor diet, the effect is exacerbated. Smoking also increases a mother's chances of premature labour and birth. The incidence of premature birth in SA is 20%, which is very high (MRC News 2002: 7).

Alcohol

There is growing evidence that as little as one drink a day can adversely affect fetal growth and development (Chang et. al. 1999: 1498). A study examining the effects of light or moderate maternal drinking during pregnancy found a decrease in mean birth weight associated with maternal drinking, and an increase in the probability of a preterm delivery (Lazzaroni et. al. 1993: 599). More serious neurobehavioural deficits and prenatal growth retardation also have been found in children whose mothers drank moderately during pregnancy (NIAAA 2000: 323). Alcohol exerts a particularly teratogenic effect between the 3rd and 8th week of pregnancy for most organ systems (CDC 1988: 321). This is problematic for any

community, considering that most women are not aware of their pregnancies until they are six weeks pregnant (CDC 1988: 323). Although it is impossible to establish a threshold for risk of fetal alcohol effects, some studies have shown corresponding increases in cranial abnormalities with increasing exposure to alcohol (NIAAA 1991: 142). Fetal Alcohol Syndrome (FAS) is a disorder solely attributable to the teratogenic effects of alcohol on the fetus in utero. The features of FAS are growth retardation, central nervous system abnormalities, a characteristic facial dysmorphism and malformations of other organ systems, such as cleft lip, cleft palate and neural tube defects (Viljoen 1999: 958). The risk of LBW to women drinking three to five drinks per day was increased twofold over non-drinking mothers and almost threefold for those drinking six or more drinks daily when compared with women who did not drink. A study of French women showed that those who consumed 35 drinks or more a week gave birth to infants that weighed 202 grams less than the infants of women who consumed six or fewer drinks per week (Chomitz et. al. 1995: 126). In addition to the effects of maternal drinking on newborns, there are myriad additional adverse social consequences to maternal drinking. It is also known that mothers with one child with alcohol related birth defects are much more likely to have another child with similar outcomes (Tversky 2001: 14).

Based on the findings of the Department of Health's South African Demographic and Health Survey (SADHS) conducted in 1998 by the Medical Research Council (MRC) and Macro International Inc., 8.3 million South Africans 15 years and older currently consume alcohol. The lowest rates of alcohol consumption were reported by African and Asian females (12% and 9% respectively) (Parry 1998: 441).

A study assessing alcohol consumption by pregnant women in the Western Cape attending selected antenatal clinics in the George/Oudshoorn, Vredenburg/Saldanha and Cape Metropole areas, reported 42.8% of pregnant women admitted to varying degrees of alcohol ingestion during their pregnancies (Croxford & Viljoen 1999: 962). This situation could be contributed to the fact that many farm workers in South Africa continue to live and work under adverse conditions that are the legacy of apartheid policies. The arrangement by which workers are given alcohol as a benefit of employment (the 'dop' system) appears to persist on a minority of farms. The ramifications however, of the previously institutionalised huge consumption of alcohol are widespread resulting in a high prevalence of FAS and LBW babies (London 1999: 1407). A recent prevalence survey in school age children showed the highest rate of FAS to be the highest recorded to date in an overall community population, 40.5-46.4/1000 (May et. al. 2000: 1905). It is thought that alcohol may play a major role in the occurrence of LBW in the West Coast/Winelands region of the Western Cape Province.

Croxford and Viljoen (1999: 964) also surveyed maternal knowledge of alcohol abuse and found that 35,6% (21/59) of the significant drinkers had a degree of insight, ranging from minimal to excellent knowledge of the potential teratogenic effects of alcohol. In contrast only 22.8% (47/206) of the women who reportedly did not drink or only drank minimal amounts of alcohol indicated any insight in this regard.

Nutrition

The mother's diet during pregnancy also influences fetal growth. According to UNICEF (2000: 5), balanced energy and protein supplementation of

undernourished women leads to a significant increase in birth weight, and in some studies a reduction in infant mortality. This is consistent with the finding that maternal weight gain in pregnancy, which is correlated with energy intake, predicts birth weight. The United Nations Administrative Committee on Coordination, Sub-Committee on Nutrition (ACC/SCN) (2000: 4), also confirmed that maternal under-nutrition is associated with LBW. In 1999 the findings of a five year randomised controlled trial from Gambia revealed that a high energy, antenatal dietary supplement can increase maternal weight gain, reduce LBW by 35%, and significantly reduce stillbirth and neonatal deaths by 55% and 40% respectively (ACCN/SCN 2000: 15). A woman's nutrition and weight gain are closely related to her socio-economic status, cigarette smoking and other health-related behaviours. Epidemiological evidence has demonstrated a nearly linear association between maternal weight gain during pregnancy and birth weight and an inverse relationship to the rate of LBW. Maternal weight gain during pregnancy is highly correlated with birth weight of the infant because a large proportion of the weight gain is due to the growth of the fetus itself. Women with total weight gains of 10kg or less were two to three times more likely to have growth-retarded full-time babies than were women with a gain of more than 10kg. This study in the US also discovered that African-American mothers gained less weight than white mothers (28 versus 31 pounds) (Chomitz et. al. 1995: 121).

In a case-control study of 712 Brazilian mother-baby pairs, the relationship between maternal nutritional status and IUGR was investigated using stratification and logistic regression. According to the final logistic regression model, the risk factors for IUGR were firstly maternal body weight, then per capita income and

thirdly cigarette smoking followed by maternal weight gain (Rondo et. al. 1997: 153).

A systematic review of randomised trials that compared supplementation with at least 1gram calcium daily during pregnancy with a placebo at the East London and Coronation hospitals in South Africa confirmed that there were fewer babies with a birth weight of less than 2500g (7 trials, 6491 women; RR 0.83, 95% CI: 0.71 – 0.98). As the aim of this trial was to reduce gestational hypertension primarily, further research is necessary to investigate the benefits of calcium reducing LBW (Hofmeyr et. al. 2003: 224).

The Dhansay study in Bishop Lavis in the Western Cape found low percent standard weight in the women to be a significant preventable risk factor for LBW. Moderate maternal drinking associated with malnutrition may also produce symptoms of FAS, which means the fetus could be placed at an even higher risk (Moore 1982: 50).

A survey done in 2000 in the Stellenbosch farming area, found that 14% of women were underweight (Charlton et. al. 2000: 6).

Violence & Stress

Pregnancy is a major life transition associated with many psychosocial changes for women as a result of hormonal changes. The hormonal changes are responsible for increased levels of anxiety, stress and depression. In addition, many women report physical abuse during pregnancy, both those who experience continuing abuse and those for whom abuse begins during pregnancy (Sagrestano et. al. 2002: 147). Although the American College of Obstetricians and Gynecologists has recommended the routine screening of childbearing women for

physical violence, surveys of obstetricians indicate that only 19% to 39% screen for domestic violence, usually when abuse is suspected (Sagrestano et. al. 2002: 147).

Rates of LBW are twice as high among African-Americans than European-Americans and a contributing factor could be chronic stress as several studies support the hypothesis that chronic psychosocial stress has a negative impact on pregnancies as well as on fetal development (Stancil et. al. 2000: 127).

Surveys done in the US in 1995 estimated a prevalence of 8% to 17% of pregnant women subjected to domestic violence. There is also some evidence of LBW among women who have been abused during pregnancy, possibly due to physical trauma resulting in abruption, infections or uterine contractions leading to early onset of labour (Chomitz et. al. 1995: 128).

In a report on the health status of 247 fruit farm workers in the Western Cape it is stated that the commonest type of brain injury were either from a blunt object (39% of all subjects) or from a penetrating wound (16% of all subjects). These were about twice to three times as common as motor vehicle accidents or sport injuries, probably reflecting high levels of interpersonal violence experienced by farm workers (London et. al. 1998: 1096). High levels of physical violence on farms in the Western Cape have also been reported by the National Trauma Research Programme in 1994 (London 1999: 1408).

