

# Awareness and use of folic acid in a Saudi pregnant population

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# The team



# Aims



To evaluate current awareness and use of folic acid supplementation in pregnant Saudi women

In the future to look at folic acid use following educational programmes and campaigns

# Introduction



- ▶ “Neural tube defects (NTDs) are among the most common birth defect in the United States”.
- ▶ NTD Registry at KFSHRC, Riyadh: 3–4 hundred thousand infants worldwide are born with spina bifida and anencephaly each year. The prevalence is around 1–5 per 1,000 live births and the risk of recurrence is 2–3%. A total of 579 patients were registered from October 2000 to December 2009 . 98% of mothers did not take FA preconception and only 19% started in the first trimester
- ▶ Mothers on prenatal multivitamins containing FA have a decreased risk of severe congenital anomalies including NTDs

# Background

- ▶ In 1996 Oman became one of the first countries in the Middle east to require wheat flour fortification followed by Saudi Arabia in 1997
- ▶ In 2001 in KSA, folic acid fortification of wheat flour became mandatory (1.5mgs each kg of flour)
- ▶ There has been a 60% decrease in NTD prevalence in Saudi Arabia since fortification
- ▶ Over 28,000 NTDs prevented in 2010 due to flour fortification
- ▶ Fortification alone however does not give enough protection against NTDs

# The study starts.....



- ▶ Use of FA remain low before conception and prior to NT closure
- ▶ It was against this background that we decided to evaluate the awareness and use of FA

# Methods and Materials



- ▶ Ethical approval was obtained from the Research Ethics Committee
- ▶ Verbal consents were obtained from patients.
- ▶ Questionnaires were completed by the investigators at the time of the prenatal visit, between April 2011 and May 2012.
- ▶ The power and sample size calculations have been based on other studies that have shown folic acid awareness in other populations is approximately 12% (5).
- ▶ The questionnaire included the pregnant woman's age (below 35 yrs. or above 35 yrs.).

# Questionnaire



Questions were:

- ▶ Pregnant woman's age (below 35 yrs. or above 35 yrs.).
- ▶ Gravidity
- ▶ Level of education and occupation
- ▶ Previous child with a NTD
- ▶ Whether folic acid was started during pregnancy or before conception
- ▶ How long before conception was folic acid started
- ▶ Whether folic acid was taken in previous pregnancies
- ▶ Does the woman know the reason for taking folic acid and when to stop it