A cross sectional analytic community diagnosis survey done in 1998, on randomly selected farms in Stellenbosch reported a link between drinking, accidents and violence (Dop Stop Association 2001: 6).

Health Services management of poor lifestyles

Women have varying degrees of control over their use of health care services; however, once a woman chooses a provider, control over the quality and quantity of health care shifts to the provider. After reviewing data from the 1980 National Natality Survey it was concluded that for many women who seek antenatal care, the quality of the care they receive is not even minimally acceptable. The types of advice and tests provided to women varied substantially according to sociodemographic factors (Saftlas et. al. 2000: 413).

Results of the 1988 National Maternal and Infant Health Survey reveal that lack of antenatal health advice to pregnant women results in delivery of LBW infants. The number of follow-up visits do not influence antenatal care and it also reveals that white women receive more advice on alcohol use, breastfeeding and smoking than black women (Turner 1994: 187).

In a randomised clinical trial in Harare, Zimbabwe, a new programme of antenatal care was compared with the standard programme. The new programme consisted of fewer but more objectively oriented visits with fewer procedures per visit. The findings reveal that women allocated to the new programme had fewer antenatal referrals, fewer labour referrals for severe hypertension or eclampsia and the risk for preterm delivery was significantly lower. The study concluded that an antenatal programme with fewer more objectively oriented visits could be more beneficial without adverse effects on the pregnancy outcome (Munjanja et. al. 1996: 364).

According to the South African guidelines on Antenatal Care (ANC) (Department of Health 2000: 18), the overall purpose of ANC is to ensure the best possible pregnancy outcome for women and their babies. This may be achieved by

screening for pregnancy problems, assessment of pregnancy risk, management of problems that may arise during the antenatal period, administration of medication that may improve pregnancy outcome, provision of information to pregnant women and physical and psychological preparation for childbirth and parenthood. The legacy of apartheid however, has created marked differences in health status, based on race. This resulted in health services, which are fragmented and unevenly distributed, causing inefficiency and ineffectiveness. In particular, many people in rural and peri-urban areas have inadequate access to health care services. Women often do not have access to comprehensive health services, including antenatal, delivery, postnatal and reproductive health services (White Paper for the Transformation of the Health System in South Africa 1997: 207). Although a district health system has been established, the various health authorities are still managing health services separately preventing the integration of activities of all role players in ensuring a comprehensive approach to health care delivery.

Screening tools to assess lifestyle factors of clients attending antenatal clinic in the Western Cape, also seems to be inadequate. Although it might appear that the screening tools for alcohol use are adequate, some literature strongly recommend the design of a screening tool that takes into consideration the specific circumstances of a community or population.

Unpublished results of an evaluation of health promotion activities for women at risk of alcohol intake in Stellenbosch, identified a need for more delicate questioning when screening women about risky behaviours with particular reference to alcohol intake (Tversky 2001: 74).

In order to restore the health and dignity of the farming community, a comprehensive approach to health where all systems and structures which govern social and economic conditions and the physical environment should be taken into account. Emphasis should be placed on health promotion which is a process of enabling people to increase control over, and to improve their health. According to the Ottawa Charter (WHO 1986), health promotion represents a comprehensive social and political process and it embraces also action directed towards social, environmental and economic conditions so as to alleviate their impact on public and individual health. The five priority action areas for health promotion are:

- building healthy public policy
- creating supportive environments
- strengthening community action
- developing personal skills
- reorienting health services

Brief profile of the West Coast/ Winelands Region

The West Coast/Winelands region of the Western Cape Province is a primarily rural farming region with five sub-districts. Stellenbosch has an estimated population of 90, 659, Paarl 226,510, Malmesbury 129,019, Vredenburg 65,041 and Vredendal 84,294. The estimated total population for the West Coast/Winelands region for 2003 is 595,523 and an estimated population of 679,388 is projected for 2010. These population figures are based on the 1996 census information (Department of Health 2003).

In 1999 there were 9461 births in this region of which 19.2% had a birthweight less than 2.5kg (MRC 2000: 6).

Farms of this region mainly produce wine, deciduous fruit and wheat with lesser contributions from vegetables and stock farming (London 1999: 1408). The majority of workers on the farms in the region are Afrikaans-speaking Coloured people. Many farm workers continue to live and work under adverse conditions that are the legacy of apartheid policies. Despite the official prohibition of the 'dop' system, an arrangement by which workers are given alcohol as a benefit of employment, a minority of farms are currently actively practicing the 'dop' system. The 'dop' system had its origins in the early years of colonial settlement in the Cape Colony when indigenous pastoralist and coastal peoples were induced to enter service on settler farms with payment of tobacco, bread and wine which continued for more than 300 years. This system was not only confined to the wine farms but included the fruit and wheat farms. Given the social context, the alcohol consumption is extra-ordinary high and London et. al (1999: 1409) found the alcohol consumption amongst farm workers in the Western Cape to be approximately twice that of their urban counterparts. The 'dop' system serves to reinforce the web of poverty in which farm workers are enmeshed, with endless adverse physical, emotional and social consequences for health of the workers and their families (London 1999: 1411).

A study done in 2001 by the Dop Stop Association showed that the literacy rate in adults aged 15-54 was 79.6%, which compared well with the figure for the Western Cape, which was 78.7%. Literacy, however, showed a clear age trend in that older farm workers were less likely to be able to read and write eg. 45-54 was 46% (Dop Stop Association 2001: 2).

Methodologies

Knowledge, Attitude, Belief and Practice (KABP) surveys aim to measure facts, psychological and personal variables in order to better understand why people act the way they do so that more effective programmes may be developed (Katzenellenbogen 2001: 169).

It is, however, not so easy to measure variables such as anxiety, depression, social support, stress and domestic violence. A correlational analysis done in the US indicated that single-item self-report measures were more appropriate to detect some psychosocial risk factors in clinical settings for referral purposes – but when assessing for domestic violence, single-item measures may not be adequate, as personal interviews using a standardized, psychometrically sound measure resulted in higher rates of reporting (Sagrestano et. al. 2002: 147).

Numerous quantitative studies of women on farms in the Western Cape, measuring cigarette smoking, alcohol intake drug use and eating practices are published e.g. Croxford & Viljoen 1999, DOPSTOP 2001, Dhansay et. al. 1995, London 1999 and May et. al. 2000.

Very few exploratory qualitative KABP surveys have been done to establish why women of childbearing age engage in risky behaviours, which may compromise their own health and the health of their babies.

The relationship between lifestyle risk factors and LBW is very complex and is affected by psychosocial, socio-economic and biological factors. While it is important to describe the independent effects of different behavioural and socio-economic risk factors, it must be kept in mind that these factors are not isolated events in women's lives, but are part of many interrelated complex behaviours and environmental risks (Chomitz et. al. 1995: 121).

It is very evident from the literature review that there is a need to develop an understanding of the knowledge, attitudes, practices and cultural beliefs of women and health workers regarding lifestyle risk factors in general and specifically during pregnancy which may result in babies with LBW. Only when there exists a general understanding it will be possible to plan strategies aimed at behavioural and lifestyle changes.

Health Behaviour Models

As this is an explorative qualitative study aimed at establishing knowledge, attitudes, behaviour and practices it is important to reflect on some of the Health Behaviour Models of health promotion. It will assist in understanding the nature of targeted behaviours. Health Behaviour models can explain the dynamics of behaviour, the processes for changing the behaviour, as well as the effects of external influences on the behaviour. Programmes aimed at behaviour change could be more effective as an understanding of health behaviour will assist with the identification of the most suitable targets for programmes, methods and outcomes for evaluation (Glanz 1998: 1).

Health Belief Model

The Health Belief Model is one of the most widely recognised conceptual frameworks of health behaviour. Originally this model was developed to help explain health-related behaviours.

This model is explained by means of six constructs representing perceived threats and benefits as follows:

1. Perceived susceptibility (one's opinion of chances of getting a condition)

2. Perceived severity (one's opinion of how serious the condition and consequences are)
3. Perceived benefits (one's opinion regarding the efficacy of the advised action to reduce risk or seriousness of impact)
4. Perceived barriers (one's opinion of the tangible and psychological costs of the advised action)
5. Cues to action (strategies to activate readiness)
6. Self-Efficacy (confidence in one's ability to take action)

The Health Belief Model could be effectively applied when the problem behaviour or condition evokes health motivation. It could also be extended to social and economic motivations (Glanz 1998: 6).

The Theory of Planned Behaviour

This theory is an extension of the Theory of Reasoned Action, which states that behaviour is dependent on two variables namely:

1. Attitudes and beliefs about the consequences of the behaviour and an appraisal of the positive and negative aspects of making a change
2. Subjective norms i.e. what 'significant others' do and expect and the degree to which the person wants to conform and be like others.

These two influences combine to form an intention (Naidoo et. al. 2000: 226).

The Theory of Planned Behaviour incorporated another variable, stating that people's behaviour is a consequence of their perceived control. Generally people differ in the extent to which they think they can make changes in their lives (Naidoo et. al. 2000: 226).

Health Action Model

The Health Action Model provides an explanatory framework, which identifies a variety of psychological, social and environmental influences which research and practice have shown to be important determinants of health or illness-related choices (Tones 1995: 17).

This model explains how a behaviour intention is influenced by three general systems. The first system (belief system) is made up of a number of important beliefs, while the second system (also called the motivation system) is concerned with values, attitudes, feelings and emotional states. The third system (normative system) emphasises the importance of various kinds of social pressures on people's health choices (Tones 1995: 17).

The Health Action Model also shows how a healthy intention could be realised by facilitating factors such as knowledge, skills and a supportive environment. This will ensure sustainability and allowing healthy behaviour to become a routine. This model also acknowledges the possibility of a relapse and provides for reappraisal of good intentions. The Health Action Model also emphasises self-concept and self-esteem, as it is central to an empowerment strategy.

In conclusion this model provides a blueprint for action, which will enable people to take control of their lives by ensuring that environmental circumstances facilitate healthy choices. The Health Action Model emphasises the fact that the success of health promotion is also based on healthy public policies (Jones 1995: 18).

METHODOLOGY

A qualitative study was undertaken to develop an understanding of the knowledge, attitudes, practices and cultural beliefs of childbearing women on farms and health and social workers in terms of healthy pregnancy. Data for the actual study was collected during March and April 2003.

Focus groups with women on farms

One focus group discussion with a group of eight women on each farm was planned with moderate facilitator involvement. The aim of these focus groups was to explore lifestyle issues in general and more specifically during pregnancy. Women on the three farms both in Stellenbosch and Vredendal had an equal chance of being selected to participate in a focus group, in-depth interview or to be observed in their daily life. The farms represented farms with health workers, farms with no health workers and farms with health workers but without support from outside.

All focus group discussions were facilitated in Afrikaans. The facilitator's main role was to allow for free flowing discussions and to ensure that there was no domination by a single person. It was emphasised to all participants that there was no right or wrong answer and that they should feel free to express their own opinions.

To initiate the discussions, women were asked whether they preferred to have a small or big baby. They also had to substantiate why they preferred to have a small or big baby. No direct confrontational questions were asked about drinking and smoking habits e.g. "Do you drink and how often do you drink?" Women were rather asked whether they knew women who were drinking during pregnancy. (See appendix B for schedule.) This method of questioning kept them relaxed even when they shared their own personal experiences.

The focus group discussions were more or less forty-five minutes long. The focus group discussions were recorded, transcribed and translated. The transcript was then coded for themes.

Access on to the farms was not always easy and there were many channels to follow. Once you were allowed to visit the farm, it was important not to overstay your welcome to avoid unnecessary suspicion from farm owners.

The focus group discussions took place during working hours in Stellenbosch, and although one felt like allowing women just to continue talking, it was not always possible as there were some time constraints. Although arrangements were made for 8 – 10 women, it was not always possible get that number of women as some of the women were seasonal workers and had to be transported home after work.

Interviews with women on farms

In-depth interviews were conducted to establish knowledge, attitudes, practice and cultural beliefs related to lifestyles and habits, especially around childbearing, as well as their perception of health services and their own health service needs.

It was planned to interview about three women of different ages on each farm. Interviews took place during the month of March 2003 in Vredendal and during April 2003 in Stellenbosch. Interviews continued to enrol new subjects until no new knowledge has been gained. The duration of the interviews was for an average of forty minutes. An interview schedule with semi-structured questions was used. (See appendix A for schedule.) Interviews were also recorded and all interviews were conducted in Afrikaans.

The interviews were then transcribed and translated. Subsequently, the translated transcripts were coded for themes.

A private room to conduct interviews was not always available on these farms and in some situations the privacy of a car was the best option.

Focus groups with health workers

Two focus groups were planned for health care workers in each site to establish the perceptions of health workers of the lifestyles of women on farms, and to elicit ideas regarding potential interventions, especially for pregnant women, to reduce harmful habits and promote health amongst the women. Health workers had an equal chance of being selected to participate in the focus group.

Discussions were facilitated in Afrikaans and were all recorded. Each discussion opened with a question about what the participants thought was the effects of poor nutrition, alcohol use and smoking during pregnancy. (See appendix C for schedule.)

The discussions were forty-five minutes to an hour long. The recorded discussions were transcribed, translated and coded for themes.

The non-availability of the other members of the health team (e.g. doctors, social workers, psychologists and health promoters) was a reality as they were either not there or situated away from the clinic. Some of them were rendering services at different facilities. An appointment was made to have an interview with the health promoter at "Aan Het Pad" clinic as she had to attend to clients on the day of the focus group discussion.

Semi-structured interviews with health workers

These interviews were aimed at establishing the perceptions of the health care workers of the lifestyles of women on farms and to elicit ideas regarding potential interventions.

Three interviews with different health care workers were planned. The duration of the semi-structured interviews was for an average of forty minutes.

The same interview schedule used for the focus groups was used for the interviews and the same opening question was posed. The participants for the interviews did not participate in the focus group discussions. All interviews were conducted in Afrikaans and were recorded. The recorded interviews were transcribed, translated and coded for themes.

A limitation to the data collection was the absence of a variety of health care workers for interviews.

Observation exercise

The aim of the observation exercise was to observe the activities of the health workers and how they addressed nutrition, alcohol and smoking related behaviours of women of childbearing age. The conditions on farms and the activities of women related to alcohol use, smoking and nutrition were also observed.

Observation of the mobile services took place over two days, one day in Vredendal and the other day in Stellenbosch. Observation of the conditions of farms and activities of women took place over a period of a week in Vredendal (3/3 – 7/3/03) and Stellenbosch (10/3-12/3/03 & 15/4/03). Observations were validated by means of questions to the staff and women on the farms. Data was recorded in a notebook. A detailed report was compiled at the end of the day when the mobile services were observed.

A limitation to these observation exercises was the fact that only a limited amount of time could be spent on the farms and it was a real challenge to get access to the mobile services.

RESULTS

1. Focus groups with women on farms

Seven focus group discussions were facilitated and the details were as follows:

Farm	Place	Number of women	Mean age of women	Mean number of children per woman
A	Vredendal	9	25	1
B	Vredendal	6	40	3
C	Vredendal	6	37	2
D	Stellenbosch	11	31	2
E	Stellenbosch	7	39	2
F	Stellenbosch	3	23	1
G	Stellenbosch	8	29	2

1.1 Knowledge and attitudes about pregnancy.

When questioned about the signs of pregnancy, it was described as follows:

- “Your monthly period disappears.”
- “ My breast nipples became darker.”
- “Ek het mislik geraak.” (“I became nauseas.”)
- “I got morning illness.”