# Results



Total No. of Participants = 254

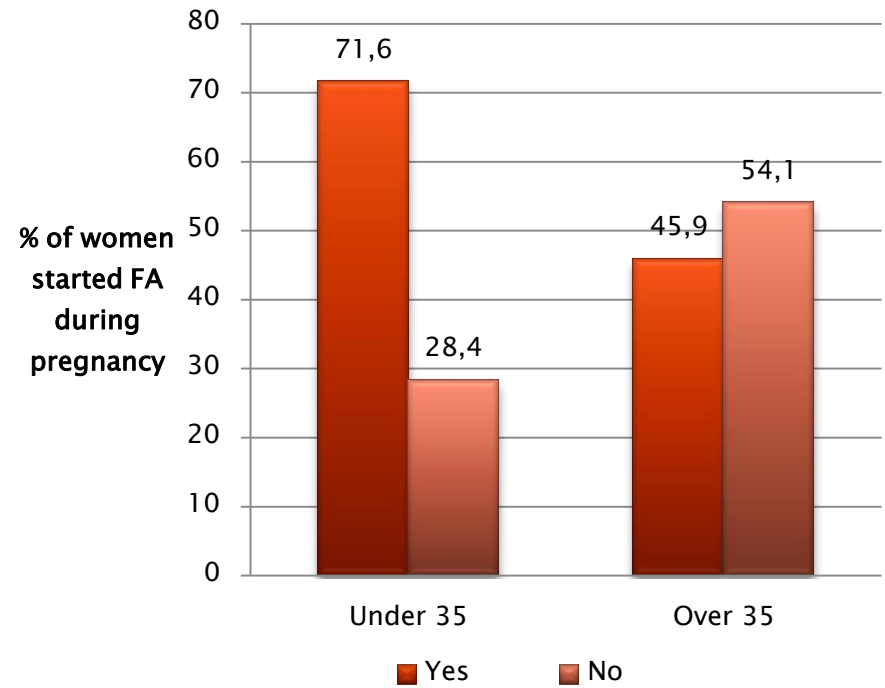
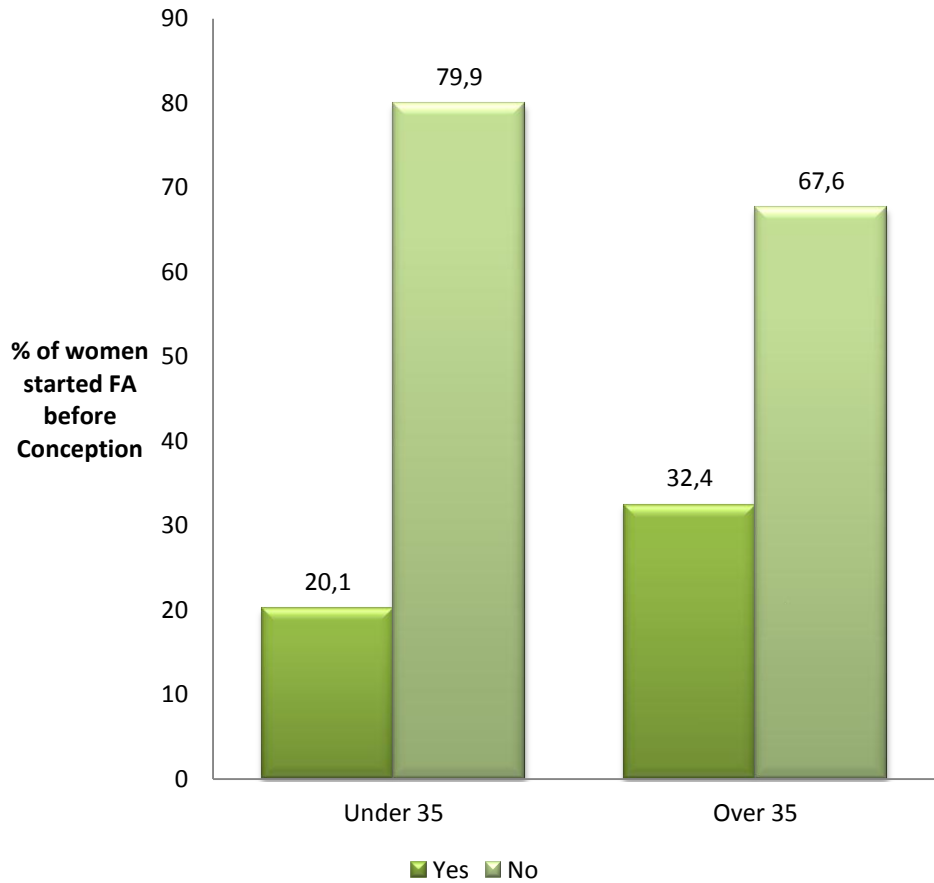
Parameters	Percentage
Age: < 35	85.4
>35	14.6
Higher education	60.7
Previous NTD	2.8
Primagravida	28.4
Started folic acid during pregnancy	67.7
Started folic acid preconception	21.5
Used folic acid in previous pregnancy	62.2
Knew the reason for using the folic acid	51

# Results



- ▶ 67.7% started FA during pregnancy
- ▶ 21.5% started preconception
- ▶ 62.2% used in a previous pregnancy
- ▶ 51% knew the reason for taking FA

# Results



# Discussion and Conclusion



- ▶ This cross sectional study has given insight into patient awareness and barriers of FA supplement compliance.
- ▶ The knowledge acquired can assist in improving outcomes in Saudi women of childbearing age.
- ▶ This information can be used to develop a folic acid awareness programme for the pre-marital health screens before marriage.
- ▶ A diet supplemented with FA and a daily multivitamin with 5mgs FA should begin at least 3 months pre conception and continue until 10-12 weeks after conception.
- ▶ This study demonstrates the need for improved education amongst Saudi women regarding the benefits of folic acid.
- ▶ Further research could focus on the outcomes of such interventions

# References

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# Thank you