Two of the older women said that they experienced all the above-mentioned symptoms, but did not realise that they were pregnant.

When they were asked how they felt about the pregnancy, different feelings were expressed. Half of the participants felt happy and the other half felt unhappy. One lady stated that women felt differently since their circumstances were different.

1.2 Knowledge about the effects of alcohol use, smoking and poor nutrition during pregnancy.

In an attempt to avoid being direct and confrontational, participants were asked whether they knew of women who smoked or used alcohol during pregnancy. Most of them said there were women who were drinking and smoking, while a few answered that they were not aware of women on that specific farm who were smoking or drinking. When asked how frequently women were drinking, they responded as follows:

- “Mainly weekends”
- “They drink the whole week.”
- “Women drink more than the men.”
- “Every weekend I use to have a bottle.”

When asked what effect smoking and alcohol might have on the unborn baby, most of them were aware of the negative effects it could have on the unborn baby.

The following effects were mentioned:

- “Many of the children are disabled.”
- “The baby will be small.”
- “ Hulle is dowwer en stadiger as die ander kinders.” (“They are slower than other children”.)
- “Underweight”
- “Smoking can also cause lung and chest problems.”

Some of the women also talked freely about their own habits of alcohol use.

When asked what types of healthy foods should be consumed during pregnancy, all the women mentioned vegetables, fruit and milk. Only a few individuals mentioned proteins. Some women also talked about their personal food preferences.

1.3 Beliefs about pregnancy.

When asked about certain beliefs about pregnancy, similar responses were received from the women, although not all of them lived on the same farm.

Responses were as follow:

“Mag nie deur die draad klim nie, die kind sal gebore word met die naelstring om die nek.” (“Should not climb through fences, the child will be born with the cord around the neck”.)

“Mag nie oop sit of plat sit nie, die kind se kopnate is dan oop.” (“Don’t sit with your legs open or flat, the child’s head sutures will be open”.)

“As jy lag vir iemand dan gaan jou kind lyk soos daardie persoon.” (If you laugh at somebody, the child will look like that person”.)

“Jy mag nie stywe klere dra nie, die kind sal wurg of ‘n pap nek het.” (You should not wear tight clothing, it will choke the child and the neck will not be firm”.)

“Jy mag nie brei nie, die string sal om die kind se nek gaan.” (“Do not knit, the cord will go around the child’s neck.”)

“Mag nie wasgoed ophang nie of swaargoed optel nie om ‘n miskraam te voorkom.” (“You should not hang washing on the line or pick up heavy objects to prevent a miscarriage.”)

The women shared this information very eagerly and with a sense of humour.

1.4 Perception of men about pregnancy and their support during pregnancy.

When asked what men thought about pregnant women, there were mixed reactions. More than half of the women said pregnancy was something beautiful for men and that they supported the women by helping at home with chores and by just spoiling them.

The other women felt that men were not respecting them and sometimes they even made fun of them. A few of the women stated that not all men were helpful during pregnancy.

1.5 Health facilities for women in general.

When asked what health facilities were available for women, all of them mentioned the clinic, hospital and private doctor. Some also mentioned the mobile

clinic service. Some women of the Stellenbosch farms also mentioned the farm health workers and a farm-based clinic.

1.6 Ideas about programmes to prevent babies with LBW.

A few women did not know what to suggest while others suggested alcohol use and smoking should be reduced, healthier eating habits and the distribution of food parcels, more recreational and activities aimed at developing skills and lighter work for pregnant women.

A few women were not so optimistic and said: “It really depends on yourself, you can’t help them to change – they will not listen”.

2. In-depth interviews with women on farms

Twelve interviews were conducted with women living on the farms. The details were as follows:

Farm	Place	Age of the woman	Number of children	Type of work
A	Vredendal	33	2	Domestic worker
B	Vredendal	40	2	Seasonal farm worker (cutting grapes)
C	Vredendal	30	1	Seasonal farm worker (cutting grapes)
D	Vredendal	29	3	Seasonal Farm worker (cutting grapes)
E	Vredendal	38	5 & expecting the 6 th child	Housewife
F	Vredendal	42	2	Domestic & welfare worker
G	Vredendal	24	1	Seasonal farm worker (cutting grapes)
H	Vredendal	42	4	Cook at the crèche
I	Vredendal	40	3 & expecting 4 th child	Seasonal farm worker (cutting grapes)
J	Stellenbosch	26	1	General & farm health worker
K	Stellenbosch	21	1	General farm worker
L	Stellenbosch	23	2	Domestic worker

2.1 Knowledge about pregnancy.

Different levels of knowledge were evident among individual women. An introductory question namely: "Do you prefer a small or big baby and why?" was asked. Nine women indicated that they preferred a big baby for the following reasons:

- "It is more healthier than a small baby."
- "A small baby is underweight and stays ill."
- "I will be able to manage the baby better."

Three of the women indicated that they preferred a small baby for the following reasons:

- "I like to care for a small baby."
- "'n Klein baba is meer geriefliker om voort te bring."("It is more convenient to give birth to a small baby.")
- "Die ander kinders wil die baba vashou – die klein baba is meer hanteerbaar."("The other children want to pick up the baby – you cope better with the small baby".)

Two out of the three women interviewed on Stellenbosch farms preferred a small baby, whereas only one woman in Vredendal preferred a small baby.

When asked about the weight of a normal size baby only one woman was sure about the normal weight. The rest mentioned 1kg, 2kg, 7kg and 10kg.

When asked about the signs of pregnancy, most of them referred to the absence of their menstrual period and bodily changes.

When asked how a pregnant woman can ensure a healthy baby, most of them responded by mentioning the eating of healthy food and abstaining from using alcohol and cigarette smoking.

When asked to explain healthy eating, the following food types were mentioned:

- "It is cabbage, carrots, potatoes, pumpkin, fruit and juice."
- ' Fruit and vegetables, you must drink milk, juice and iron."
- "Lots of fruit, drink milk – I cannot eat meat, chicken must be roasted."
- "Vegetables, fruit, lots of milk and cheese and things like that."

“Fresh vegetables, fruit – greasiness should be ignored – use water instead of oil when cooking meat.”

From the twelve interviews, only two women mentioned meat.

When asked where women went to find out if they were pregnant, most of them mentioned the clinic or hospital, while some mentioned the private doctor. One mentioned that a pregnancy test could also be done at home.

When asked when pregnant women were booking at the clinic, different responses were received:

“Young people are very headstrong and when they are more than four or five months, they report to the clinic.”

“With both my children, I went to book at four months.”

“I was two months pregnant.”

“When they are eight or four months pregnant”

“Six or four months.”

“Three months.”

“I was one month pregnant.”

When asked where they would go for help when experiencing problems during pregnancy, most of them mentioned the doctor or hospital. Only two women mentioned the clinic.

2.2 Availability of food and alcohol.

When asked whether food was available to buy, all of the women said food was available, however, not all of them could afford to buy the food. Women from six farms were interviewed and when asked about the availability of wine on farms, they indicated that five of the farms were not making wine available to farm workers. The workers got wine in town. One farm in the Vredendal area gave male workers one litre of wine on Fridays as part of their wages.

2.3 Awareness of effects of alcohol use and smoking during pregnancy.

When asked how they thought alcohol and smoking affected the unborn baby, the level of knowledge varied amongst the women.

“It may affect the heart, the baby is also very small and has not got a weight.”

“Lots of children are disabled – are born before the time.”

“A woman I know - her baby was drunk at birth.”

“When the child is big, he will think slower as well as reacting slower. If you drink too much then you can get the fetal syndrome – eyes that are far from each other – the child can be small or the child can be born abnormal.”

Some of the women spoke freely about their own alcohol use during their pregnancies.

2.4 Beliefs about pregnancy.

The responses were similar as those of the focus groups. One woman stated that she did not know of any beliefs and that she did not believe in those myths.

2.5 Experiences at clinic with first booking.

When asked what happened when women booked at the clinic, the responses were as follow:

“They get a card and a file and are examined, get tablets, check if the child is in the right position.”

“They check your high blood pressure, test blood, check the weight and give iron tablets, test also urine, listen to the baby’s heart beat.”

“Then the sister tested my urine and she showed me – she only tested my urine.”

“A file is opened, examining – they feel for the baby – they also say when the baby will be born.”

“They talk about the baby, they do a papsmear – they say what you should eat and not eat.”

“At the clinic blood samples were taken, onder in my is gekrap – ek is nie so lekker behandel nie – sommige susters is onbeskof.” (“they scratched in me – I was not treated so well – some of the sisters are rude”)

“They fill in a card and ask whether you smoke or drink.”

One woman mentioned that she was told what to eat and another woman was asked about her drinking and smoking behaviour. Both of them were from the Stellenbosch farming area.

2.6 The sister's management of cases of alcohol use and smoking.

When asked how the sister at the clinic addressed pregnant women who were smoking and using alcohol, the following were said:

"She tells you not to drink as the child is suffering."

"The sister talks a lot to them."

"The sister tells you it is wrong."

"She is angry."

"She speaks, she explains what smoking can do to a baby and alcohol cause a small and a disabled child."

"They did not say anything to me."

"They are very strict – they talk to the women who are smoking and drinking."

On two of the farms in the Stellenbosch area, the farm health workers addressed pregnant women about the effects of alcohol use and smoking during pregnancy. According to the one farm worker, she did not know how the sister at the clinic managed cases of alcohol use and smoking during pregnancy.

2.7 Support on farms for pregnant women.

When asked whether men supported pregnant women and in which ways, responses were mainly based on personal experiences. Most of them found their partners to be helpful and supportive especially with the carrying and lifting of heavy objects.

One woman said she did not know whether men were supportive or not.

When asked whether maternity leave was granted and how it worked, women gave different views about the number of leave days. Their views were also based on their personal experiences and what happened to other women.

You pay every month a week's wages. You can choose to stay at home for a year or you may return to work earlier."

"We get maternity leave up to six months – only certain women on the farm."

"I am still on maternity leave but did not see any money yet."

"You work until seven months pregnant – when the baby is a month old, you return to work."

"Four months maternity leave and you are paid while at home."

"You go on leave four months before birth and return when baby is four months old."

"I worked right through with my babies. When the child was a month old, I returned to work."

When asked whether women were encouraged to breastfeed, all of the women said that the clinic sister encouraged them to breastfeed. The farm health workers on two of the farms in the Stellenbosch area were mainly encouraging women to breastfeed.

When asked whether they were able to buy the basic food for the week with their wages, all the women from the farms in the Vredendal area stated that the money they were earning could not cover the basic food for a week.

The women on farms in the Stellenbosch area stated that the money they earned was enough to cover the basic food for the week. Some could even afford to buy clothes for the children.

When asked what clubs or organisations women belong to, all of the women said there were no clubs or organisations. The women of Vredendal did mention that they belonged to a church.

When asked about the services available to ensure the health of women in general, they mentioned mainly the clinic, hospital, mobile clinic and the private doctor. Two farms from the Stellenbosch area had farm health workers and one farm in the Vredendal area had a farm welfare worker.

2.8 Ideas about programmes to prevent babies with LBW.

Most of the women mentioned strategies for adopting healthy lifestyles regarding smoking, alcohol use and nutrition. Some also mentioned recreational activities to prevent alcohol use. They also stressed the responsibility of the pregnant women towards herself and the baby. One woman of the Vredendal area mentioned that the mobile service should come to the farms more often instead of once every six weeks.

3. Focus groups with health workers

Four focus group discussions were facilitated and the details were as follow:

Clinic	Place	Number of HCW	Category of HCW
A	Vredendal	3	1 RN 1 EN 1 ENA
B	Vredendal	4	2 RN 1 EN 1 ENA
C	Stellenbosch	6	6 RN
D	Stellenbosch	4	2 RN 1 EN

3.1 Knowledge of the effects of alcohol use, smoking and poor nutrition during pregnancy.

Different levels of knowledge were showed amongst the different categories of nursing staff.

In all the focus groups fetal alcohol syndrome and small babies appeared to be the most important outcome. Some of the nursing staff also mentioned the effects it might have on the mother.

“ Poor hygiene due to alcohol use”

“ She also does not come regularly for follow-up visits”

“ With the mother there could be social problems and miscarriages”

3.2 Screening and referral practices.

When asked about screening practices, some of the nurses made reference to the admission form with set questions. As the form did not allow for adequate questioning regarding alcohol use, smoking, poor nutrition and other forms of abuse, some of the nurses spent time asking mothers about these risk factors. They were also doing a basic history taking and determined socio-economic conditions to help with the assessment of nutritional status. They also made use of their observation skills by looking for signs of physical abuse. The registered nurse in charge of Cloeteville antenatal clinic mentioned that she built a trust relationship first and in that way, people talked much freely about their problems. Nurses from Vredendal said that women told them about their circumstances, while some of the nurses from Stellenbosch were of the opinion that not everybody talked about alcohol use.

With reference to referral or intervention practice when pregnant women were not gaining weight, abuse alcohol or suffer other forms of abuse, the following responses were given:

“ Assaults due to financial problems and family violence are referred to the police- we do not know whether they go to the police.”

“ We give information.”

“We do not think there is such a protocol.”

Underweight mothers or pregnant women are not usually referred to the hospital – they are tested for TB – we first cancel out all other illnesses.”

“ We refer to the social worker who will do the other referrals.”

“ Assault are referred to the hospital or day hospital – there is a doctor.”

Only one clinic mentioned the following-up of high-risk behaviours e.g. smoking.

In Stellenbosch social problems were also referred to the psychologist.

3.3 Information given to pregnant women regarding diet, smoking, alcohol use and other forms of abuse.

In Vredendal information was given to the mothers by the nursing staff, while in Stellenbosch health promotion activities were covered in detail by health promoters. This service was however, clinic-based. The nurses also acknowledged that the women discarded the pamphlets as soon as they have left the clinic.

3.4 Perceptions of the lifestyles of pregnant women on farms.

The lifestyles of these women were described in the following ways:

“ Women are not neat, poor hygiene – high percentage of alcohol use and smoking, they eat poorly, too many children, high illiteracy rate, high rate of teenage pregnancies.”

“Most of them are from the farms, low socio-economic group.”

“ They do know how to ensure a healthy baby, because they do get enough information, some of them have a “I don’t care” attitude.”

“ Some of them do not take into consideration what you tell them – most of them come to the clinic for the first time and then they just stay away.”

When asked whether there was a difference between planned and unplanned pregnancies with regard to negative habits continuing during pregnancy, the nurses were in agreement that mothers who planned their pregnancies were more motivated as the ones who did not plan. Those who planned their pregnancies concentrated more on their eating habits and visited the clinic regularly. They were also happier.

The nurses were, however, of the opinion that most pregnancies were unplanned and that most of the mothers simply accepted it and made the most of it.

When asked whether there was a difference between teenage pregnancies and others with regard to negative habits continuing during pregnancy, the nurses of Vredendal unanimously stated that teenagers were smoking and drinking less than the older woman and that teenagers were more interested in their babies' weight and the overall well-being of the child.

Both nurses from Vredendal and Stellenbosch mentioned that teenage pregnancies were a fashion ("Dit is 'n in-ding vir tieners om swanger te raak").

The nurses from Stellenbosch felt that they struggled with the teenagers, as these teenagers did not come to the clinic regularly, they were drinking and smoking more than adults and were promiscuous.

Both Vredendal and Stellenbosch mentioned a high rate of unemployment and, school drop-outs amongst teenagers.

3.5 Opinion about whether women are able or unable to change during pregnancy.

Different views were shared amongst the nursing staff.

"Eating habits are difficult to change as a result of the socio-economic conditions, drinking and smoking are also difficult to change, but the violence situation could be changed."

"The alcohol intake can be changed."

"They can be more hygienic – they can be more responsible."

"The smoking story is very difficult to change."

"Some say that they will have a problem to stop smoking."

"The view that I must have a baby is difficult to change."

All of the nurses were in agreement that it was difficult to stop smoking.

3.6 Recommendations to ensure that fewer babies are born with LBW.

These recommendations were very broad and were not focussed within the parameters of the nursing practice only. It included the creation of more job

opportunities, more involvement by farm women, more recreational facilities, support-groups for women, school programmes aimed at reducing teenage pregnancies, educational videos with supervision, more effective family planning services, more mobile services, food parcels and the appointment of more appropriately trained staff.

4. Semi-structured interviews with health workers

Three semi-structured interviews with three health care workers who did not participate in the focus groups were conducted and details were as follows:

Clinic	Place	Category of HCW
A	Vredendal	Registered Nurse
B	Stellenbosch	Enrolled Nursing Assistant
C	Stellenbosch	Health Educator

4.1 Knowledge of the effects of poor nutrition, alcohol use and smoking during pregnancy.

They mentioned more or less the same effects as those mentioned, in the focus group discussions. Fetal Alcohol Syndrome was over-emphasised and the effects it might have on the mother were not mentioned at all. LBW, small for gestational age babies, and learning problems later at school were also mentioned.

4.2 Screening and referral practices.

When asked how they were screening for diet, smoking, alcohol and family problems, the following responses were received from Vredendal:

“ We check the weight – is she picking up or not, we ask if they smoke, drink when I book them, then you listen, see if the woman is drunk.”

“The issue around family violence is referred to social services – further there is not much I can do, as a case must be made – depending on the client.”

“ If they do not pick up weight then I check for TB or HIV/AIDS status – then we give supplements for mothers who are breastfeeding and pregnant women.”

“They are also referred to the doctor.”

The health promoter of the Stellenbosch clinic said problems were picked up by speaking to different groups and presenting different topics depending on how far their pregnancies were. Clients with problems were referred to the registered nurse.

At the time of the interview (12/3/03), the mobile service of the Stellenbosch area did not render an antenatal service for pregnant women. They were, however, referring problems to the day hospital, the social worker and to Women on Farms, a community based organisation.

4.3 Information given to pregnant women regarding diet, alcohol use, smoking and other forms of abuse.

In Vredendal the nurse of the mobile services provided information regarding alcohol and smoking emphasising the effect it might have on the baby. They also provided information about eating enough and eating correctly. Information was given verbally and by means of pamphlets.

In Stellenbosch information was given by the health promoter using different teaching methods. The information covered a wide range of issues and was provided at various sessions and at various levels. A comprehensive package, covering mother and child topics were presented. This information was, however, only given to women attending the clinic in Stellenbosch.

4.4 Perception of lifestyles of pregnant women on farms.

When asked how the lifestyles of pregnant women they interacted with could be described, the response of the nurse of the Vredendal mobile services was:

“ Women are here just for cooking, getting children and raising them – It is a day-to-day struggle”

In Stellenbosch lifestyles differed from person to person and area to area.

When asked what they thought women’s understanding of ensuring the birth of a healthy baby was, the health workers raised different views:

“ Some women go out of their way to look after themselves – then there are those who do not care”

The nurse working on the farms in Stellenbosch said many women were uninformed, they said they have learnt when speaking to them.

“Mothers are saying that should they have a healthy baby, they do not have to go to the clinic so often.”

When asked whether there was a difference between planned and unplanned pregnancies with regard to negative habits continuing during pregnancy, they responded as follows:

“ Most of the pregnancies are unplanned – a lot are saying they do not want another child, but then they are already pregnant.”

“The women also don’t come for family planning – hulle wil bewys dat hulle kinders kan kry.”

“There is a big difference. The person with the planned pregnancy work out their money affairs – what you can afford and what you cannot afford”

“A few years ago women did not worry – now they are more aware of the resources that can be of assistance. Men do not tell them how many children to have any more. Mothers do not want to have more than two children.”

When asked whether there was a difference between teenage pregnancies and others with regard to negative habits continuing during pregnancy, the nurse of Vredendal replied as follows:

“ Some teenagers smoke dagga.”

“ Their babies are better cared for then the older women look after their babies.”

The health care workers from the Stellenbosch area mentioned that:

“The younger generation is more adaptable to change.”

“The older women do not want to change easily.”

“ They continue to do things like in the old days – there is really a difference.”

4.5 Opinion about whether women are able or unable to change during pregnancy.

Different opinions were expressed regarding high-risk behaviours. Some felt it was difficult to change as people were exposed to it since childhood days and that some was doing it for pleasure. They also mentioned the difficulty to stop smoking and to use alcohol as well as the difficulty to force people to change. One health worker based her opinions on her own personal habits.

4.6 Recommendations to minimize the number of babies with LBW.

In Vredendal the recommendations focused on the services and the support from the farm owners to a certain extent. The health worker expressed the need for a private room on the farm to conduct proper interviews as well as more frequent visits to the farm.

The recommendations from the Stellenbosch area focused on community involvement and the role of the schools. They felt that more focussed sexual development programmes should be presented at schools and that the current youth programmes and the activities of the ‘Dopstop’ Association should continue.

The health promoter of the Stellenbosch clinic also recommended that more personnel should be trained as health promoters.

5. Observation exercise

Ten farms in Stellenbosch and eight in Vredendal were visited during the observation exercise.

5.1 Living conditions of farm workers.

In Vredendal ten to fourteen families were living on a farm. They lived in one-bedroom houses, except for the domestic workers who lived in two-bedroom houses in most cases. On the farm with fourteen families there were two outside toilets and one outside tap for the use of everybody. They were buying baths to wash themselves and for the washing of the laundry. Ten families living on a farm shared one toilet and in the event of the toilet being blocked, they relieved themselves in the vineyards. Houses only have one small window and were generally very poorly ventilated. Most of them were not having decent furniture and cooking facilities. Electricity was not available on most farms. Workers living on the farm were not allowed to use water for gardening purposes. They worked unprotected in the sun e.g. no hats for workers and their babies during harvesting time.

In Stellenbosch the conditions varied from farm to farm. Most of the farm workers had electricity and water. Some of them were, however, complaining of the fees they had to pay on a weekly basis. Most of them lived in slightly bigger houses e.g. two-bedroom houses. They also had more sanitation facilities than their counterparts in Vredendal. On one of the farms, farm workers were having access to a public telephone, situated close to where they lived. On some farms workers were dressed in uniforms, including hats to protect them from exposure to the sun

during harvesting time. On other farms there were no protection from the sun, not even for the children on their mothers' backs.

5.2 Facilities on farms.

In Vredendal there were no crèche facilities as well as facilities for the mobile clinic nurse e.g. a room, water or toilet facilities.

In Stellenbosch a number of farms had crèches and some also had aftercare facilities for school children. Some farms had a clinic room, which was utilised by the farm health worker. There were, however, farms without any facilities.

The daily activities of unemployed women on farms in both areas included the following: making breakfast for husband and children in the morning, taking children to school, taking babies to mobile clinic if it was there and baby was due for immunization or if the baby was sick, cleaning the house, making lunch for the working men, visiting other women also not working, going to the "dorp" (town) to buy food or to visit the clinic or social worker if necessary and making supper.

5.3 Observation of mobile services

In Vredendal and Stellenbosch there were set routes covering farms. In Vredendal farms were visited every six weeks and in Stellenbosch every four weeks. Approximately ten farms were visited per day and an average of ten clients were attended to per farm. An average of thirty to forty-five minutes were spent on a farm. Although the mobile units were well equipped, space and privacy were insufficient. The mobiles of the Stellenbosch area were more modern than that of

the Vredendal area. When parking on a slight incline on some of the farms in Vredendal, bricks were used to prevent the mobile from rolling back.

The maximum number of staff that could go with the mobile was three staff members. In Vredendal the HIV/AIDS lay counsellor accompanied the nursing staff and was responsible for pre-test counselling, giving of the result and post-test counselling of clients. The counselling of clients took place in their respective homes. In Stellenbosch the sister was only accompanied by an enrolled nursing assistant.

The service rendered focused on the presenting physical problem and growth and monitoring of children, including immunisation services. The sister was not seeing those workers who were busy working on the farm. The only people seen were those at home, including the children. Workers only made use of the service during break time if the mobile services happened to be there at that moment. At the time of the observation exercise, the Stellenbosch mobile services were not rendering antenatal services on the farms. Health education was done on an individual basis and it was limited to address a specific need. Treatment protocols were in line with Provincial and National guidelines.

The record keeping systems and statistical forms for routine monthly reports were similar to those of the municipal clinics namely the Routine Monthly Reports, cards and folders for the details of the client.

DISCUSSION

In exploring the knowledge, attitudes, practices and cultural beliefs of childbearing women on farms and those of the health workers with regard to a healthy pregnancy, this study has identified some inadequate health practices in need of improvement.

Knowledge and attitudes towards a healthy pregnancy

All the research methods in this study triangulate the finding that the health workers are well informed about the effects of alcohol use, smoking and poor nutrition on pregnancy outcome. The level of training of the different categories of nurses was reflected in the way they mentioned the effects. Registered nurses described the effects more in detail while the enrolled categories were limited in their responses. The women indicated varying degrees of knowledge regarding a healthy pregnancy. Women of the Stellenbosch area found it difficult to mention the signs of pregnancy and some of them also indicated their preference of a small baby. The majority of women were not able to indicate the weight of a normal size infant. This could be due to a lack of time being spent with mothers to discuss the weight of babies during growth monitoring sessions. The results of the observation exercise also revealed that most women made use of the family planning services only with the approval of their partners. From the group discussions and interviews it was quite evident that males on the farms decided when women should become pregnant.

The women were aware of the effects of poor nutrition, smoking and alcohol use during pregnancy. This is consistent with the findings of a survey done in the Western Cape where knowledge ranged from minimal to excellent regarding the

potential teratogenic effects of alcohol (Croxford & Viljoen 1999: 964). Some of them personally experienced it, while others knew of people who have suffered the effects. This health behaviour is consistent with some of the constructs of the Health Belief Model as women are aware of the chances of getting the condition and the severity of the condition (Glanz 1998: 1). To take action is however limited as a result of an unsupported and hostile environment.

With regard to healthy foods, the women were mostly aware of vegetables and fruit. Women were also generally confused about maternity leave as it was implemented differently on various farms. When looking at the information giving practices of the health workers, differences in the approaches of the two areas were evident. In Stellenbosch health information at the clinics was part of a comprehensive health promotion programme managed by a health promoter. In Vredendal the nurses were still solely responsible for the education of clients. The programme of the health promoter, however, did not reach the women on farms, as they were not accompanying the mobile services. Women who failed to come to clinics were also not covered by the services. The nurses in Vredendal acknowledged that the information pamphlets they were issuing to clients were discarded as soon as women left the clinic. These two scenarios could directly contribute to the lack of information women displayed regarding healthy balanced meals during pregnancy and maternity benefits as outlined in the BCEA. The BCEA (1997: 18) state that employees have the right to four consecutive months of maternity leave and may start maternity leave at any time from four weeks before the expected date of birth of the child.

The fact that Stellenbosch did not have antenatal services until 31/3/03 also meant that valuable information regarding healthy lifestyles during pregnancy was not given.

There were no myths, which resulted in harm to the unborn baby and mother during pregnancy. In accordance with the Health Action Model the myths of the women are an integral part of their belief system directing behavioural intentions (Tones 1995: 18). More information on pregnancy, fetal development and nutrition may, however, reduce less healthy myths in future.

Antenatal practices and experiences of women at the ANC

The results of the interviews, focus group discussions and observation of the mobile services, suggest that screening regarding alcohol use, smoking, poor nutrition and other forms of abuse, was inadequate. Although some health workers mentioned that they made use of different approaches to obtain information, some also mentioned that a lot of women did not talk openly about high-risk behaviours. The women reported mainly the physical examinations done by the sister with the first booking. Only two women mentioned receiving information regarding smoking, alcohol use and nutrition. This practice is not in accordance of the South African guidelines on Antenatal Care as discussed in the literature review. Screening for pregnancy problems and provision of information to all pregnant women are clearly outlined (Department of Health 2000: 18).

The women were also careful to mention their risky behaviours as some nurses were displaying anger towards them. This could also be part of the reason why women deny or fail to report high-risk behaviours. This finding is consistent with the results of a previous study where an evaluative study of the health promotion

activities for women at risk for alcohol intake during pregnancy found that women tend to deny or underreport levels of drinking in screening situations (Tversky 2001:58).

The management of cases of alcohol use, smoking and poor nutrition by the nursing staff involves the reprimanding of clients to stop unhealthy habits and also by making them feel guilty and bad about their behaviour.

When detecting risk behaviours e.g. a woman not gaining weight during pregnancy as a result of alcohol use or smoking, most health care workers will refer the client to the doctor, social worker or psychologist. In the case of domestic violence, they will refer the matter to the police. They did not mention whether they followed up the cases they have referred. Some of them also did not know whether women really went to the police. This shows a lack of support to women and cause women to lose faith in the health and justice system. Any future health promotion programmes aiming at the empowerment of these women will have to focus on building healthy public policy, which will ensure environmental support providing women some control over their lives. Such a health promotion programme will be in line with the principles of the Health Action Model.

Practices of pregnant women on farms and how they are perceived by health workers

The results of the research methods confirmed that women were drinking and smoking during pregnancy. The women acknowledged it during the focus group and in-depth interviews. While most of them knew about pregnant women drinking and smoking, some of them spoke freely about their own high-risk

behaviours. According to the health workers there were high rates of illiteracy, alcohol use and smoking amongst women on the farms.

According to the women unplanned pregnancies were common but they agreed that it was coupled with less healthy lifestyles. Health workers on the other hand were concerned about the high rate of unplanned pregnancies and in particular teenage pregnancies. Health workers of the Stellenbosch area were very concerned about the fact that many fathers of teenage mothers' children are in prison due to gangster related criminal activities. Health workers were of the opinion that teenagers become pregnant in order to qualify for a state grant in accordance with the social assistance legislation. The Social Assistance Act stipulates that a person shall be eligible for a child support grant in respect of a maximum of six children (SAA 1992: 7).

Some of the women reported that their partners supported them during pregnancy by mainly lifting heavy objects. Others again stated that they were not supported at all during their pregnancy. None of the women, however, reported episodes of violence, specifically domestic violence they have experienced during pregnancy by their male partners. This is of concern because the health workers referred on numerous occasions to women being physically abused and referred to police stations and social workers. The literature review also mentioned a study that was done by the Dop Stop Association (2001: 6) in which a link between drinking, accidents and violence was reported. This could also be indicative of violence being accepted as a norm or a lack of understanding and support regarding their rights in accordance with the Domestic Violence Act (DVA 1998: 8).

Health workers also perceived women on farms to live in poverty. Some women of the Stellenbosch area felt that they earned enough money to buy food, while all

of the women from the Vredendal area stated that the money was not enough to cover the basic food for a week.

Taken into account the living conditions on the farms with inadequate sanitation facilities, lack of electricity and poverty it was not surprising that some of the health workers mentioned that some women were untidy and not well groomed. According to the women it is difficult to maintain a high self-esteem in those conditions.

Ideas to reduce LBW

The ideas to reduce LBW were suggested by the women and health workers during the in-depth and semi-structured interviews as well as the focus groups for women and health workers. The ideas of the women and health workers were very similar and focussed on three areas namely development, education and services.

The women also mentioned what they themselves could do to reduce LBW e.g. regular visiting of the clinics and adopting healthier lifestyles by specifically reduce alcohol use and smoking.

The women and health workers realised that any attempt to reduce LBW would require involvement from the various relevant sectors to initiate social change to combat LBW on the farms.

Women were more conscious than health workers about the role the farm owner needed to fulfil to reduce LBW e.g. the payment of a living wage and skills development activities. Health workers on the other hand suggested more mobile services, food parcels and more appropriate staff. The ideas of the women and health workers to reduce LBW is consistent with the conclusion of a study that examined the relationship between social factors and LBW and the ways in which

disparities in socio-economic status have been addressed over time. According to Hugh & et. al. (1995: 97), LBW would be most effectively addressed through a dedicated, national commitment to assuring adequate support to individuals and families, including ample income and health care.

The potential for change

The results of the focus group and semi-structured interviews with health workers suggest that in terms of healthy behaviours it is difficult to stop smoking. Some of the health workers reflected on their own behaviour and based their responses on that. They were, however, positive about the fact that alcohol use as well as violent behaviour could be reduced. They felt that eating habits depend on the socio-economic conditions of the women on the farms. According to the Health Belief Model this is a real barrier to healthy eating (Sheeran et. al. 1995: 42). The women have little control over this situation. However, in terms of the Health Action Model, healthy public policy with regard to a living wage and affordable essential food prices for example, may allow the women to gain some control over their socio-economic conditions (Tones 1995: 18).

Although they felt that it was difficult to change the idea of “I must have a baby”, information about healthy behaviours before conception could at least ensure a better outcome.

The results of the observation of the conditions on farms suggest, however, that there are obvious barriers preventing women on the farms to change their behaviours. The farming community is to a great extent isolated from the rest of the urban community with no support structures in terms of organised labour,

social support and general recreational activities. Farm property is regarded as private property and access to farms for union organisers is a barrier in itself.

Low wages for farm workers and the fact that some farms are still practicing the 'dop' system, could only serve to reinforce the web of poverty with endless adverse physical, emotional and social consequences for the health of the women and their families. This is consistent with the findings of London et. al (1999: 1409).

The high rates of teenage pregnancies and unplanned pregnancies are as a result of the conditions on the farms. One-bed-roomed houses with inadequate sanitation facilities are not conducive for learning and development. This leads to the high rate of school drop-outs and the continuation of a vicious circle.

Another obvious barrier to improve the health promotion services is the lack of appropriately trained health promoters. The Vredendal area, do not have the services of a dedicated health promoter, leaving the already overloaded nurses to address it haphazardly. The Stellenbosch antenatal clinics are enjoying the services of health promoters, but they are based only at the clinic and do not cover the women on the farms. It is understandable that the health promoter alone will not be able to make a difference. This person is, however, a key person in the health promotion process and can initiate action directed towards social, environmental and economic conditions by contributing to the creation of a supportive environment and developing personal skills. This is in line with some of the priority action areas for health promotion as outlined by the Ottawa Charter (WHO 1986).

The fact that some of the health services are still fragmented could also be a barrier contributing to the high rate of babies with LBW. The antenatal services

and family planning services are management by different authorities. Women of childbearing age are suppose to get most of the information about healthy pregnancies when they are in a process of planning their families and not only when they book for the first time at an antenatal clinic. In order to address this issue, health authorities should revisit the goals of the district system as discussed in the White Paper for Transformation of the Health System in South Africa (1997: 207) and continue the process of reorganising the health services. By integrating the antenatal and family planning services, health consumers will benefit by receiving a comprehensive reproductive health service.

Limitations of the study

This study focused on the women working and living on farms in the Vredendal farming area and the Stellenbosch farming area. This study forms part of a bigger healthy childbearing study and this part of the study was only to explore the knowledge, attitudes, practices and cultural beliefs of women on farms and those of health workers. The conclusions and recommendations therefore, will not include comprehensive inter-sectoral approaches addressing the problem of LBW as this will be dealt with in detail by a co-researcher dealing with the implementation and evaluation of health promotion programmes aimed at reducing LBW.

Limitations with regard to the methodology include the fact that only nursing staff participated in the focus group discussions as social workers, health promoters, nutritionists and psychologists were not available due to other work commitments. Another limitation was the limited time that is available for focus group discussions and interviews during lunch hours on farms. There are also

unnecessary channels of communication to follow in order to obtain permission to access farms.

The results of this study also indicates a need for researching healthy and unhealthy habits e.g. smoking of health workers and its effect on promoting health in health care settings.

CONCLUSION

By exploring the knowledge, attitudes, practices and cultural beliefs of women on farms and health workers in the Vredendal and Stellenbosch areas of the West Coast/Winelands region of the Western Cape, strengths and aspects requiring support for women have been identified as well as strengths and gaps of the antenatal health services.

The strengths of women include the following:

- They have some knowledge of health in pregnancy and the majority prefer big babies.
- There are no myths or beliefs, which result in harming the mother or the unborn baby during pregnancy.

Aspects requiring support are:

- Women do not have the support or an enabling environment to easily reduce smoking and alcohol use.
- Women do not have the financial support to improve nutrition during pregnancy.
- Women do not have support to exercise control over their fertility.
- Women do not have the support to protect herself from physical abuse.
- A high proportion of pregnancies are unplanned and could be at higher risk for unhealthy habits if support from the health service and the community is inadequate.

Gaps in the services

- ANC services are provided but with inadequate levels of screening, counselling and follow-up.

- Inadequate referral protocols.

Strengths of the services

- Health workers believe that some unhealthy habits can be changed.
- Women and health workers have some ideas about how the opportunities for more healthy childbearing could be increased.

Finally, it is important for health workers to address some of these challenges that are within their circle of influence, meaning what they can do within their daily practices to provide a better service. There is no doubt that LBW on farms should be addressed by means of a multi-sectoral programme, but these are lengthy processes. Therefore, whatever the services can do now to benefit the women, should be done without hesitation.

RECOMMENDATIONS

These recommendations are aimed at addressing the gaps identified in service delivery. Some recommendations are based on the ideas of the women and of health workers.

Improvement of ANC services

- Review screening methods and develop screening tools, which will allow for adequate screening and counselling of lifestyle factors.
- Plan more effective awareness exercises on the reproductive rights of women in an attempt to empower them to take control over their fertility.
- Develop follow-up protocols for high-risk women.
- Closer collaboration and networking with farm health workers.
- Develop a working partnership between the ANC and the Family Planning Services. This will ensure that women are orientated to healthy childbearing practices before becoming pregnant.

Staffing and continuous development

Although this is linked to improvement of services, it deserves to be highlighted separately, as it is a pillar of strength for any service delivery.

- Continuous development for all categories of staff regarding reproductive health, the rights of women and healthy lifestyles during pregnancy, especially for the enrolled categories of nursing staff. (Enrolled categories are interacting with most of the clients.).
- Appointment and training of more health promoters for antenatal clinics, family planning services and mobile services.

- Review of the effectiveness of the mobile services and overall capacity building of the health services on farms.
- The relevant authorities need to explore ways of making access to appropriate services for women on farms possible.
- The establishment of support groups for women on farms with babies with LBW. This will lead to an increase awareness of healthy lifestyle practices.
- The establishment of reference groups in Vredendal and Stellenbosch involving representatives of the relevant NGO's, CBO's and the various sectors to plan programmes based on the ideas of the women on farms and health care workers to reduce LBW. The reference group will also have to ensure implementation, monitoring and evaluation of such programmes. This will lead to ownership of programmes by the community and eventually to some form of sustainability of programmes.

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APPENDICES

- A. Interview schedule for women on farms
- B. Schedule of semi-structured questions for women focus groups
- C. Schedule of semi-structured questions for health care workers' focus groups and interviews
- D. List of observations
- E. Data collection programme
- F. Letter to obtain permission to collect data